

Draft Module Material



Documentation Assistant

(QUALIFICATION PACK: Ref. Id. LSC/Q1122)

Sector: LOGISTICS

Grade XI



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Preface

Vocational Education is a dynamic and evolving field, and ensuring that every student has access to quality learning materials is of paramount importance. The journey of the PSS Central Institute of Vocational Education (PSSCIVE) toward producing comprehensive and inclusive study material is rigorous and time-consuming, requiring thorough research, expert consultation, and publication by the National Council of Educational Research and Training (NCERT). However, the absence of finalized study material should not impede the educational progress of our students. In response to this necessity, we present the draft study material, a provisional yet comprehensive guide, designed to bridge the gap between teaching and learning, until the official version of the study material is made available by the NCERT. The draft study material provides a structured and accessible set of materials for teachers and students to utilize in the interim period. The content is aligned with the prescribed curriculum to ensure that students remain on track with their learning objectives.

The contents of the modules are curated to provide continuity in education and maintain the momentum of teaching-learning in vocational education. It encompasses essential concepts and skills aligned with the curriculum and educational standards. We extend our gratitude to the academicians, vocational educators, subject matter experts, industry experts, academic consultants, and all other people who contributed their expertise and insights to the creation of the draft study material.

Teachers are encouraged to use the draft modules of the study material as a guide and supplement their teaching with additional resources and activities that cater to their students' unique learning styles and needs. Collaboration and feedback are vital; therefore, we welcome suggestions for improvement, especially by the teachers, in improving upon the content of the study material.

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MODULE 1**BASICS OF SUPPLY CHAIN, LOGISTICS AND WAREHOUSING****Module Overview**

In ancient story about the tortoise and the hare, "slow and steady" turtle won the race as the speedy and overconfident rabbit fell asleep and lose the race. That may have been true in ancient time, but in today's ICT age and demanding business environment there is no scope for "slow and steady" in the business. Rather there is a need for fast, effective and efficient supply chain in distribution of final products to customers. Supply chain is the backbone of any business to serve to customers as these days business environment managers recognize that getting products to customers faster will improve company's profit. Stocks of different categories are managed in an effective and efficient manner and to remain profitable, companies must seek new ways to improve supply chain, like load planning, route planning and distribution network design.

Logistics operations have its own significance, as to keep up with the market there is a need to be easily and widely available in the market because faster product availability is key to increasing sales. For example if two products with the same specification launched at the same time by two different companies and after one or two months the shortage of one product arises in the market then there will be substantial profit advantage for the extra time that other company is in the market. Resulting of which the customers will slowly shift to other company's product and get more orders and more market share. Thus ability of the product in the market can make or break a sale which ultimately depends on supply chain.

The knowledge and skills on the supply chain and logistics aspects are the subject matter of this module. The module is divided into four sessions and the learning of the students will be based on the outcomes of each sessions.

Learning Outcomes

After completing this module, you will be able to:

- Describe the supply chain;
- Explain the Logistics;
- Explain the basics of inventory and logistics operations;
- Describe Basics of Warehouse, transport and documentation assistant;

Module Structure

Session 1: Introduction to Supply Chain

Session 2: Concepts of Logistics

Session 3: Introduction to Inventory and Logistics Operations

Session 4: Basics of Documentation Assistant

Session 1: Introduction to Supply Chain

Supply chain is the flow of goods and services, involves the movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption.

Supply chain is the management of a network of interconnected businesses involved in the ultimate provision of product and service packages required by end customers. It spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point-of-origin to point-of-consumption. The companies must have effective and efficient supply chain network to successfully keep up in the existing marketing environment.

Due to globalization and expanding of multinational companies the supply chain has become crucial for the success of the Organisations. Technological changes have brought the cost factor for information flow quite low thus increasing the flow of information and coordination among the members of the supply chain network.

Supply chain is the backbone of business in global and competitive world market. Supply chains are increasingly becoming more complex and dynamic. The success of the business often depends on the success of your supply chain.

Supply chain has a management of three flows:

1. Material/product flow
2. Information flow
3. Financial flow

Material Flow: in this physical product flow from supplier to customer, this is one directional or unidirectional flow. However in certain cases when customer returns the product the flow goes in other direction.



Figure 1.1: Material Flow in Supply Chain

Information Flow: In this the information flows from supplier to customer and then customer to supplier. This is bidirectional flow, that is it goes both directions in the supply chain such as purchase order, delivery status and invoice and customer complaint.

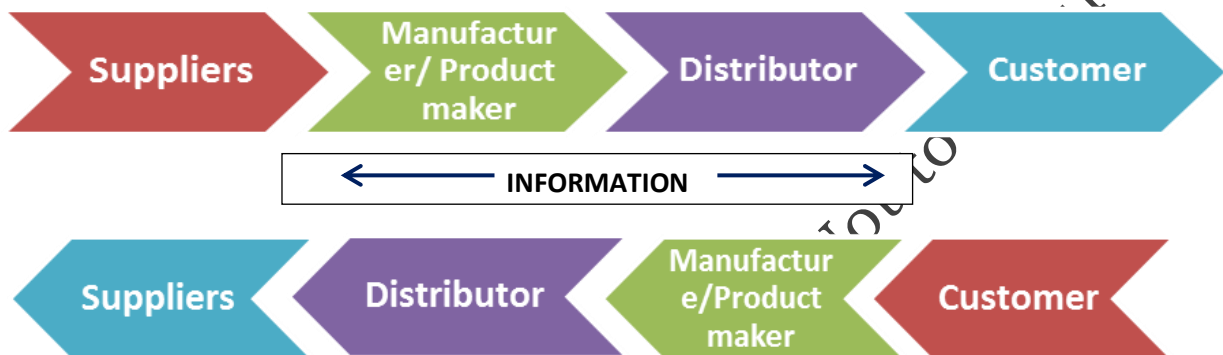


Figure 1.2: Information Flow in Supply Chain

Financial Flow: In this the money flows from customer to supplier, when customer receives the product and verifies it he pays and money goes to suppliers. In some cases money flows from supplier to customer in form of debit.



Figure 1.3: Financial in Supply Chain

FUNCTIONS OF SUPPLY CHAIN

The supply chain is not only includes the manufacturer and suppliers, but also transporters, warehouses, retailers, and customer themselves.

Supply chain management is a cross-functional approach that includes managing the movement of raw materials into an organization. Movement of finished goods out of the organization and toward the end consumer. These functions are increasingly being outsourced to other firms that can perform the activities better or more cost effectively. Functions of supply chain are as follows:-

- Inventory management
- Transportation service procurement
- Materials handling
- Inbound transportation
- Transportation operations management
- Warehousing management
- Customer service performance monitoring
- Order processing/customer service
- Supply Chain Management budget forecasting

TYPES OF SUPPLY CHAIN

Types of supply chain varies with the nature of the organization for example some companies works on the traditional model it produce items then store it in warehouse and other locations whereas some companies work on modern model where it produces items based on the orders received then there is no need to store finished product but they require storage of raw material and components.

Following four common models are as given below:

1. Integrated make-to-stock
2. Build-to-order
3. Continuous replenishment
4. Channel assembly

Integrated make-to-order model: this model is used to track customer demand in real time, so that the production process can maintain finished good inventory and storage of raw material. This is achieved through integrated information system. Integrated information system helps in receiving real time demand information that can used to develop and modify production plans and schedules. This information integrated further down the supply chain so that system can be supported by raw material and component required.

The coordination of supply with multiple distribution channels requires timely and accurate information flow about demand, inventory, storage capacity, transportation etc.

Build-to-order: In this model the company does assembly of the component to produce finished goods immediately upon the receipt of the order. For efficient functioning of this model it requires careful management of component inventories, delivery of needed supplies with supply chain. To serve effectively with this model company need to use common components in several products at several places. This model supports the concept of mass customization that is each customer is receiving the customized products.

Continuous replenishing model: In this model company works closely with suppliers and intermediaries to constantly replenish inventory. If replenishment of shipment involves many shipments then it may increase the cost causing supply chain to collapse. Therefore tight integration is required between order fulfilment and production process which requires real time demand changes. This type of supply chain model is useful for the products with stable demands for example distribution of prescription medicine.

Channel Assembly Model: this type of supply chain model is a modification of build-to-order model. In this model the parts of the product are gathered and assembled at 3rd party logistics facility or the collection of finished components for delivery to the customer, for example assembled computer; companies which dealt with the assembled computers used this type of model.

IMPORTANCE OF SUPPLY CHAIN

Supply chain is the backbone of an organization which manages the critical issues such as rapid growth, global expansion and environmental concerns etc. Some of the importance of supply chain is as follows;

1. It helps to reduce inventory cost
2. Provide better medium for information sharing between partners.
3. Boost customer service and improve customer satisfaction
4. Maintain better trust between partners
5. Provide efficient manufacturing strategy
6. Improve process integration
7. Improves bottom line (by decreasing the use of fixed assets in the supply chain)
8. Increase cash flow
9. Reduce operating cost

10. Improves financial position by decreasing fixed assets and increase cash flow and profit leverages
11. Improve quality and give higher profit margin
12. Protect cultural freedom and development

LOGISTICS

Any organization has to improve and develop its supply chain and logistics processes to be successful and gain competitive advantage in the market. Measuring delivery performance is very important for a company to make its logistics system very effective.

Logistics is a key component of the modern economy. Logistics is concerned with the organization, movement, and storage of material and people. It deals with the planning and control of the flow of materials and related information in organizations.

The aim of logistics is to plan and coordinate all those activities necessary to achieve desired levels of delivered service and quality at lowest possible cost. Logistics must therefore be seen as the link between the marketplace and the operating activity of the business.

The role of logistics is changing from one of warehousing and transportation to one of providing an integrated set of services that delivers the right products, in the right quantities, in the right quality, at the right time all for the right cost. Basically logistics has been divided in to two broad categories:

Inbound logistics is one of the primary processes of logistics concerned with in movement of purchased raw material from suppliers to company.

Outbound logistics is the movement of finished products from manufacturing unit (factory) to the end user (customer).

Activities

Activity 1: Visit to a warehouse

Material required: 1. Note Book 2. Pen/Pencil 3. Check list

Step by Step Procedure:

1. Reach to the retail store along-with peers.
2. Meet the inventory executives and others and greet them.
3. Take a round of the retail store and enquire to retail store manager about the followings:
 - Suppliers of various products and their locations

- Storage for those products
 - Local distributors of these products and their locations.
 - Potential customers.
 - Transportation for those products.
4. Discuss the executive (s) about supply chain practices.
 5. Show your notes to the executive and confirm.
 6. Prepare a report discuss with friends and show it to the teacher
 7. Present your report in the class.

Activity 2: Visit to a post office

Material Required: 1. Note Book 2. Pen/Pencil 3. Check list

Step by step procedure:

1. Reach to the Post office along-with peers.
2. Meet the Post master and others employees of post office.
3. Take a round of the post office and enquire to post master about the followings:
 - Point of collection of letters and their locations.
 - Storage for those letters.
 - Methods and criterion letter sorting.
 - Movement of letters (transport) of these letters and their destinations.
 - Distribution of letters to recipients.
 - Any problem during the operations of post office.
4. Discuss with the employees of post office (s) about working and problems.
5. Show your notes to the post master and confirm.
6. Prepare a report discuss with friends and show the teacher and present in the classroom.

Check Your Progress

A. FILL IN THE BLANKS

1. Supply chain consist of _____ : Suppliers, manufacturer, distributors _____ customers
2. There are two types of logistics, first is inbound and second is _____ .

3. Warehouse is part of _____ .
4. Decision in regard to Inventory and warehousing facilities is a part of _____ decision.
5. Production and distribution schedules are the part of _____ decisions.
6. Flow of information in the supply chain is _____.
7. Logistics is the link between the _____ and the operating activity of the business.

B. MULTIPLE CHOICE QUESTIONS

1. Which of the following is true for supply chain management?
 - a. The physical material moves in the direction of the end of chain
 - b. Flow of cash backwards through the chain
 - c. Exchange of information moves in both the direction
 - d. All of the above
2. The sequence of a typical manufacturing supply chain is
 - a. Storage–Supplier–manufacturing–storage–distributor–retailer–customer
 - b. Supplier–Storage–manufacturing–storage–distributor–retailer–customer
 - c. Supplier–Storage–manufacturing– distributor–storage–retailer–customer
 - d. Supplier–Storage–manufacturing–storage– retailer–distributor–customer
3. The purpose of supply chain management is
 - a. provide customer satisfaction
 - b. improve quality of a product
 - c. integrating supply and demand management
 - d. increase production
4. Logistics is the part of a supply chain involved with the forward and reverse flow of
 - a. goods
 - b. services
 - c. cash
 - d. all of the above

5. The major decision areas in supply chain management are
- location, production, distribution, inventory
 - planning, production, distribution, inventory
 - location, production, scheduling, inventory
 - location, production, distribution, marketing

C. SHORT ANSWER QUESTIONS:

- Define supply chain.
- Explain various types' of supply chain.
- What is flow of supply chain?
- Discuss the importance of supply chain?

D. CHECK YOUR PERFORMANCE

- Draw a diagram of material flow and financial flow.
- List out the functions of supply chain management.
- Demonstrate the importance of supply chain.

Session 2: Concepts of Logistics

LOGISTICS

Logistics is the process of planning, implementing, and controlling procedures for the efficient and effective transportation and storage of goods, including services and related information, from the point of origin to the point of consumption. The goal of logistics is to successfully meet customer requirements. This definition includes inbound, outbound, internal and external movements.

INTERNATIONAL LOGISTICS

"International logistics also known as Global Logistics. It focuses on how to manage and control overseas activities effectively as a single business unit. Therefore, companies should try to harness the value of overseas product, services, marketing, R&D and turn them into competitive advantage"

SUB SECTORS IN LOGISTICS

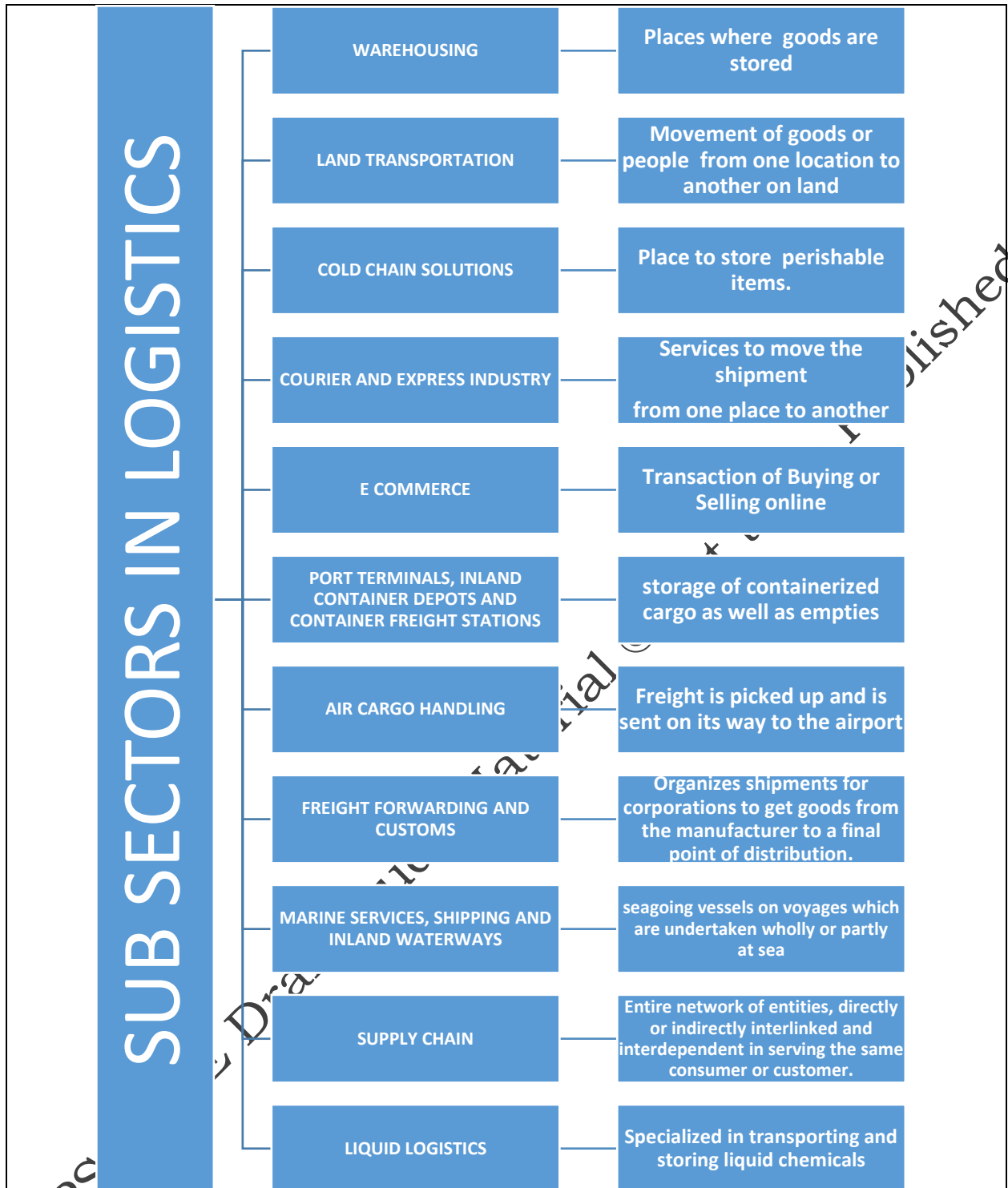


Figure 1.4: Sub Sectors in Logistics

EXPLANATION OF SUB SECTORS IN LOGISTICS

1. Warehousing - storage and packaging (including tertiary packaging)

Warehousing is the act of storing goods that will be sold or distributed later. While a small, home-based business might be warehousing products in a spare

room, basement or garage, larger businesses typically own or rent space in a building that is specifically designed for storage.



Picture 1.1: Warehousing - Storage and Packaging

2. Land transportation (including commercial vehicle drivers for cargo)

Land transport or land transportation, also referred to as ground transport or ground transportation, is the transport or movement of people, animals, and goods from one location to another on land, usually by rail or road. The transportation subsector deals with consolidation of cargo, transportation and coordination of the transport network. Given the shortage of Commercial Vehicle Drivers especially in the Heavy Vehicle segment



Picture 1.2: Vehicles used in Land transportation

3. Cold chain solutions

A cold chain or cool chain is a temperature-controlled supply chain. An unbroken cold chain is an uninterrupted series of refrigerated production, storage and distribution activities, along with associated equipment and logistics, which maintain a desired low-temperature range.



Picture 1.3: Cold Storage and Cold Chain Solution

4. Courier and express industry

Couriers are distinguished from ordinary mail services by features such as speed, security, tracking, signature, specialization and individualization of express services, and swift delivery times, which are optional for most everyday mail services. As a premium service, couriers are usually more expensive than standard mail services, and their use is normally limited to packages where one or more of these features are considered important enough to warrant the cost.

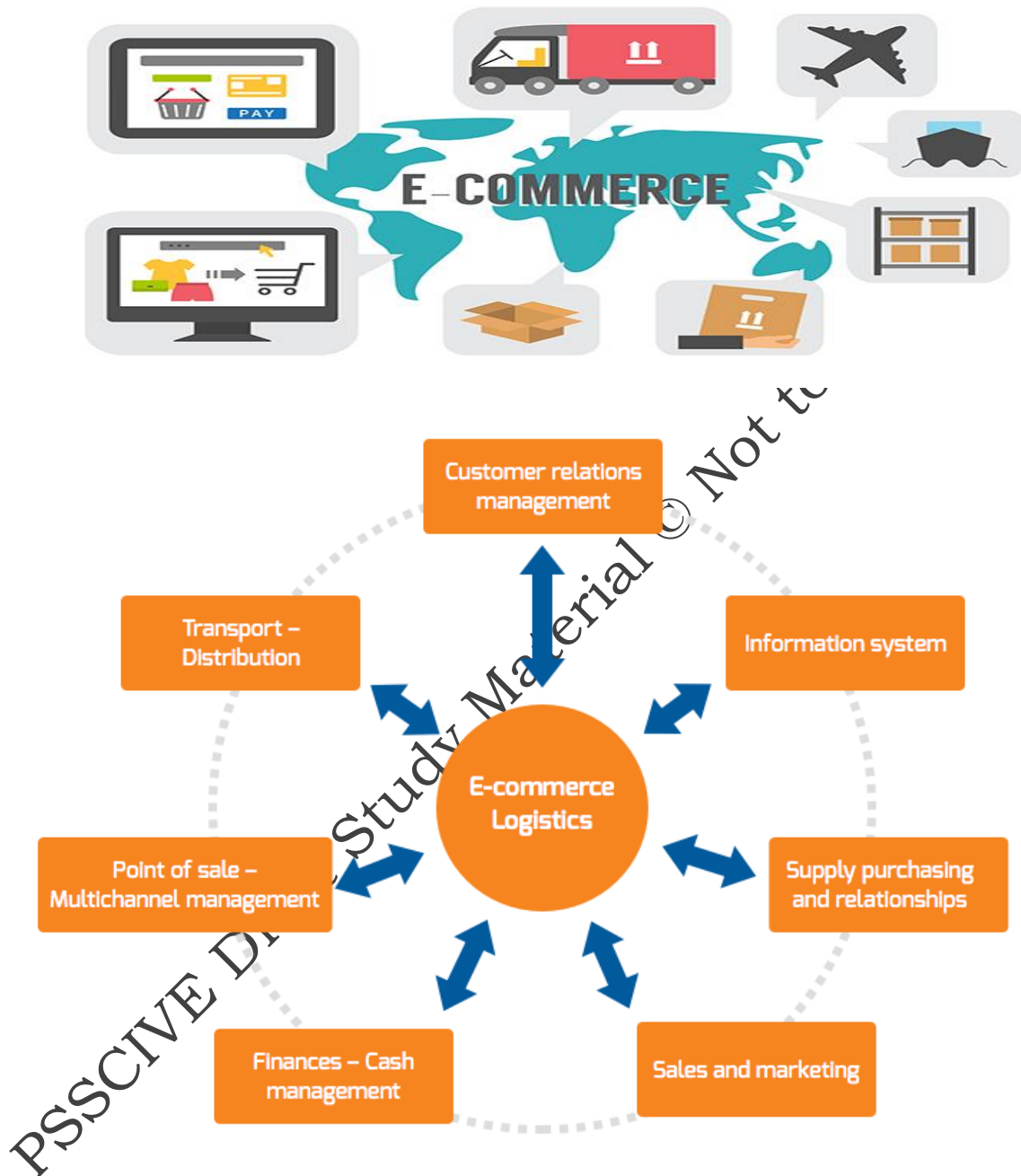


Picture 1.4: Courier Services

5. E commerce (e – logistics)

The E-Commerce is flourishing as a result of increasing internet and mobile penetration, growing acceptability of online payments and favourable demographics. E- Logistics is a dynamic set of communication computing

and collaborative technologies that transform key logistical process to be a customer centric by sharing data, knowledge and information with supply chain partners. Its main objective is to deliver the right products in right quantities at right place and time to right customer.



Picture 1.5: E - Commerce and E - Logistics

6. Port terminals, inland container depots and container freight stations

A port is a location on a coast or shore containing one or more harbours where ships can dock and transfer people or cargo to or from

land. A port terminal is a place alongside navigable water with facilities for the loading and unloading of ships.



Picture 1.6(a): Port Terminals

Inland Container Depots, otherwise known as ICDs, are dry ports equipped for handling and temporary storage of containerized cargo as well as empties. This means that hinterland customers can receive port services more conveniently closer to their premises.



Picture 1.6(b): Inland Containers Depot

Container Freight Station, A facility where freight shipments are consolidated or de-consolidated and staged between transport legs. A CFS is typically located in proximity to an ocean, port, or airport, where cargo containers are transported to and from.



Picture 1.6(c): Container Freight Station

7. Air cargo handling (other than tarmac side operations)

Air cargo is any property carried or to be carried in an aircraft. Air cargo comprises air freight, air express and airmail. Air cargo handlers require little formal education. Learn about the training, job duties and requirements for air cargo handling positions to see if this is the right career for you. Air cargo handlers work at airports loading and unloading baggage.



Picture 1.7: Air Cargo and its handling

8. Freight forwarding and customs

Freight forwarding is the coordination and shipment of goods from one place to another via a single or multiple carrier via air, marine, rail or highway.

Customs Departments are the government designated authority to implement the policies related to import and export, collect customs duties and facilitate movement of people, goods, and cargo into and out of the country.



Picture 1.8: Coordination of freights

9. Marine services, shipping and inland waterways

Marine services are port-related activities conducted to ensure the safe and expeditious flow of vessel traffic in port approaches and harbours and a safe stay at berth when moored or at anchor.



Picture 1.9: Marine Services at sea port

The term 'shipping' has evolved from its original relationship to ships and seaborne trade, to encompass any mode of transport that moves goods between two points. The implication of the extended meaning of 'shipping' is that the shipping industry has become more complex, as well as more dynamic.



Picture 1.10: Shipping the Goods

Inland waterways are a network in the form of rivers, canals, backwaters and creeks that can be used for transportation in place of or in addition to roads and rails.

10. Supply chain

A supply chain is the network of all the individuals, organizations, resources, activities and technology involved in the creation and sale of a product, from the delivery of source materials from the supplier to the manufacturer, through to its eventual delivery to the end user. The supply chain segment involved with getting the finished product from the manufacturer to the consumer is known as the distribution channel.



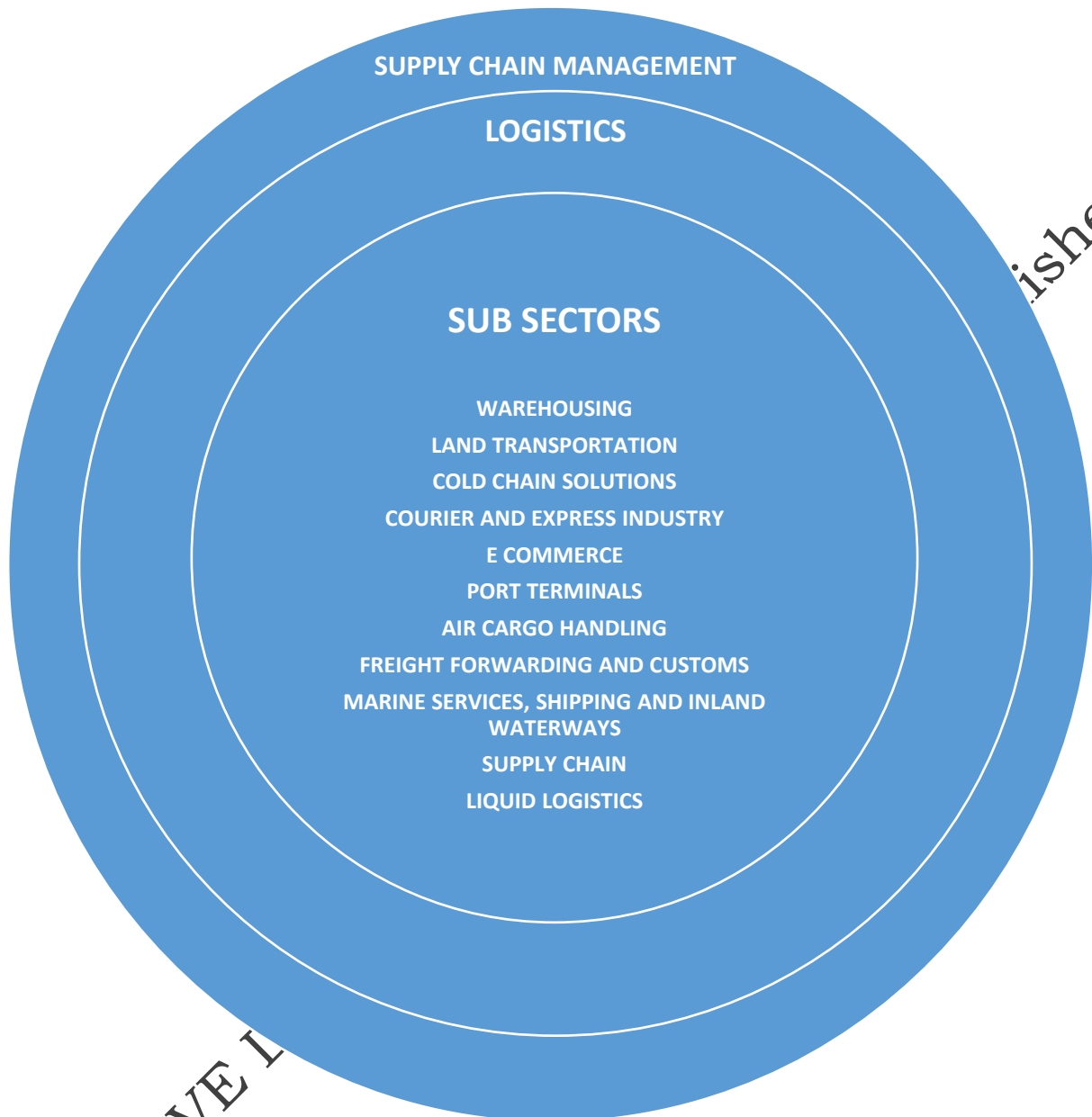
Picture 1.11: Supply Chain Process

11. Liquid logistics

Liquid logistics is a specialized material-handling and transportation discipline that is used when moving liquid products through a supply chain.



Picture 1.12: Liquid Logistics Vessels

CORRELATION OF SUB SECTORS IN LOGISTICS**Figure 1.5: Correlation of subsectors**

The subsectors of logistics are interrelated to each other. Each subsector is directly or indirectly interdependent. Logistics facilitates the flow of products from point of origin to point of consumption. In the sphere of logistics the above activities are considered as part of the overall logistics process.

LOGISTICS AND WAREHOUSING

Logistic is the process of planning, controlling and implementation of storage goods from the starting points and movement of the final product. Warehousing is a planned space for the handling and storage of goods and material. By storing the goods throughout the year and releasing them as and when they are needed, warehousing creates time utility.

Warehousing is holding inventory in a location. Logistics is the entire process of obtaining material from sources to putting it in the hands of users. Logistics includes transportation, information systems, warehousing and distribution, procurement, finance, performance metrics and so on

The relationship between Warehousing and logistics is conceived as a breakeven point at which goods/services/ideas and persons can be conveyed from the place of production to the society/final consumers/customers; through many means of communication such as the use of mobile phones, the internet, and other communication pipelines. Many modes of transportation are used to move the items: trucks are used as a means of transporting products to a storage warehouse for safety, to avoid theft and exposure in certain climates.

Warehousing is a key component of logistics management and how businesses manage the transportation and storage of their inventories. Warehousing and logistics must be aligned within a firm to have the most efficient effect on overall manufacturing production as well as outbound logistics activities. The collaboration between these two functions must be utilized effectively while also maintaining high levels of synchronization in order to garner the most efficiency and effectiveness within the firm, as well as the supply chain as a whole.

Difference between logistics and warehousing

Warehousing and logistics are two different aspects of similar functions within the supply chain. Warehousing is the safe storage of goods, inventory, information, etc. within a specified area or building. Logistics is the overarching principles and function of: transportation, warehousing, internal movement, of the same goods, inventory, information, etc. to a manufacturing line or back to the firm from the customer (reverse logistics). Warehousing and logistics are a tandem in terms of their operational scope so ensuring these components collaborate in regards to operations is key.

Activities

Activity 1: Draw a chart containing sub sectors of warehousing industry

Material required: Check list, Notepad, pen /pencil, drawing sheet, colour pencils.

Step by step Procedure:

1. Purchase or arrange a drawing sheet
2. Collect the materials required to draw.
3. Draw a chart containing sub sectors of warehousing in a sheet
4. Check the characteristics from the textbook and teacher taught in class
5. Ensure about your work completion
6. Discuss with the classmates in front of your teacher.
7. Write the conclusion of it.

Activity 2: Draw a chart to correlate the logistics with warehousing

Material required: Check list, Notepad, pen /pencil, drawing sheet, colour pencils.

Step by step Procedure:

1. Purchase or arrange a drawing sheet
2. Collect the materials required to draw.
3. Draw a chart containing warehousing and correlate it with logistics industry.
4. Check the characteristics from the textbook and teacher taught in class
5. Ensure about your work completion
6. Discuss with the classmates in front of your teacher.
7. Write the conclusion of it.

Check Your Progress

A. FILL IN THE BLANKS

1. _____ is the act of storing goods.
2. Movement of goods from one place to another is called as _____ transportation.
3. Warehouse is an important activity of _____ function.
4. A _____ cold chain is a temperature controlled supply chain.
5. _____ is a dynamic set of communication computing technologies that transform key logistical process.

6. A _____ is a place alongside navigable water with facilities for loading and unloading of ships.
7. _____ is any property carried or to be carried in an aircraft.
8. _____ are a network in the form of rivers, canals, backwaters and creeks that can be used for transportation in place of or in addition to roads and rails.
9. _____ is a specialized material-handling and transportation discipline that is used when moving liquid products through a supply chain.

B. TRUE OR FALSE

1. Warehouse cannot store goods.
2. Supply chain and logistics are correlated with each other.
3. The term 'shipping' has evolved from its original relationship to ships and seaborne trade, to encompass any mode of transport that moves goods between two points.
4. Marine services are port-related activities
5. Customs Departments are the government designated authority to implement the policies
6. Air cargo is any property carried or to be carried in an aircraft.

C. SHORT ANSWER QUESTIONS

1. What is logistics?
2. Explain briefly about subsectors of logistics?
3. What is difference between land logistics and liquid logistics?
4. What is a marine service?
5. Draw a chart containing supply chain process

D. CHECK YOUR PERFORMANCE

1. Draw a chart containing list of subsectors in logistics.
2. Difference between warehousing and logistics.

Session 3: Introduction to Inventory and Logistics Operations

INVENTORY

The term inventory refers to the goods or materials used by a firm for the purpose of production and sale. It also includes the items, which are used as supportive materials to facilitate production.

TYPES OF INVENTORY

There are three basic types of inventory:

- (a) Raw materials
- (b) Work-in-progress
- (c) Finished goods.

(a) Raw materials:

Raw materials are the items purchased by firms for use in production of finished product.

(b) Work-in-progress: -

Work-in-progress consists of all items currently in the process of production. These are actually partly manufactured products.

(c) Finished goods

Finished goods consist of those items, which have already been produced but not yet sold.

Inventory constitutes one of the important items of current assets, which permits smooth operation of production (manufacturing) and sale process of a firm. Inventory management is concerned with maintaining optimum investment in inventory and applying effective control system so as to minimize the total inventory cost.



Picture 1.2: Inventory in warehouse

IMPORTANCE OF INVENTORY MANAGEMENT

Inventory management is important because of following reasons:-

- The firm has to maintain adequate inventory for smooth production and selling activities.
- It has to minimize the investment in inventory to enhance firm's profitability.
- Inventory management helps in reducing total cost of inventory.
- Inventory management avoids the stock-out problem.

It should just be optimum. Maintaining optimum level of inventory is the main aim of inventory management. Excessive investment in inventory results into more cost of fund being tied up so that it reduces the profitability. Inventories may be misused, lost, damaged and hold costs in terms of large space and others.

At the same time, insufficient investment in Inventory creates stock-out problems, interruption in production and selling operation. Therefore, the firm may lose the customers as they shift to the competitors. Inventory management, should always try to put neither excessive nor inadequate investment in inventory.

TYPES OF INVENTORY ANALYSIS

- (a) ABC Analysis
- (b) FSN Analysis
- (c) VED Analysis
- (d) HML Analysis
- (e) SDE Analysis

ABC Analysis:

This analysis categorizes items based on their annual consumption value, sometimes Inventory Managers can use Pareto's Principle for classification.

Pareto's Principle classifies the important items in a certain group that usually constitute a small portion of the total items in the group. The majority of the items, as a whole, will seem to be of minor significance.

Here is how ABC Analysis looks like:

- CLASS A: 10% of total inventories contributing towards 70% of total consumption value.
- CLASS B: 20% of total inventories, which account for about 20% of total consumption value.
- CLASS C: 70% of total inventories, which account for only 10% of total consumption value.

FSN Analysis:

This analysis classifies inventory based on quantity, rate of consumption and frequency of issues and uses. Here is the basic depiction of FSN Analysis:

F stands for Fast moving, S for Slow moving and N for Non-moving items.

- Fast Moving (F) = Items that are frequently issued/used
- Slow Moving (S) = Items that are issued/used less for certain period of time.
- Non-Moving (N) = Items that are not issued/used for more than certain duration.

VED Analysis:

This is an analysis whose classification is dependent on the user's experience and perception. This analysis classifies inventory according to the relative importance of certain items to other items, like in spare parts.

In VED Analysis, the items are classified into three categories which are:

- Vital – inventory that consistently needs to be kept in stock.
- Essential – keeping a minimum stock of this inventory is enough.
- Desirable – operations can run with or without this, optional.

HML Analysis:

HML Analysis classifies inventory based on how much a product costs/its unit price. The classification is as follows.

- High Cost (H) = Item with a high unit value.
- Medium Cost (M) = Item with a medium unit value.
- Low Cost (L) = Item with a low unit value.

SDE Analysis:

This analysis classifies inventory based on how freely available an item or scarce an item is, or the length of its lead time. This is how the inventory is classified:

- Scarce (S) = Items which are imported and require longer lead time.
- Difficult (D) = Items which require more than a fortnight to be available, but less than 6 months' lead time.
- Easily available (E) = Items which are easily available

LOGISTICS OPERATIONS

Logistics is part of the supply chain process that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods,

services, and related information between the point of origin and the point of consumption in order to meet customer's requirements.

Logistics describes the entire process of materials and products moving into, through, and out of firm. Inbound logistics covers the movement of material received from suppliers. Materials management describes the movement of materials and components within a firm. Physical distribution refers to the movement of goods outward from the end of the assembly line to the customer. Finally, supply-chain management is somewhat larger than logistics, and it links logistics more directly with the user's total communications network and with the firm's engineering staff.

- **Inbound logistics** is one of the primary processes of logistics concerned with in movement of purchased raw material from suppliers to company.
- **Outbound logistics** is the movement of finished products from manufacturing unit (factory) to the end user (customer).

CONCEPT OF WARE HOUSE

Warehousing is the storage of goods until they are needed. The aim of warehouse operations is to satisfy customer's needs and requirements through utilisation of space, equipment, and labour effectively. The goods must be accessible and protected.

Warehousing comprises a number of actions related to temporary receipt, storage, picking, transport, maintenance, monitoring and shipment of material goods(inventories)

Plan is essential for warehouse operations. The larger the operation, the more important plan becomes. The plan should be divided into segments that document the procedures, rules, and workflow for each function in the warehouse. It should document all space, equipment, and labor resources, and how each is being utilized by the various functions.

To develop plan, follow these basic steps are required:-

- Define the function you want or need to accomplish (set goals.)
- Determine how the function will be accomplished.
- Determine the equipment needed to accomplish the function.
- Define the function's space requirements.

The basic operations of warehousing include four major operations: -

- i. Receipt
- ii. Storage
- iii. Picking.
- iv. Shipment of stored inventories

The main tasks performed as part of the Receipt include unloading, identification, sorting, inspection in terms of quantity and quality, preparing goods for storage and moving the delivery to storage

The storage covers collecting goods from the reception zone, putting them away in a storage zone, storage of goods, interim inspection and releasing the goods to the picking zone or for the shipment.

There are various functions of ware house, functions of warehousing include

- Transportation consolidation
- Product mixing
- Docking
- Service
- Protection against contingencies

IMPORTANCE OF WARE HOUSE

Ware house is very important for a firm because of following reasons: -

- **Inventory Control-** A Warehouse decreasing inventory levels, improving order fulfilment, and reducing order cycle time. Warehouse
- **Customer Service and Tracking-** warehouse is an important part of customers' buying experience. Making sure products ordered are in stock and customers get.
- **Company Productivity:** -Warehouse increases productivity and efficiency, of company and consistency, and quality control of inventory.
- **Return on Investment:** Warehouse improve sales and increase profits by more sales.

TYPE OF WAREHOUSING

- Public Warehousing
- Private Warehousing
- Contract Warehousing
- Multi-client Warehousing

OBJECTIVES OF EFFICIENT WAREHOUSE OPERATIONS

- Provide timely customer service.
- Keep track of items so they can be found readily & correctly.
- Minimize the total physical effort & thus the cost of moving goods into & out of storage.
- Provide communication links with customers

Activities

Activity 1: Visit to a ware house of a any store.

Material Required: 1. Note Book, Pen/Pencil, Check list

(The teacher has to fix a visit of the class to a warehouse/ store of the locality to have exposure of Inventory management system.

Procedure:

1. Visit to warehouse along-with the class.
2. Meet the inventory executives.
3. Take a round of the warehouse and note various types of inventory and level (quantity) of inventory
4. Prepare notes.
5. Show your notes to the executive and confirm.
6. Prepare a report discuss with friends and show the teacher

Activity 2: understanding of terminology

Materials Required: worksheet provided by teacher, pen

Step by Step Procedure:

1. Take a sheet
2. Write the full forms of given abbreviations.

ABC

FSN

VED

HML

SDE

Activity 3: Visit to a warehouse for identification of common cause for errors and suggest possible solution

Material Required: 1. Note Book, Pen/Pencil, Check list

(The teacher will arrange a visit of the class to a warehouse/ store of the locality to have exposure of warehousing.)

Step by step procedure:

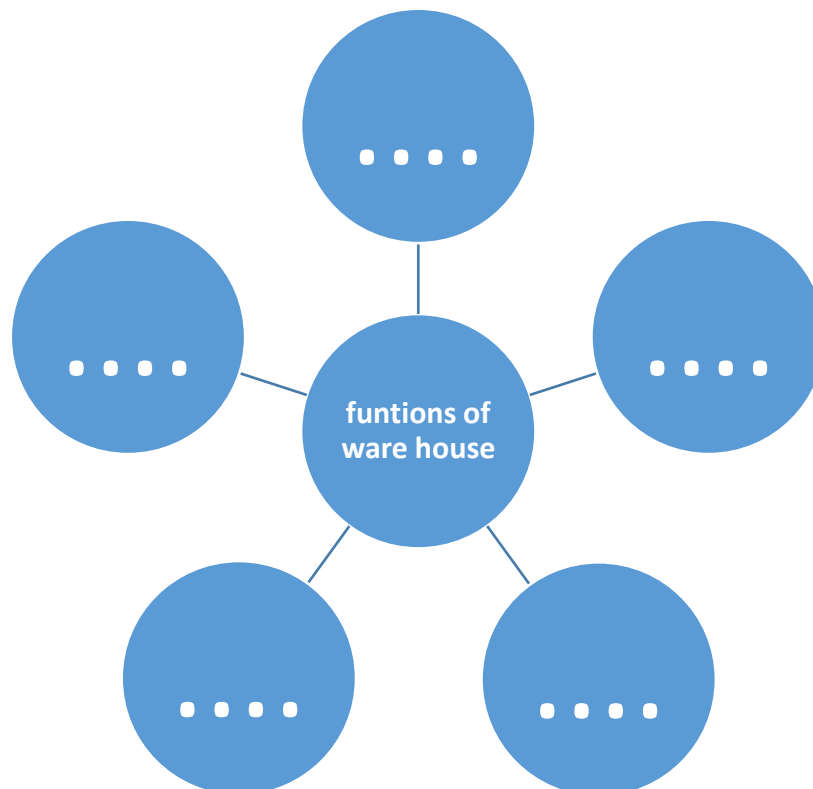
1. Visit the warehouse along-with the class.
2. Meet the ware house manager or executives of ware house.
3. Request them to explain the working of ware house and note down main points.
4. Take a round of the warehouse, view the major activities, their performing in the store/ warehouse and note major issues.
5. List the Problems of ware house.
6. Prepare a report on it discuss solutions with the ware house experts and also with your friends

Activity 4:

Materials Required: worksheet provided by teacher, pen

Step by Step Procedure:

1. Take a sheet
2. Fill the blank space in the figure given below for functions of ware house :



Check Your Progress

A. FILL IN THE BLANKS

1. Finished goods consist of those items, which have already been _____ but not yet sold.

2. Work-in-progress consists of all items currently in the process of _____ These are actually partly manufactured products.
3. Inventory management is to minimize _____
4. Raw materials are the items _____ by firms.
5. In case of SDE process, D stand for _____
6. _____ logistics concerned with in movement of purchased raw material from suppliers to company.
7. _____ is the movement of finished products from manufacturing unit (factory) to the end user.
8. Ware house can improve the _____
9. Ware house can increase _____
10. Ware house cannot change _____

B. TRUE AND FALSE

1. Because inventory is stored in warehouses, the physical management of inventory and warehousing are connected.
2. In a factory, "stores" perform the same function as warehouses and contain raw materials, work-in-process inventory, finished goods, supplies, and repair parts.
3. The cost of operating a warehouse can be broken down into capital and operating costs.
4. Usually the largest capital cost in warehouse management is for labor and equipment.

C. MULTIPLE CHOICE QUESTIONS

1. Which of the following is not an inventory?
 - a. Machines
 - b. Raw material
 - c. Finished products
 - d. Consumable tools
2. The following classes of costs are usually involved in inventory decisions except
 - a. Cost of ordering
 - b. Carrying cost
 - c. Cost of shortages
 - d. Machining cost
3. 'Buffer stock' is the level of stock
 - a. Half of the actual stock

- b. At which the ordering process should start
 - c. Minimum stock level below which actual stock should not fall
 - d. Maximum stock in inventory
- 4 . The time period between placing an order its receipt in stock is known as
- a. Lead time
 - b. Carrying time
 - c. Shortage time
 - d. Over time
- 5 . VED analysis used for
- a. User experience and perception.
 - b. Inventory and time.
 - c. Classification of Inventory.
 - d. Level of Inventory

C. SHORT ANSWER QUESTIONS

1. What is Inventory?
2. Explain various types of Inventory analysis Methods.
3. Write use of VED analysis.
4. What HML analysis of Inventory.
5. What is importance of inventory management?
6. What is ware house?
7. Wrote various types of Ware house.
8. Explain the importance of ware house?
9. What is Multi -client ware house?
10. Define Out bound logistics?

D. CHECK YOUR PERFORMANCE

1. Draw a chart on types of inventory analysis.
2. Identify the various types of the inventory.

Session 4: Basics of Documentation Assistant

MEANING OF ROAD TRANSPORT

Road transport (Fig2) means movement of goods and personnel from one place to the other places by use of roads over a time and space. The movement should be safe, efficient, reliable, and sustainable.

Sometimes road transport is the only way for carrying goods and people to and from rural areas which are not catered to by rail, water or air transport.



Picture 1.2: Road Transport

Source:

<https://www.google.co.in/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwiHgar81dvWAhUKtY8KHUcgDxMQjRwIBw&url=http%3A%2F%2Fwww.autocarpro.in%2Fnews-national%2Fsiam-talks-notifying-fuel-efficiency-norms-trucks-buses-20256&psig=AOvVaw3jxArSaVgNvKG4ZqMqmzUs&ust=1507368099071520>

Road Transport: Road is an identified route between two places, which helps in making smooth journey between places. Journey can be performed by different modes motorized and non-motorized carriages. Carriage like bus, trucks, car, bike or by bare foot. Road transport means transportation of goods and personnel from one place to the other on roads. Transportation can be performed by different modes motorized and non-motorized carriages

Elements of Road Transport: Various elements of road transport are-

- I. **Infrastructure:** Infrastructure is a basic and most important element of transportation. In case of road transport it plays crucial role because

various factors like availability of roads, its condition and obstacles and interference during travel affect the transportation infrastructure. Good condition and wider availability of roads make road transport easier and convenient to transporter as well as business parties. Through road transport goods can be transported at door step with minimum human intervention with goods.

II. **Vehicles:** Infrastructure is the fix installation where as vehicles are the movable devices in transport which help to move goods and materials from one place to another. As per transport need these vehicles may be of different types. It may be small goods career to heavy duty trucks as goods career. Operating condition of vehicle is crucial for the road transportation.

III. **Operation:** To make transport effective and reliable a good monitoring system helps in smooth operation of transport. In road transport, operation include from order picking to safe and secure delivery of goods within time at decided destination. Operation of transportation can be done with help of modern electronic devices like GPS and handling with trained manpower.

Functions of road transportation: Various functions of road transportation are as follows-

I. **Product Movement:** The basic function of road transportation is to move the product from one place to another. During transportation product movement function of loading unloading and transportation of goods is performed. In this process lots of time is consumed and goods are locked in the process of transit. All these activities bear financial cost like administrative, salary and maintenance cost etc to the company.

II. **Product Storage:** In transportation products are temporary stored in stationery vehicle. It is an expensive option but done when the cost of unloading and reloading the product in the Warehouse is more expensive. In case of limited storage space in a warehouse this option can be chosen. Sometimes, temporary storage is used due to diversion of routes and product requirement places.

Advantages: Road transport has several advantages -

1. **Door step delivery:** With wider range of road network it is easier to make product available at desired places.

2. **Flexibility:** Road transports have flexibility in operations. Product can be moved through different routes and places if any changes occur due to any reason.
3. **Economical over short distances:** Since other modes of transportation like rail and air cannot deliver short distance consignments. Therefore road transport helps in such places delivery.
4. **Limited Capital Expenditure:** road transportation can start with smaller carriage also which require less capital and helps in financial independency.

Disadvantages: Road transportation has several advantages but there are some limitations also which are as follows-

1. **Unsuitable for Long Distances:** In shorter distance road transport is convenient but for longer distance it is not as suitable as other mode like rail or air transport.
2. **Irregular and Unreliable:** road transportation is affected by various factors; some are manmade situation like strikes, and violence etc. whereas natural calamities also affect the road transport.
3. **No Uniformity in Rates:** due to large numbers of transport operators there are differences in rates. Operators prefer big long duration consignment rather than small one.
4. **Limited Speed:** Time in transportation is affected by condition of roads and making formalities with authorities at various places and it results to limited speed. These activities consume time and delivery gets affected.

Impact of road transport: Road transports have manifold effect on business, society and environment. These impacts are positive as well negative which follows-are

1. **Business Impact-**Road transportation has deep impact on business. These impacts are related with operations, investment and opportunities for business.
2. **Ease of business operation:** availability of road network and wider reach to places make the business easier and smoother.
3. **Quick and on-time delivery:** due to availability of road goods can be delivering fast and in safe manner to destination.
4. **Lower investment:** Road transport business can be started with small investment with smaller number of freight careers.
5. **Bargaining power:** Large numbers of transport operators give opportunity to business men to bargain on freight rates and time of delivery.

1. **Social Impact:** Transport has positive impact on society by breaking several tradition prejudice norms and rituals. They are-
 - i. **Social equity:** transportation gives opportunity to the people to move from one place to another and see and observe culture of different places. This helps in changing mindset of people and increase social equity.
 - ii. **Livelihood opportunity:** Road transportation gives livelihood opportunity to large number of people through road construction and other related activities.
 - iii. **Poverty Reduction:** By getting livelihood opportunity people get employment opportunities in road construction, maintenance, work in transport houses as employee, driver and supporting staff, these employment opportunities help in poverty reduction.
 - iv. **Social development:** Road transport gives opportunities of social equity, livelihood and opportunity to employment. All these activities helps in social development.
 - v. **Economic growth:** Employment has direct impact on earning and employment growth. Road transport helps in employment and improved earnings which results to economic growth of the region.
2. **Environmental Impact:** Road transport has several impact on environment which are as follows-
 - i. **Pollution:** The biggest impact of road transport is increased pollution in the form of air and noise pollution by increase in number of transport vehicles.
 - ii. **Eco-System degradation:** Road construction needs large area of land. To acquire land deforestation is done which affects the eco-system by effecting flora and fauna in the area.
 - iii. **Habitat fragmentation:** Eco-system degradation by road transport de-fragment nature by constructing roads in forest and in mountains. The wild life gets defragmented due to roads and human interventions have adverse effect on wild life in form of accidents and pollutions in these areas.
 - iv. **Climate change:** Due to heavy carbon emission from transport vehicle, environment gets affected, resulting in the form of drought, floods and seasonal variations.

WAREHOUSE OPERATIONS

Warehouse operations involve a series of operations performed in a logical sequence. Aim of warehouse operation is to use the space, equipment and labour effectively and satisfy the needs of the customers. Tools such as Warehouse management systems and Warehouse control systems are used to manage warehouse operations effectively.

The warehouse operations can be given as follows:

1. Input – Goods enter into the warehouse.
2. Receiving- Goods are received and recorded in the warehouse.
3. Put away- Goods are identified and moved to the storage location.
4. Storage- goods are stocked at an appropriate location based on their popularity, size etc.
5. Order picking- When order is received, goods are picked up from the storage location as per the purchase order.
6. Shipping preparation- Selected goods are packed and labelled for further shipping.
7. Shipping- Loading on the selected carrier and get dispatch documents.
8. Output- Goods finally leave the warehouse premises.
9. Warehouse operations start with input of material and ends when the material leaves the premise. Refer to figure 1.

FUNCTIONS OF WAREHOUSING

In narrow terms, warehouses are set up only as store houses. But, there are various other activities that take place in warehouse such as security, processing, value addition like packaging etc. so, in broad terms these functions are also included in warehousing. It is very important to understand the various functions performed in the warehouse.

Following are the three primary functions performed in a warehouse.

Storage Function	Movement Function	Information Management
Storing products in the warehouse Receiving Put-away Order picking Shipping	Receipt of products from manufacturer plant Transfer into the warehouse Placement at designated place Regrouping products Transferring on transport vehicle	Record keeping Documentation Use of Information Technology tools and application software for information management

The secondary functions (figure 2) of warehouse are as follows:

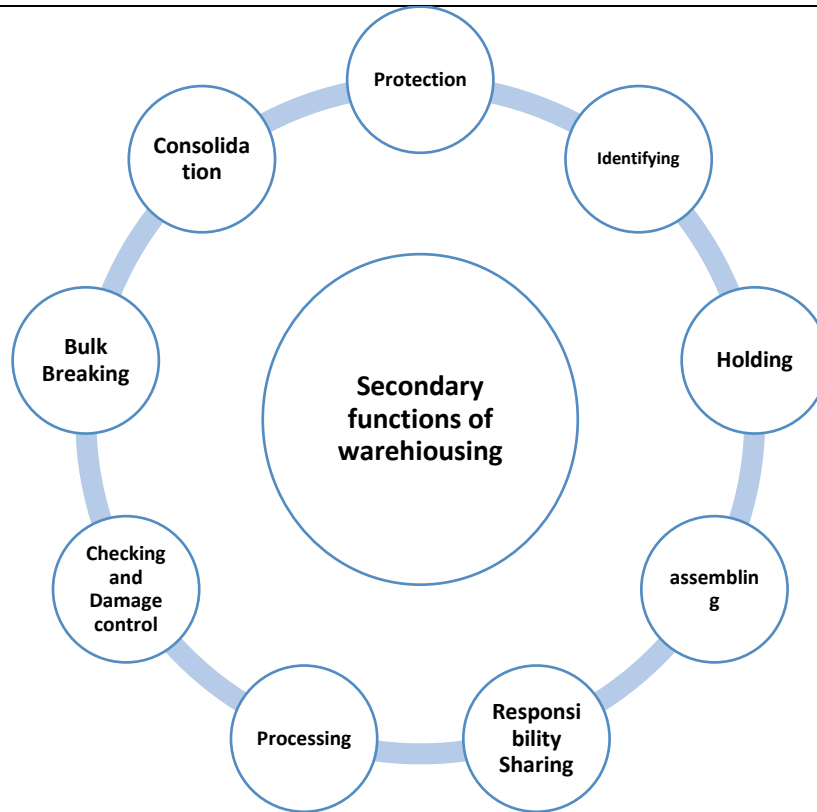


Figure:1.1: secondary functions of warehouse

1. Protection of goods- provides protection to goods against loss and damage arising due to theft, fire or mishandling.
2. Responsibility sharing – the responsibility of goods (damage and security of goods) is taken up by the warehouse, once the goods enter into the premises.
3. Processing- warehouse also provides processing option to the manufacturers. Certain goods have to be worked upon before final consumption such as Paddy is polished, processed foods are labelled etc.
4. Checking and damage control- many times goods are checked for damages or maintenance in warehouse. Preventive and corrective measures are also implemented accordingly on the products. Example – Anti-termite treatment on wooden products, Pest control treatment on ago-based products, anti-rust coating on iron/metallic
5. Breaking the Bulk-goods are generally received in bulk inside a warehouse. These are distributed in small batches as and when required by the distributor. This breaking the bulk lot in to small batches is termed as breaking the bulk.
6. Consolidation- small lots of goods are combined to form single big lot. This process is called as consolidation. Warehouses often act as a

consolidation point where supplies from various suppliers are collected and combined into single lot for further transportation to a single buyer.

Functions of the warehouse can be summarized as follows:

1. Receiving goods from upstream suppliers.
2. Identifying the goods, matching them to orders, and finding their intended use.
3. Unloading materials from delivery vehicle.
4. Doing necessary checks on quantity, quality and condition.
5. Labelling materials so that they can be identified easily. Usually this can be done through bar codes.
6. Sorting the goods as needed
7. Moving goods to bulk storage area.
8. Holding them in stock until needed
9. When necessary moving goods from bulk storage area to a smaller picking store.
10. Picking materials from this store to meet orders.
11. Moving the materials to a marshalling area.
12. Assembling materials into orders.
13. Packing and packaging as necessary
14. Loading delivery vehicles and despatching orders.
15. Controlling all communication and related systems such as inventory control and finance.
16. Consolidation activity and break-bulk activities also form a part of warehousing activities apart from regular activities.

As warehousing is a system, no operations can be performed individually in isolation. All the functions have to go hand in hand so as to ensure efficient completion of the warehousing process. The overall objective of efficient storage and accruing customer satisfaction can be achieved only when all the functions are performed in order and to the fulfilment of their objectives.

ACTIVITY

Activity 1: Chart Preparation

Title: Chart Preparation on elements of road transport.

Material Required: Chart Paper, writing pad, pen/pencil, old newspaper and magazines, glue.

Step1: Students will make groups of 5 members in each.

Step2: Each Group will be assigned different task related with road transport element.

Step3: Students will make chart with help of pictures and photographs in available news paper and magazines.

Step4: Students can also draw pictures without taking pictures from news paper and magazines.

Step5: Prepared chart will be displayed in classroom.

Step6: The entire student will look and observe chart of other group and write comments.

Step7: Students will answer queries of other group if some.

Step8: Teacher will facilitate in the above process and conclude the learning.

Activity 2: Chart Preparation

Title: Chart Preparation on functions of road transport.

Material Required: Chart Paper, writing pad, pen/pencil, old newspaper and magazines, glue.

Step1: Students will be instructed to prepare a chart showing functions of road transport.

Step2: Each student will prepare a chart showing functions of road transport.

Step3: Student will display their chart in the class room.

Step4: students can draw pictures also without taking help from newspaper and magazines.

Step5: The entire student will carefully observe charts of other students and write the comments.

Step7: Students will answer queries of others if some.

Step8: Teacher will facilitate in the above process and conclude the learning.

Activity 3: Field Visit

Materials Required: Notebook, Pen Pencil, Questionnaire (if required),

Step by Step Procedure:

Step 1: Make a group of 4-5 students.

Step 2: ask them to visit a warehouse nearby the residence or school

Step 3: Ask to warehouse manager about the types of warehouse

Step 4: Also discuss the functions of the warehouse

Step 5: write down the questions and answers in your notebook.

Step 6: Present the report in the class and discuss the outcome of the visit.

Check Your Progress**A. FILL IN THE BLANKS**

1. The process of storage is termed as _____ and the place where the goods are stored is called as _____.
2. There are _____ warehouses for specialized kind of products.
3. Goods from number of suppliers can be received in one warehouse and can be transported as a single bulk consignment to the buyer. This is called as _____.
4. The time between receipt of order and delivery of order is called as _____.
5. Warehouse is an important activity of _____ function.
6. Process of identifying and moving goods to the storage location is called as _____.
7. _____ is the process of combining the small lots of goods into one single lot.
8. Tools such as warehouse _____ system and warehouse _____ system are used to manage warehouse operations effectively.

B. TRUE OR FALSE

1. Warehouse provides storage solutions for number of clients.
2. Packing is not a function of warehouse.
3. Warehousing is an integral part of logistics.
4. Warehousing works as a system.
5. Effective resource utilization is not an aim of warehousing.

6. Warehouses are only for storage activity.
7. Processing and packaging may also form a part of warehousing activity.
8. Binning activity involves storage and order picking.
9. Road transports have flexibility in operations.
10. On site delivery can be done in road transport.
11. Infrastructure is the movable installation.
12. The basic function of road transportation is to store product at one place.
13. Increase numbers of transporter reduce the bargaining power.
14. Habitat fragmentation is environmental impact of road transport.
15. Air transport is the cheaper mode of transportation.
16. Quick delivery can be done by air transport.

C. MATCH THE COLUMN

i	Land Transport	a	Cargo
ii	Social Impact	b	Pollution and Ecosystem degradation
iii	Water transport	c	Highways
iv	Environmental Impact	d	GPS system
v	Operations	e	Social equity and development

D. SHORT ANSWER QUESTION

1. What is the meaning of road transport?
2. What are the different elements of road transport?
3. How Road transports affect the environment?
4. What are the social impacts of road transport?
5. What is warehousing?
6. Discuss the aim of warehousing.
7. What are the various benefits attached to the warehousing process.
8. Confer about the needs of warehousing.
9. Discuss in brief the functions performed in the warehouse?
10. What is breaking the bulk? Discuss in short
11. What is consolidation process? How does warehousing takes care of this function?

E. CHECK YOUR PERFORMANCE

1. Draw a chart showing responsibilities of documentation assistant.

PSSCIVE Draft Study Material © Not to be Published

MODULE 2	DOCUMENTATION ASSISTANT BASICS
Module Overview	
<p>A warehouse documentation assistant must keep track of goods in and out, storing them in the most efficient and appropriate way, so good mental arithmetic, spatial awareness and judgement are essential. Attention to detail is important when checking for faulty or damaged goods, as is the ability to keep accurate and up-to-date records, for example to ensure stock levels do not fall too low. Admin and paperwork are an integral part of the job, so an organized and conscientious approach is needed. Warehouse staff will usually work as part of a team, so a successful warehouse assistant needs to be a good team player. For warehouse staff whose role involves contact with suppliers and customers, excellent people skills and verbal communication skills - as well as patience - will be needed.</p> <p>Finally, warehouse assistant's work in a potentially hazardous environment so must be responsible and reliable, with a commitment to safe working especially with regard to the correct operation of mechanical handling equipment.</p> <p>On completion of this module, student will be confident in the basics of documentation assistant.</p>	
Learning Outcomes	
<p>After completing this module, you will be able to:</p> <ul style="list-style-type: none"> • Describe duties and responsibilities of documentation assistant; • Prepare for collecting information; • Prepare for processing documentation; • Compile documentation; 	
Module Structure	
Session 1: Duties and Responsibilities of Documentation Assistant	
Session 2: Prepare for Collecting Information	
Session 3: Prepare for Processing Documentation	
Session 4: Compile Documentation	

Session 1: Duties and Responsibilities of Documentation Assistant

ACTIVITIES OF WAREHOUSE

The following activities are performed in the warehouses when the carriage is arrived at the place. Warehouse happens to be a key function for the planning and distribution. The receiving and distributing the material is not the only function of warehousing but for many companies it is a strategic function too.

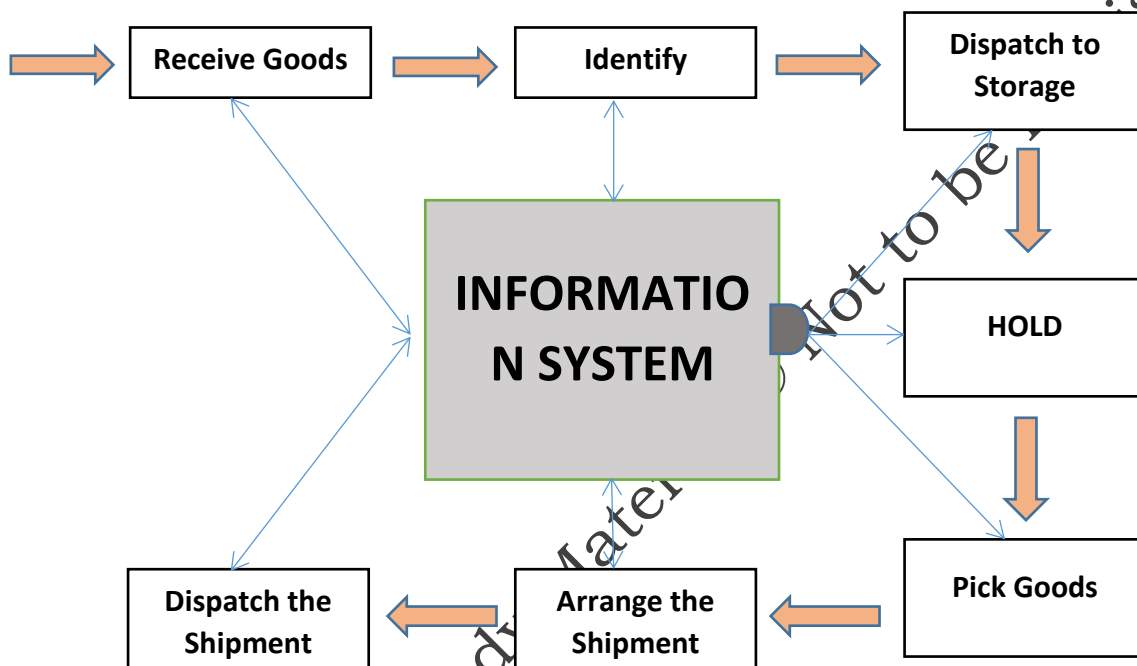


Figure 2.1 Activities of Warehouse

1. **Receive Goods:** Receiving goods is the first stage of warehouse after the arrival of vehicle at place. The following steps have to be followed at first stage to forward it into next step
 - a) Accept goods from outside / factory / manufacturing unit
 - b) Check the Goods v/s Order or Bill
 - c) Check the quantities
 - d) Check for damage
 - e) Damage reports
 - f) Inspect goods if required
2. **Identification of Goods:** The goods are identified on the basis of different factors and will be placed as per their specifications

- a) Stock Keeping Units
- b) Quantity receive is recorded
3. Dispatching Goods to storage by sorting and putting away
4. Holding Goods by keeping and preserving if required
5. Picking Goods
6. Arrange the shipment such as goods making up a single order and bought together and checked for discrepancies. Order records will be update.
7. **Dispatching the Shipment** - The following points should be kept in mind while dispatching the goods
 - a) Orders are packed for shipping
 - b) The documents required at the time of dispatching and transportation should be ready.
 - c) Load the goods / packages

8. Operating the Information System -

The operating information system is required to maintain the records (Quantity on hand, quantity received, quantity issued & location)

9. Quality Assurance -

It needs to be followed at all the stages of operation.

SERVICES OF WAREHOUSE

Warehouse offered various services; these services generate revenue for the warehouse. These services are explained as:

1. **Spot Stocking:** Prepositioning of select inventory for a selected market for shorter time period.
2. **Full Line Stocking:** It is for longer duration, when number of manufacturers produces multiple products.
3. **Product Support:** It maintains safety stock of spares / assembly / sub-assemblies / maintenance materials so that the chances of raw material / production stoppage due to irregular supply are avoided.
4. **Market Presence:** If the warehouse services are available nearby any manufacturing unit then, more services can be availed by manufacturers like stocking of goods etc...
5. **Value Added services:** The additional services offered to a customer to facilitate certain spectrum.

- 6. Customized Packaging:** Sometimes, the packaging services are provided by warehousing companies if demanded by any customer.
- 7. Postponement of specialized packing requirement:** This can be done in the warehouse by removing specialized packages of appliances. Thus, relieving the customer / user from the problem of disposing of large quantity / volume of protective packaging.
- 8. Re-assembly:** Process of replacement of defective parts on the body ensemble, re-fit or retrofit parts or unit assembly in warehouse itself.
- 9. Changing packaging characteristics:** A warehouse operator may receive bulk in refrigerated condition and can then repack in suitably sized smaller containers and deliver them to customers.

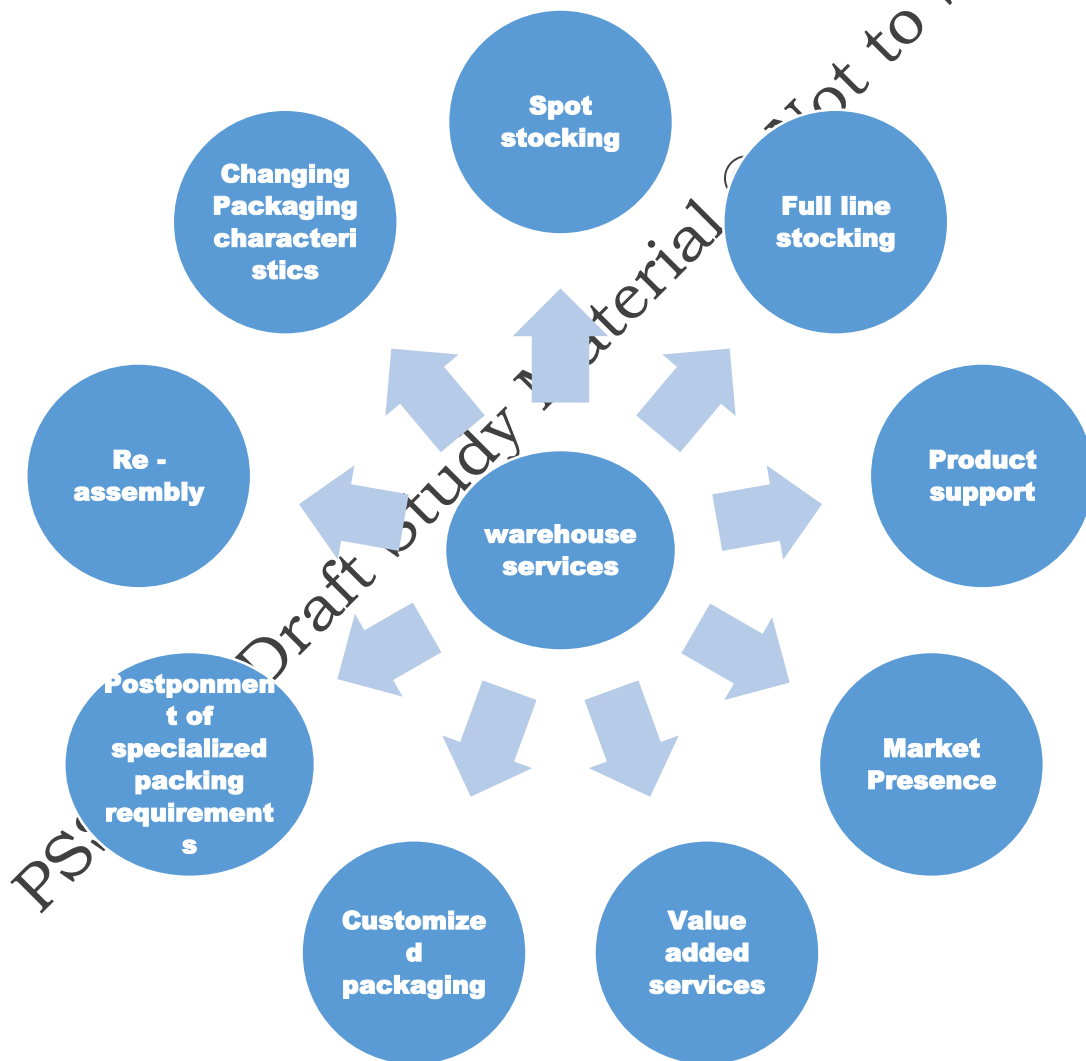


Figure 2.2 Various Services offered by warehouses

IMPORTANCE OF WAREHOUSING SERVICES

Warehousing Plays an important role because it performs multilevel activities. Some of them are as given below:

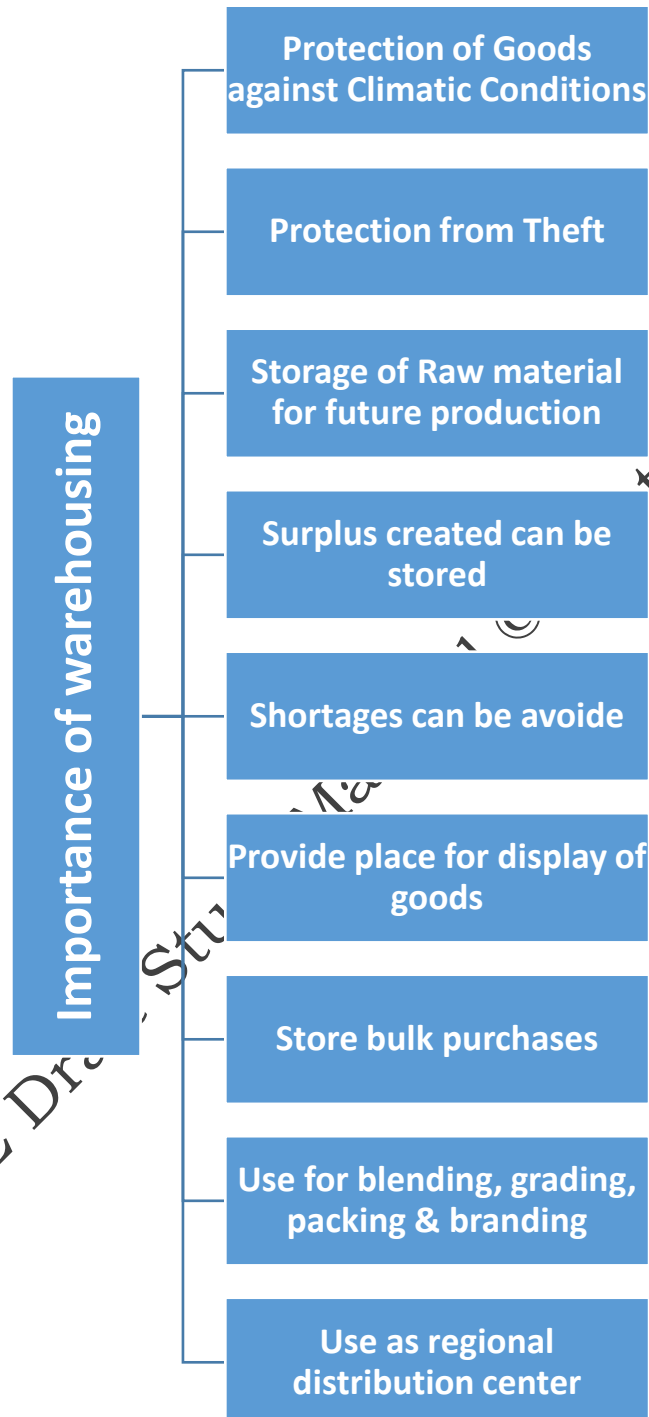


Figure: 2.3 Importance of Warehousing services

ORGANIZATIONAL STRUCTURE OF WAREHOUSING IN LOGISTICS

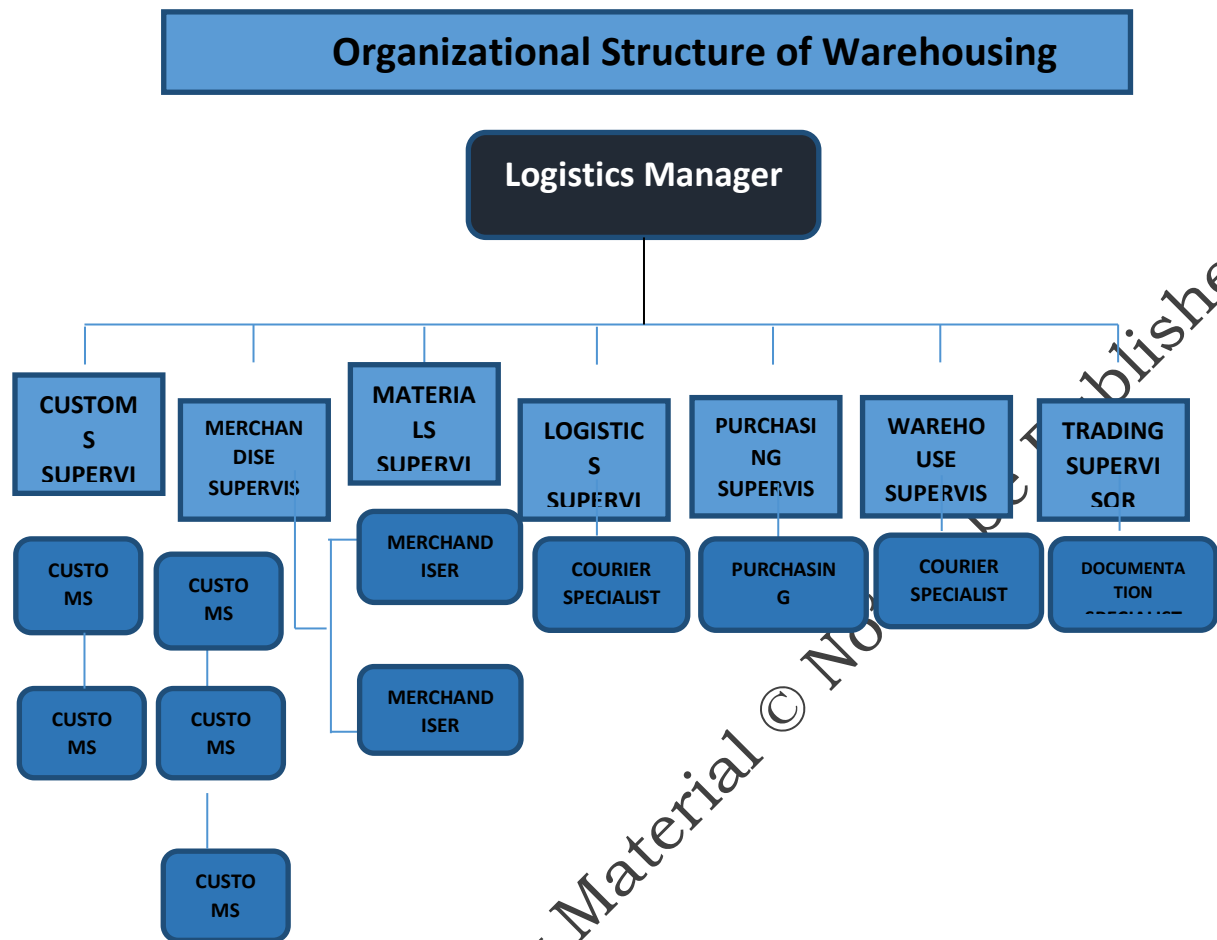


Figure 2.4: Organizational structure of warehousing

The organizational structure of warehousing is the functional structure given above, the employees are working in the departments based on what they are doing i.e. they have customs department, merchandise department, finance department, material department, logistics department, purchasing department, warehousing department, trading department etc... This structure enhances the experience of each function. For example, the entire merchandise department are working in the same department and thus they will exchange knowledge and support each other. This structure saves us money because of the economies of scale. This structure makes the coordination between different departments more difficult than other structures. It also does not allow for flexibility because of the centralization.

EMPLOYMENT OPPORTUNITIES IN LOGISTICS INDUSTRY

Careers in Logistics and Supply Chain Management are one of the vast areas for getting the jobs. Workers in the **logistics** and supply chain management field make sure that goods and services get into the hands of consumers. The **logistics industry** is an important driver of economic growth and development.

One of the most common entry-level positions in this field is customer service management. Customer service is an important part of logistics and supply chain management on an individual level, since listening to and helping your consumers is the backbone of any business. You can also work managing product inventory for a business, planning and overseeing product transportation needs, and managing supplies needed for manufacturing.

You are not limited to customer service management, however. You can also find entry-level employment working as a distribution clerk, van driver, operation clerk, and many other jobs that provide a stepping stone to more advanced positions.

Logistics is a new industry, with a promising future. In India, the Logistics industry is still in its nascent stage with a lot of challenges and bottlenecks. Over the last few years, there has been an increased focus on logistics as the sector has seen an influx of good investments, better regulatory practices, mega infrastructure projects and several other initiatives. As the economy is maturing, the logistics sector is also set to become more sophisticated. The skill gap is high and for professionals, there are interesting challenges and growth opportunities.

E-Commerce push to the Logistic Sector

Traditional logistics has in last few years has already witnessed an inwards technology pattern in India with the inception of MNCs. This is further enriched by the evolution of e-commerce market in terms of technology, operations, processes and delivery. As things in the e-commerce are heading for a real time concurrence, expectations from logistics and supply chains are increasing for being precise and accurate in their operations, delivery and service quality.

The boom in e-commerce has opened up new avenues and newer kind of challenges in the logistics sector. The success of e-commerce also seems to depend on effective IT support, transportation and better logistics infrastructure. The e-retail boom will also lead to development of relevant payment model and a new warehousing model. This calls for more efficiency and accuracy, which demands the infrastructure and skill development to

be high. E-commerce has helped in gaining public attention to the logistics and supply chain industry, so from HR perspectives it is good to attract the best talent available and subsequently offer them an exciting career option.

Various roles offered by Logistics Sector

Jobs in the logistics sector range from the positions of a fresher, say in the role of a Trainee to senior positions in various functions like Sales, Marketing, Operations, Customer Service and Support functions like Finance, HR and IT. These jobs require specific skill sets as per functional requirements which are standardized by the logistics industry. For example, a person in operations should have the knowledge of air/ocean export/import procedure and trade documentation. Similarly, a person for sales and marketing should have selling skills with knowledge of logistics market as well as part of operation/documentation and international trade. The IT, HR and Finance are more towards functional competency of candidate than on industry knowledge, however industry knowledge adds to the advantage many a times.

The key competencies required for these roles are not very different from other roles. Over and above functional competencies, In India, the focus is on basic behavioural competencies like Customer and Service orientation, Business Acumen, Communication, Relationship Management, and Flexibility. To succeed in most roles, one should have strong Analytical and Problem-solving skills. As far as qualification is concerned, it plays an important role at the entry level. One of the ways to join this sector would be to experience it as intern while pursuing some course in Supply chain and Logistics.

Demand Supply Gap in Hiring Talent

Due to new trends in supply chain and logistics fields, companies are looking for professionals with new and advanced skills in their fields. At the moment, the industry is at a more matured stage in supply chain solutions in terms of IT, infrastructure or operations than a decade back. There is still a demand-supply gap at the level of junior, middle and senior level. Reason being these jobs gradually call for advanced skills set as per the customers' increased expectations from a service provider. At an operational level as well, while we try to improve our processes, we need to train them to work on new systems and technology, but there are a handful of service providers who practice this. A larger picture still remains the same and that is where this gap comes into existence.

Women in Logistics Sector

Logistics industry is considered male-dominated as the legacy work force has been male. It suffers from poor perceptions of career opportunities – may be because it's hard to escape the impression that roles primarily involve moving and lifting in cargo complexes or warehouses. My experience over the last 4 years in this sector is that as most of the roles in logistics industry at middle and senior management level are of knowledge workers', so the success rate should be 50:50, i.e. equal, irrespective of gender. Having said that, we do not see many women in senior leadership roles, which mean there are other factors like social, industry unattractiveness, legacy factor etc. and nothing to do with competencies and performance.

In terms of the role offering, I would categorically state there is no demarcation as to which role is meant for men or women. However, in Indian logistics industry, we see that women professionals are mostly in key account management, customer service and support functions, while a few women are in warehouse operations and Field Sales. There is a need to focus on engaging women in Logistics industry in India.

Job Prospects and Hiring Scenario

Much of the recruitment and job prospects in the logistics industry depend upon how macro-economic situation changes in India. We are certainly more advanced in terms of skills requirement or trained personnel in our industry. However, inflow of new jobs will depend upon many other factors. With fast improving investment climate and MNCs bringing expertise in logistics area, we hope to improve on expertise, skills and new job generations.

In the recent years, most of the hiring done was replacement hiring while a few were on new job roles. Still the job market is not quite bullish as was expected. Although demand for skilled logistics professionals has grown during the past years, the employment was lesser than the growth rate, notwithstanding the industry trends. This is because of a guarded approach towards new hiring by the industry. This may sound paradoxical, but due to new trends in supply chain optimization, transparency, safety, integrated logistics solutions, logistics clusters, network optimization etc, there has been a demand for logistic professionals with new skills. We expect the industry will continue to pick up throughout the year 2015.

However as a general supply chain perspective the growth in employment of the industry is going to manifold across all levels i.e. from delivery boys at the front to the supervisors and general and product line management level with the growth of Ecommerce industry.

ROLES AND RESPONSIBILITY OF DOCUMENTATION ASSISTANT IN WAREHOUSING

Logistics Assistant

A Logistics Assistant works in the area of shipping and receiving and supports the logistics manager in all aspects of warehouse operations. They ensure that all incoming shipments are intact and accurate, prepare outgoing shipments, review shipment documentation such as invoices and packing lists, and maintain inventory of shipping supplies. In addition, Logistics Assistant work with shipping vendors, coordinate returns of merchandise and manage electronic shipping files.

Logistics Assistant Duties and Responsibilities

To meet the demands of these positions, Logistics Assistants are responsible for ensuring the completion of many tasks. Based on our analysis of several job postings for this occupation, we discovered that many employers note the following duties and responsibilities connected with Logistics Assistants.

Arrange Outgoing Shipments

From preparing packing lists to physically packaging outgoing material, a Logistics Assistant is involved throughout the shipping process. They review and compare transportation costs from different vendors, ensure that the outgoing shipment is accurate and well packaged, track shipments and ensure delivery.

Process Incoming Shipments

Another main responsibility of a Logistics Assistant is to receive incoming materials. In this role, Logistics Assistants compare what has been shipped with the shipment order, ensure that the materials are in good condition, stock the materials in the warehouse and file all corresponding documentation.

Manage Warehouse Inventory

It is crucial that warehouses maintain an adequate supply of shipping materials and this duty falls to the Logistics Assistant. He/she conducts a weekly, bi-weekly or monthly inventory of supplies and places orders with vendors as needed.

Logistics Assistant Skills

Due to the high frequency of interaction between Logistics Assistants and logistics managers, warehouse staff, trucking companies, vendors and others in the supply chain process, it is imperative that those in this

occupation possess strong verbal and written communication skills. They should be detailed-oriented problem solvers who work well in a team environment while at the same time possessing the skill to work independently as needed. Above-average organizational, troubleshooting and basic computer skills are also essential to this role.

Potential employers of Logistics Assistants might also take a closer look at candidates who demonstrate the following skills:

Overseeing shipment of materials

Keeping track of shipment packing, transportation mode, cost of shipment, arrival time and other important factors in the shipping process

Maintaining supply inventory

Processing reports addressing inventory levels and needs on a regular basis

Managing paper and electronic files

Generating and maintaining files of orders, invoices, packing lists, returns and other important shipping and receiving documentation

FUNCTIONS INVOLVED FOR DOCUMENTATION ASSISTANT

Warehouse assistants control the flow of stock through a warehouse, monitoring goods in and out, safely and efficiently moving and handling items and keeping stock records. Warehouse assistants are employed to make sure the process runs smoothly. Warehouse assistants are employed in many different industries and the particular role of a warehouse assistant will vary according to the sector and the type of facility in which they work - distribution centre, manufacturing plant etc. The larger the operation, the more specific the role is likely to be, with specialist pickers, packers, stock controllers. Smaller businesses are more likely to require a warehouse assistant to be an all-rounder, pitching in with all aspects of goods control and distribution. This is a male-dominated industry, but gender should not be a barrier to applicants. Warehouse staff usually works as part of a team, headed up by a team leader or supervisor. Again, the size and number of teams will be dependent on the particular business and the industry.

DUTIES AND RESPONSIBILITIES

1. Be responsible for preparation of printed materials from draft and raw input.
2. Using document model (specifications), design and develop similar printed materials after interaction with USNH computer service units.

3. With responsibility for data integrity, circulate drafted materials for approval.
4. Coordinate and expedite print production with vendors.
5. Coordinate and schedule production of printed materials with in-house printing services, involving establishing deadlines for proofing materials, estimating printing lead times, and determining circulation list for approvals.
6. Act as documentation librarian, requiring updating materials, maintaining inventory levels, coordinating periodic documentation review, and maintaining document models.
7. Maintain knowledge of current computerized publishing software packages and learn new packages as necessary.
8. Coordinate preparation/production of printed and on-line monthly training calendar, and assist with individual or group demonstrations/training sessions.
9. Provide consultation on telephone lifeline for technical support, determining nature of problem, major system involved, and appropriate action person to respond.
10. Perform other related duties as assigned.

LAYOUT OF WAREHOUSE AND OPERATIONS INVOLVED

Meaning and Significance of Warehouse Layout

The basic aim of warehousing is to store maximum possible level of products in the given space. To ensure optimum storage levels, the warehouse should be designed such that leased space is wasted and maximum space is utilized for operations. This planning of space in a warehouse is called as warehouse layout.

A warehouse is typically divided into different areas/compartments to ensure smooth functioning of all the processes. Warehouse layout describes the physical arrangement of storage racks, loading and unloading areas, equipment, office rooms, and all other facilities. The warehouse layout is important as:

1. It has a significant impact on the speed of operation in the warehouse.
2. It will be directly affecting the total cost of operation in the warehouse.
3. Layout is long term or rather permanent and cannot be changed easily.

Principles of Warehousing Layout

General principles of warehouse layout designing are:

1. Making best use of space
2. Minimizing movement of goods inside the warehouse
3. Providing safe, secure and environmentally sound conditions
4. Keeping the operational cost low
5. Ensure the use the most efficient materials handling equipment
6. Minimize aisle space
7. Maximize the use of labour
8. Provide safe and secure environment to the goods

General Warehouse layout

Warehouse layout like an architectural blueprint—where each section is clearly defined. A general lay out (refer to figure 1) will be as follows:

1. An arrival bay or doc- where goods are received checked and sorted out.
2. A storage area- where goods are stocked.
3. A departure bay or stock - where customers' orders are assembled and sorted out.
4. A material handling system for moving goods around.
5. An information system, which records the location of all goods, arrivals from suppliers, departures to consumers, and other relevant information.

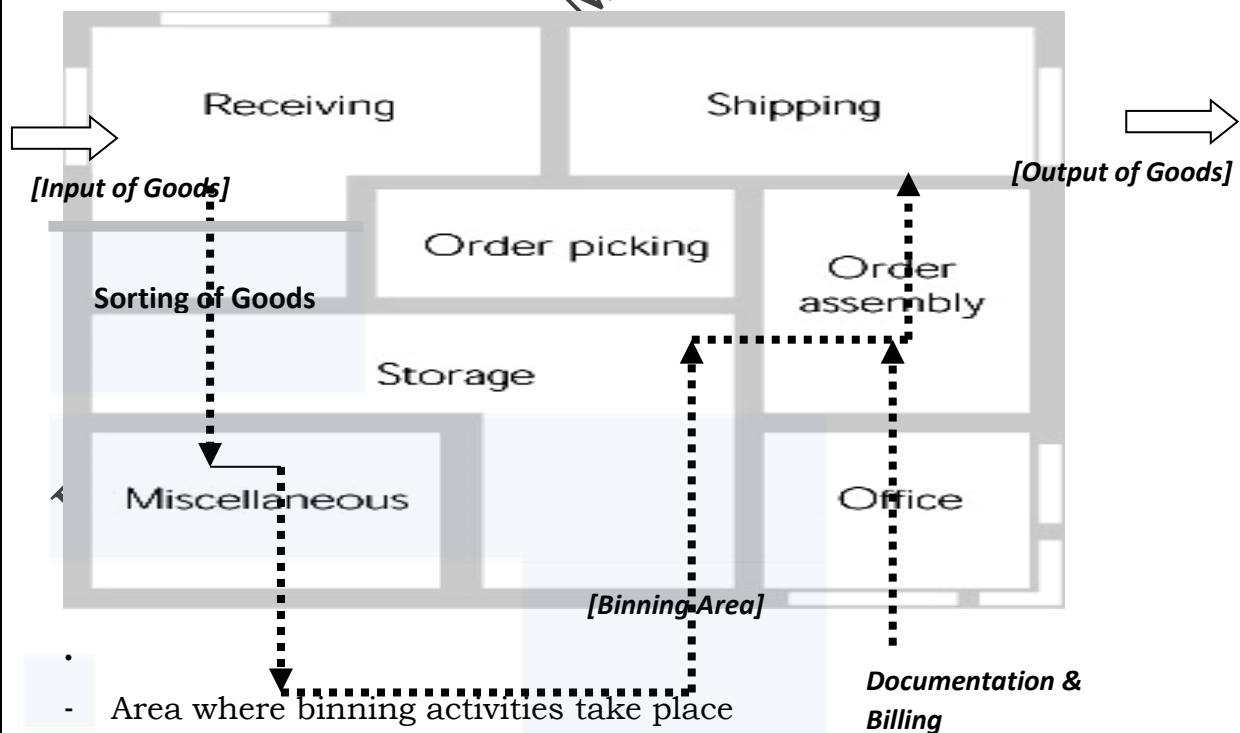


Figure 2.5: A General Layout of a Warehouse



Source: <http://www.trans-cosmos.co.id/service/ec/>

Figure 2.1: A Trypictureal layout of an E-Commerce Company Warehouse
WAREHOUSING OPERATIONS:

Operations start from Merchandise Receipt to Picking, Shipping, Returns and GIF Wrapping for delivery.

In its simplest form, “warehousing” is the storage of goods until they are needed. The goal of warehouse operations is to satisfy customers’ needs and requirements while utilizing space, equipment, and labour effectively. The goods must be accessible and protected. Meeting this goal requires constant planning and ongoing change.

How does your organization view warehouse operations? Some will say it is an unavoidable cost of doing business, others that it is a necessary service to our customers. A few will say it is a valued part of our publishing program. While we all agree that warehousing is an unavoidable cost and that it provides a necessary service to our customers, do we also agree that it is valued part of our publishing program? I believe we do. The only question is who should handle warehousing needs: should we do our own or let someone else do it for us? Either way the effectiveness of warehousing operations certainly will contribute to how your customers perceive your organization. You can publish great books, but for them to receive high

praise, your customers need to receive them promptly and in good condition.

A. Objectives of Warehouse Layout and Design

The objectives of warehouse layout and design are discussed in fig 3.

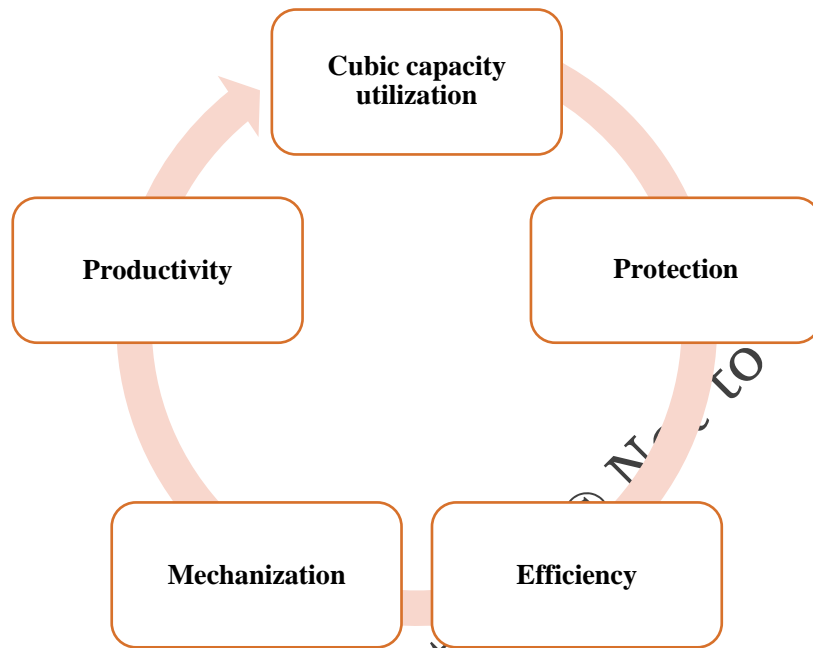


Figure 2.6: Principles of warehouse layout and design

- 1. Cubic capacity utilization:** Cubic capacity is a measure of net storage space available in a warehouse. Main aim of layout is to completely utilize cubic capacity of the warehouse. In simple terms, it is complete utilization of the space.
- 2. Protection:** The layout should be planned such that maximum security of products is ensured. Minimum movement and handling of goods within the warehouse should be determined.
- 3. Efficiency:** Efficiency of a warehouse implies reduced cycle time and faster processing of orders. Layout should be designed keeping in mind the fact that the time required for receipt of goods, storage, sorting and despatch should be least. An error free working environment should be developed.
- 4. Mechanization:** Optimum utilization of mechanical equipment's is a major objective of warehouse layout.
- 5. Productivity:** The layout should ensure improved overall productivity of the warehousing system. Improved productivity means lesser time, lesser cost, more stock turn around and an error free system.

The efficient input-output process of goods inside the warehouse depends upon the layout of the warehouse. An effectively planned warehouse leads to speedy and error free flow of warehousing system. Thus, understanding the layout of the warehouse is an important aspect to understand the handling sequence of the warehouse. Layout helps the worker to understand which path he has to follow to complete his operations. After understanding the types, functions and layout of the warehouse, a student is ready to understand his individual function in the warehouse.

PREQUISITES OF JOINING THE LOGISTICS INDUSTRY

The logistic industry is a new and less known to all. The logistics industry covers all most each and every operation in the management of the system and fulfils the whole system. Logistic module controls all the entities and their functions in the warehouse as well as the operations in the real world scenario. Due to this, the availability of products is maintained and all the orders are complete. These operations are involved in all types of commerce business and play a vital role in the present industry and hence due to all this, the importance of the Logistics is very high. Due to this, there are a number of factors that make this a very important sector of Indian economy. A few of those are as follow as:

- A big industry: The Logistics module is the new yet, control all the most common functionalities of the system. All the major operations in the industry somewhat depend on the logistics in one way or another and hence, this makes logistics as a spate and big section of the industry and has its own unique importance.
- Less awareness among people: The logistics industry is new, and hence their knowledge is very less. People know very less about this industry and which makes this industry with the very less competition and with the less skilled labor. So, having a greater knowledge in this field does pay well in the end of the road.
- Multiple zones of availability: The section provides maximum availability since, the control over delivery and transportation. Hence this section covers most the area than any other industry covers. Due to this, traveling aspect is also covered in the section. All this ends up with a best and most creative way for the development of a greater economic background.
- All time involvement: This section provides with the most interesting job roles and high availability with maximum times. This made the jobs in this section as high pressure one, since, a number major responsibilities

and overall high lookout factor makes this job as one with high pressure one.

These are a few points that are mentioned, and explain the importance of the Logistics Division in India and its economy. Almost every industry needs the supply for their stocks whether its raw material or final end product. Due to all this, the demand of skilled people for this section is high. And in order to fulfil the desire requirements, the career in this sector is considered to be possibly high. The growth rate in this section increases with a higher rate, and also, from the past years with a very large increase in the establishments of E-commerce and M-commerce business, the rate of employment is always rising and is at a peak.

Activity

Activity 1: Perform the duties of documentation assistant in a given situation

Role Play: The class will divide into two groups

Group A – Play a role of Documentation Assistant

Group B – Play a role of client / delivery executive/pickup executive (one who brings the parcels with documents)

Step by Step Procedure:

- The class is divided into two groups i.e., Group – A & Group – B
- Group A will perform the role of Document Assistant
- Group B will perform the role of client / delivery executive/pickup executive
- Both groups will perform the duties related to documentation assistant.
- This performance would be based on their previous visit to the warehouse.
- Ensure about your role completion in a given situation
- Discuss with the classmates in front of your teacher
- Write the conclusion of it.

Check Your Progress

A. Fill in the Blanks

1. Warehouse happens to be a key function for the _____ and distribution.

2. The dispatching documents are required at the time of _____
3. The _____ is an important driver of economic growth and development
4. _____ is an important part of logistics and supply chain management.
5. A Logistics Assistant works in the area of _____ and receiving and supports the _____ in all aspects of warehouse operations.

B. True or False

1. Cubic capacity is a measure of net storage space available in a warehouse.
2. Optimum utilization of mechanical equipment's is a major objective of warehouse layout.
3. Operations start from Merchandise Receipt to Picking, Shipping, Returns and GIF Wrapping for delivery.
4. The basic aim of warehousing is not to store maximum possible level of products in the given space.
5. Processing reports addressing inventory levels and needs on a regular basis.
6. The boom in e-commerce has opened up new avenues and newer kind of challenges in the logistics sector.

C. Define the following terms:

1. Identification of Goods
2. Picking Goods
3. Quality Assurance
4. Re – assembly
5. Logistics Assistant
6. Warehouse Inventory
7. Incoming Shipments

D. SHORT ANSWER QUESTION

1. Explain the prerequisites of joining the logistics industry?
2. Draw an organisational structure chart?
3. What services offered in a warehouse?

E. CHECK YOUR PERFORMANCE

1. Draw a chart of duties and responsibilities of documentation assistant.

Session 2: Prepare for Collecting Information

MEANING OF SCHEDULE

Schedule

A schedule that is specific to Logistic Management related Activities, Actions, Tasks, Services, or Work.

Scheduling

Scheduling is the process of arranging, controlling and optimizing work and workloads in a production process or manufacturing process. **Scheduling** is used to allocate plant and machinery resources, plan human resources, plan production processes and purchase materials.

Scheduling involves taking decisions regarding the allocation of available capacity or resources (equipment, labor and space) to jobs, activities, tasks or customers over time. Scheduling thus results in a time-phased plan, or schedule of activities. The schedule indicates what is to be done, when, by whom and with what equipment. Scheduling seeks to achieve several conflicting objectives: high efficiency, low inventories and good customer service. Scheduling can be classified by the type of process: line, batch and project.

Logistic Schedule

A short form of the term Logistic Management Schedule that represents a usually date and time sequenced document, either paper or electronic in form, used to order and itemize Logistic related Activities, Actions, Tasks, Services or Work that are associated with the discipline known as Logistic Management, usually with the intent of being published to a broader audience or set of stakeholders for general coordination.

Route Scheduling

One of the main roles of a transport planner is to create a highly efficient schedule. This involves combining orders with routes and shifts in such a way that total costs are minimized, and all business rules and service constraints satisfied. In today's world, this is a process far too complex to be done manually.

Optimize Route Scheduling

The complexity of transportation planning is increasing rapidly. First, customers are becoming more demanding and legislation stricter, while rising fuel and labor costs are adding further pressures. Secondly, there is a trend towards supply chain optimization. These factors increase enormously the choices that a planner has to make. There is a real need for a route scheduling

optimizer that can create optimal routes and shifts for drivers while at the same time taking into account numerous restrictions, including:

- **Time windows:** loading and unloading locations (e.g. depots, customers), inner city restrictions
- **Time & distance:** travel times and distances between all locations taking into account speeds, vehicle types and expected traffic congestion
- **Vehicle limitations:** including e.g. weight, volume, loading meters, pallets (and combinations of these elements); but also compartments and other complex loading restrictions
- **Resource capabilities:** different types of vehicles, trailers and drivers. Each with their own required capabilities for driving, (un)loading and other location-specific restrictions
- **Driver availability:** a driver must be available, and scheduled routes must adhere to driving and working time legislation
- **Cost constraints:** taking into account the cost structures of the various resources or subcontractors when minimizing costs
- **Other constraints:** including multi-depot scheduling (e.g. multiple location loading on one route, combining in- and outbound flows, etc), as well as any industry-specific business constraints

Advanced Routing and Scheduling delivers innovative decision support for route scheduling. This includes:

- **Cutting-edge optimization.**

State-of-the-art optimization engines compute optimal routes, with the underlying algorithms based on a combination of fundamental R&D and robust academic theory. Progress screens show intermediate results and the planner can even fine-tune settings to compare different optimization strategies. Optimizers can be used for optimizing both distribution and collection. They also support a variety of combinations, such as mixed collection and distribution, inbound and outbound, and multi-depot scenarios. If different business divisions within a company require different optimization strategies, these can be modelled in the solution. And depending on circumstances and problem characteristics, the planner has the capability to decide to apply different strategies to obtain a desired outcome

- **Choices presented.**

Advanced Routing and Scheduling solution contain proposal functionality that presents the best options for inserting an order or route into an existing schedule, but leaving the ultimate decision up to the planner

- **User-friendly overviews.**

The users have a full overview of the schedule at all times: orders, routes and resources are shown. Gantt charts and maps display information graphically, and real-time KPI gauges indicate the quality of each schedule

- **Easy adjusting of schedules.**

Planners can adjust a schedule at any time. Useful for trying out different scenarios, squeezing in a rush order, or overruling restrictions based on ad-hoc business decisions or specific planner knowledge. For example, allowing a vehicle to be late if a customer consents to this. So the know-how of your planner and the optimizing power of our technology combine to deliver the best possible solution for your business.

BETTER RESULTS, INCLUDING:

- more efficient operations through better utilization of own resources and sub-contractors, plus reduced empty miles and improved vehicle utilization, generally yielding cost savings of 2–10%
- reduced CO2 footprint due to the reduction of miles per stop
- operational excellence: a centralized planning organization and increased span of control for planners
- improved flexibility for customers by delivering a quick, flexible response to orders that are running late
- higher service levels: more on-time deliveries; adherence to legislation, rules and constraints

What are the results of optimizing Route Scheduling?

The results of optimizing Route Scheduling with ORTEC:

- Increased insight into route plans and vehicle costs
- Reduced planning and dispatching time
- Greater capability to manage last-minute changes (e.g. urgent orders)
- Quick simulation of different planning scenarios
- Comparison of planned routes with actual driven routes
- Automatic consideration of restrictions such as delivery windows

- Significantly lower transport costs by reducing driving distance, driving time, and increasing vehicle utilization

IMPORTANCE OF SCHEDULE IN LOGISTICS

One of the most common reasons a shipper will switch their 3PL provider is because of repeated service failures. This includes everything from a truck showing up late, to shifted or damaged product that gets rejected by the consignee.

If you are seeing repeat service failures with your freight, ask yourself whether your provider is asking enough, or the right questions. Also, are you providing them with all the details they need to perform at the level you require?

A lack in performance often equates to a lack in communication. A service-focused logistics provider will go above and beyond when it comes to:

- Asking questions about your shipment
- Recording details
- Providing updates
- Confirming delivery
- Tracking orders

Here is a detailed account on why, and how, paying extra attention to shipper and carrier needs can equate to a seamless transportation program.

Why Appointment Scheduling is Important in Transportation

Some warehouses have open scheduling, most often called First Come First Serve (FCFS), meaning the driver can pick up or deliver a shipment within an agreed upon range of hours.

Other distribution centres require actual delivery appointments and are often called a strict location or appointment facility. For these warehouses, it's imperative to do everything possible to have drivers and carriers arrive on time and without issue.

Even if a shipper or receiver is FCFS, it is advised, as a courtesy, that you notify them of the expected pickup or delivery date. This can head off all sorts of problems, such as:

- Inventory shortages
- Holiday closures
- Warehouse policy changes
- Missing these strict appointments can result in:

- Rescheduling
- Hefty fines
- Outright refusals
- Strained relationships

These service failures are damaging to both your brand and your bottom line. Therefore, it is crucial that your 3PL provider know how to approach scheduling and delivery with an acute attention to detail. This helps drive confidence across your operations, sales, and customer service teams.

WORK SCHEDULE FROM THE TRANSPORT MANAGER FOR THE DAY

Moving products from manufacturing plants to warehouses, between international, national, and regional facilities and to distributors, can represent more than half of your total logistics costs. Add international sourcing and final distribution to store or end customer, and those costs can rocket even higher. Transportation management solutions give you the resources and visibility you need, at a cost you can manage.

Whether we're managing your carriers, creating a dedicated fleet or a mix of the two, we deliver high levels of service, reliability and control over your product movement to your customers.

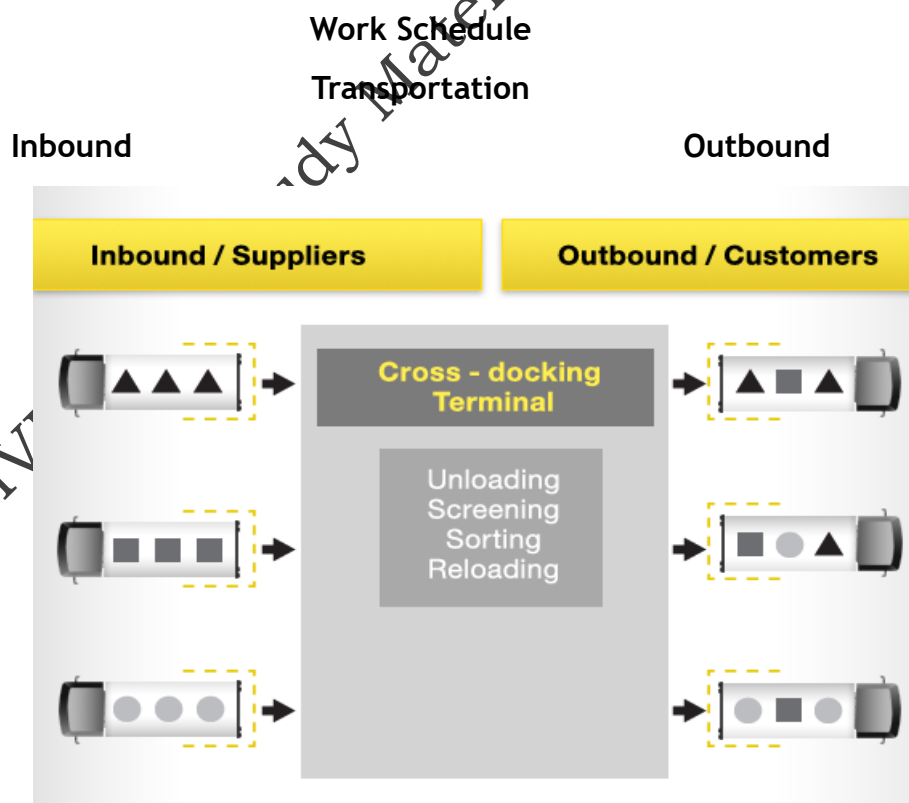


Figure 2.2: Work Schedule

ROUTE, WEIGHT OF THE LOAD AND TYPE OF TRUCKS

ROUTE

A route analysis system could utilize this kind of data to generate the most efficient routes that any vehicle should take based on the current inventory load it is carrying. The system could then generate a manifest that has not only the drop-off address but also driving direction and even a map that details that route which the system finds most suitable.

Time is money, and a route planning system can drastically reduce the time it takes to plan your transportation schedule. Not only do route planning systems lower mileage, they also help cut fuel usage, decrease carbon emissions, improve asset utilization, and increase customer service.

- 1. Schedules and routes trucks daily:** If order quantities vary daily or weekly, choose a system that automatically calculates efficient truck routes and multi-stop schedules every day. This will reduce overall miles, fleet costs, and daily planning efforts.
- 2. Enhances fixed routes and schedules:** To manage a transportation operation with regular order dates and quantities, select a system that calculates optimized routes and schedules while meeting required customer delivery windows, truck capacities, driver hours, and other transportation restrictions.
- 3. Optimizes deliveries continually:** As new orders are added, a system that continually re-optimizes schedules will maximize efficiency by taking into account delivery areas, available resources, and existing deliveries already confirmed.
- 4. Supports clients:** Advanced support services are key to the success of any route planning project. An allocated support consultant, who helps ensure successful software implementation and quick delivery of benefits, can be instrumental in the route optimization project. An off-hours hotline service can also help.
- 5. Links with live vehicle tracking:** Live vehicle tracking allows managers to detect anomalies in route times and distances so they can act immediately to control costs. Comparing planned to actual routes ensures drivers are following the plan. If any deviation occurs, customers can be alerted to delays.

- 6. Considers "what-if" scenarios:** Using historic data to prepare for vehicle size changes, shifting driver hours, and alternative delivery locations for distribution networks will improve transport efficiency.
- 7. Uses multi-period planning:** Multi-period planning decides the best delivery patterns for each customer, ensuring multiple deliveries to the same customer are sufficiently spread out across the planning period, while also combining deliveries geographically and balancing workload across the period. Allocating delivery profiles in this way ensures you meet customer delivery requirements, while also minimizing transportation costs.
- 8. Creates software development plans:** Clear software development plans for the future are important. A strong supplier should be evolving its product regularly, taking advantage of new technologies and creating solutions that meet the needs of today's transportation operators.
- 9. Combines central scheduling:** Combining central scheduling of all fleet movements gives transportation planners the ability to plan nationally or regionally. Inter-depot trucking movements, supplier collections, and packaging disposal can be incorporated to drastically reduce costs and create significant efficiencies.
- 10. Pays attention to reporting:** Key performance indicators and business intelligence reporting allows companies to detect operational trends, predict cost implications, and identify possible preventive measures.

WEIGHT OF THE LOAD AND TYPE OF TRUCKS

The following are the types of trucks used for various loads for transporting the goods from one place to another place.

Project Cargo Trucks

Transportation of over dimensional, heavy and bulky cargo wherein each cargo is carefully handled and securely delivered. Project cargo is especially large or bulky cargo that cannot be transported in a container. Examples are parts of cranes or wind power stations, turbines etc.). We arrange for most suitable Trailers, Axles, and open vehicles for such movements. We procure all permissions for transportation from the relevant authorities.



Picture 2.3: Project Cargo

Containerized Transportation

Container transportation is strong fleet of containers in various sizes and capacity. We guarantee protection of your cargo in transit as well as there is cost advantage, if full weight / volume capacity of our container is utilized.



Picture 2.4: Containerized Transportation

Full Truck Load

Full truck loads and transfers them from one destination to other domestic destinations in the scheduled time frame with the lowest and most complete freight.



Picture 2.5: Full Truck Load

VEHICLE LIST DIMENSION

This provides vehicles lists and their capacity. The page lists the dimension of vehicles and their ideal capacity to carry goods. Also, the know how about vehicle is best fit for which transportation segment



Picture 2.6: Tata 407

Capacity: 2300Kg

Details: With a dimension size of 9.5ft x 5.5ft x 5.5ft.



Picture 2.7: Truck LPT Capacity: 4500 Kg

Details: With a dimension size of 17ft x 6ft x 6ft.



Picture 2.8: Truck Center Capacity: 3000 Kg

Details: With a dimension size of 14ft x 6ft x 5.5ft.



Picture 2.9 Truck LPT 1109 Capacity: 7500 kg

Details: With a dimension size of 19ft x 7ft x 6ft...



Picture 2.10: Truck LP Capacity: 9000 Kg

Details: With a dimension size of 17.5ft x 7ft x 7ft.



Picture 2.11: Truck Tours Capacity: 15000 Kg

Details: With a dimension size of 22ft x 7.5ft x 7.5ft.



Picture 2.12: Trailer-High Bed Capacity: 20000 kg

Details: With a dimension size of 40ft x 8ft x 8ft.



Picture 2.13: Trailer (50ft long flatbed) Capacity: 30000 kg

Details: With a dimension size of 50ft x 9ft x 9ft.



Picture 2.14: Container Capacity: 7500 Kg

Details: With a dimension size of 32ft x 8ft x 8ft.



Picture 2.15: Container Capacity: 15000 Kg

Details: With a dimension size of 32ft x 8ft x 8ft..

STANDARD FORMAT OF DOCUMENTATION CHECKLIST OF THE CONSIGNMENT

The following documents should be maintained (in chronological order) and made available for inspection by monitors, program management, and auditors.

As these documents are used to develop many management and financial reports, procedures should be in place for adequately safeguarding them against improper access and loss. Safeguards may take many forms, including physical restraints (such as locked or secured storage areas), restricted use (any document leaving the warehouse must be signed for), or password-controlled computerized accounting systems.

- Receiving waybills/ notes
- Distribution plans
- Dispatch authorizations
- Dispatch waybills (preprinted and prenumbered)
- Waybill tracking documentation
- Tally sheets (loading and offloading)
- Casual laborer attendance sheets
- Stack cards (by commodity and by shipment)

- Separate warehouse ledgers for:
 - Each commodity type and shipment number
 - Damaged/unfit commodities
 - Commodity loans/transfers
- Commodity reconstitution records
- Commodity disposal/destruction records
- Warehouse fumigation records/reports
- Warehouse inspection reports
- Warehouse physical inventory count sheets/reports
- Loss (damage) reports (preprinted and renumbered)
- Internal loss claim records and backup documents
- Warehouse daily reports
- Warehouse monthly reports
- Commodity status reports
- Warehouse assets/equipment list

Activities

Activity 1: Prepare schedule for work for the day

Material Required: Notebook, pen/pencil, drawing sheet, Colour pencil

Step by Step Procedure:

1. Collect the various warehouse schedule from different sources
2. Draw it in a drawing sheet
3. Mention the sources and work procedure
4. Submit the note to the teacher

Activity 2: Prepare the checklist for the documentation

Material Required: Notebook, pen/pencil, drawing sheet, Colour pencil

Step by Step Procedure:

1. Prepare / make a checklist in a drawing sheet
2. Write the required information in a sheet
3. Ensure about your work completion
4. Discuss with the classmates in front of your teacher
5. Write the conclusion of it.
6. Submit the note to the teacher





Check Your Progress**A. FILL IN THE BLANKS**

1. _____ is the process of arranging, controlling and optimizing work and workloads in a production process
2. One of the main roles of a transport planner is to create a highly _____ .
3. _____ can adjust a schedule at any time.
4. _____ is especially large or bulky cargo that cannot be transported in a container.
5. _____ transportation is strong fleet of containers in various sizes and capacity.
6. Some warehouses have open scheduling, most often called _____ .

B. TRUE OR FALSE

1. Documents are used to develop many management and financial reports.
2. Full truck loads and transfers them from one destination to another domestic destinations with the lowest and most complete freight
3. Container transportation is not strong fleet of containers in various sizes and capacity.
4. Time is money and a route planning system cannot drastically reduce the time of transportation schedule.
5. A transportation management solution gives you the resources and visibility you need, at a cost you can manage.

C. MATCH THE COLUMNS

S.no	Column A	S.no	Column B
1		A	TRUCK LPT (5)
2		B	FULL TRUCK LOAD (3)
3		C	CONTAINERIZATION TRANSPORTATION (1)
5		E	TRAILER (4)

D. SHORT ANSWER QUESTIONS

1. Describe the work schedule of transport manager
2. Explain the route planning
3. Describe the standard format of documentation checklist

E. CHECK YOUR PERFORMANCE

1. Prepare a work schedule for the day for yourself.

Session 3: Prepare for Processing Documentation

USES OF COMPUTER SYSTEM AT WAREHOUSE

Computerization has revolutionized inventory management, as technologies ranging from automatic scanners to radio frequency identification chips now allow businesses to track their inventory from the moment a company buys it wholesale to the moment the products leave the building in the hands of a customer.

Receipt of Goods: Warehouse uses bar code or radio-frequency identification scanning at the point of receipt of goods. Scanning individual items or shipment pallets allows a company to itemize all shipments from the supplier, which can be compared against the purchase order for errors or losses in transit. When your business ships these goods out of the warehouse to their point of sale, a second scan can automatically tally the remaining stock in the warehouse, and send messages to the purchasing managers indicating that it is time to reorder.

Retail Turnover: Many businesses use similar scanning techniques at the point of checkout. Bar code scanners are more popular than RFID for this purpose. Both will automatically enter the correct price at the register and prevent data entry errors. They also can create a perfect real-time record of how much stock remains on the shelves, how much is available in on-site storage, and whether a new shipment is necessary from the warehouse. Combine this information with warehousing data, and your business can create additional alerts to key management when a bottleneck occurs.

Stock Management and Cost Reduction: The process of moving goods through a company pipeline is always economically inefficient. The purchase of the goods represents an investment of company capital, which your business cannot recoup until you sell your inventory. Warehousing of goods before sale introduces the possibility of inventory shrinkage in value from theft, damage, deterioration or changes in customer taste. Moving goods from warehouses to the point of sale involves shipping costs, especially if the shipment is incorrect, or if the internal shipping process is inefficient. Computerization provides a real-time picture of this entire work flow process, and allows managers to reduce purchasing costs through minimizing inventory, increase the efficiency of internal shipping systems, and reduce the possibility of theft or damage by being able to track each item down to the individual staffer who takes responsibility for it.

INTRANET AS PER COMPANY

The goal of any warehouse is to control the movement and storage of goods in

the most efficient manner possible. The days of pen and paper are gone. Software driven warehouse management solutions allow you to incorporate real-time data capture, automation and printing technologies into your warehouse infrastructure. The common warehouse tasks of raw/finished goods inventory management, directed picking and put-away, replenishment, packaging and supply chain logistics can all be optimized to save time to make for greater profits.

Warehouse management systems can be standalone applications or integrated with an existing ERP system. WMS software, mobile computers, scanners, labeling equipment and wireless infrastructure are all essential components to create a robust and efficient system. With the right solution in place you can scale your system as your business needs grow.

BENEFITS OF INTRANET

If implemented successfully, an intranet can bring many benefits to your business. Some of the main advantages of an intranet are:

Better internal communications - intranets can act as communication hubs for staff. Corporate information such as memos, staff news and announcements can be stored centrally and accessed at any time.

Sharing of resources and best practice - a virtual workspace and community can be created to facilitate information storing, sharing and collaborative working. An intranet can also act as a training platform when providing online training content to staff.

Improved customer service - better access to accurate and consistent information by your staff can lead to enhanced levels of customer service.

Business efficiency and intranets

Your business' efficiency can be improved by using your intranet for:

Publishing - delivering information and business news as directories and web documents

Document management - viewing, printing and working collaboratively on office documents such as spread sheets or databases

Training - accessing and delivering various types of e-learning to the user's desktop

Workflow - automating a range of administrative processes, including dealing with holiday requests, staff performance reviews and appraisals, meeting room and equipment booking, etc

Front-end to corporate systems - providing a common interface to corporate databases and business information systems

Email - integrating intranet content with email services so that information can be distributed effectively

It is a good idea to give your intranet a different image and structure from your customer-facing website. This will help to give your internal communications their own identity and prevent employees confusing internal and external information.

COMPONENTS OF INTRANET

WMS Software - The functions that are available and the general process flow are determined by your management software. Many applications are modular and can be expanded with additional functions like real-time transactions, wave picking and integration to an ERP system.

Mobile Computer - Mobile computers provide the tools and information a warehouse worker will need on the fly for every task they work on. Choosing a unit that is easy to use and can handle the ruggedness of your environment is central to the effectiveness of your WMS.

Barcode Scanner - Not all functions in your warehouse may need mobile devices but still require scanning. Scanners offer a range of durability, long range or 2D scanning and cordless operation to fit your specific needs.

Wireless Infrastructure - Many businesses need system updates to occur in real-time and a wireless network required to do so. No matter the size of your facility, a network can be scaled to accommodate it and your bandwidth needs.

Barcode Printer - Inventory and shipping labels are necessary for any warehouse to process inventory. Fixed and mobile printers can be utilized to ensure that everything has a scannable ID so it can be sorted and shipped properly.

COMPANY SOFTWARE AT WAREHOUSES FOR DEALING WITH DOCUMENTATION

Companies are using different software's for dealing with documentation. These softwares are maintaining the documentation as per requirement at the warehouses.

The following are the types of softwares used at warehouses for dealing with the documentation:

- WMS(*Warehouse* Management system)
- SAP
- WMCS (*Warehouse* Management Cloud Solution)

- WISE. We like that WISE is a great fit for both small distribution warehouses and large enterprises. ...
- 3PL Warehouse Manager by 3PL Central. ...
- 3PLink by Camelot 3PL
- Infoplus
- Fishbowl Inventory
- Enterprise WMS and Interchange EDI
- Microsoft Dynamics 365.

Printer and its settings

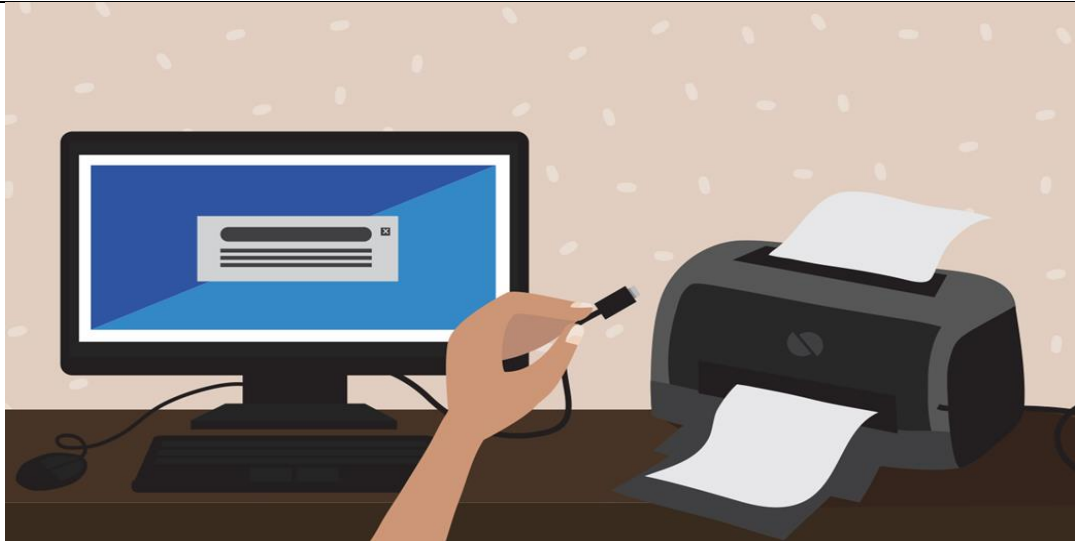
Here are the basic steps you'll follow to set up almost any printer.

1. Plug in the printer's **power cable** and make sure it's **turned on**.



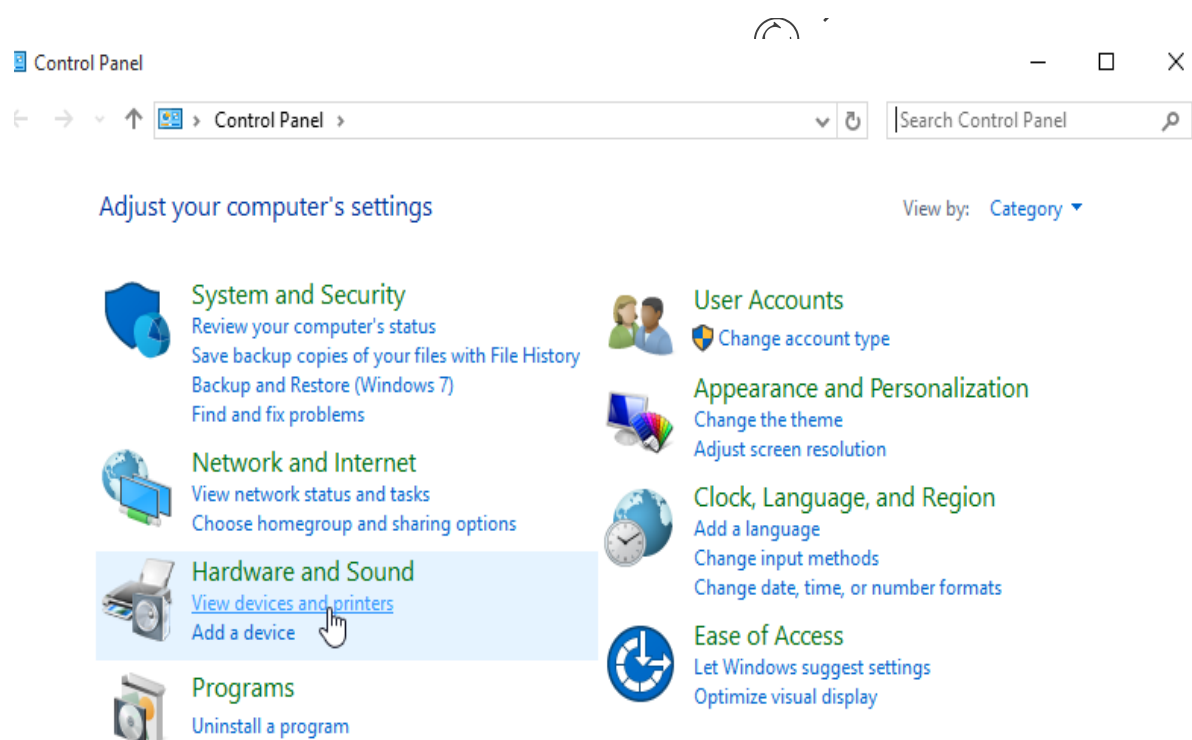
Picture 2.16: Printer

2. Connect the included cable (usually a **USB cable**) from the printer to the computer. Note: The process will be different if you're using a **wireless** printer; we'll talk more about that later on.



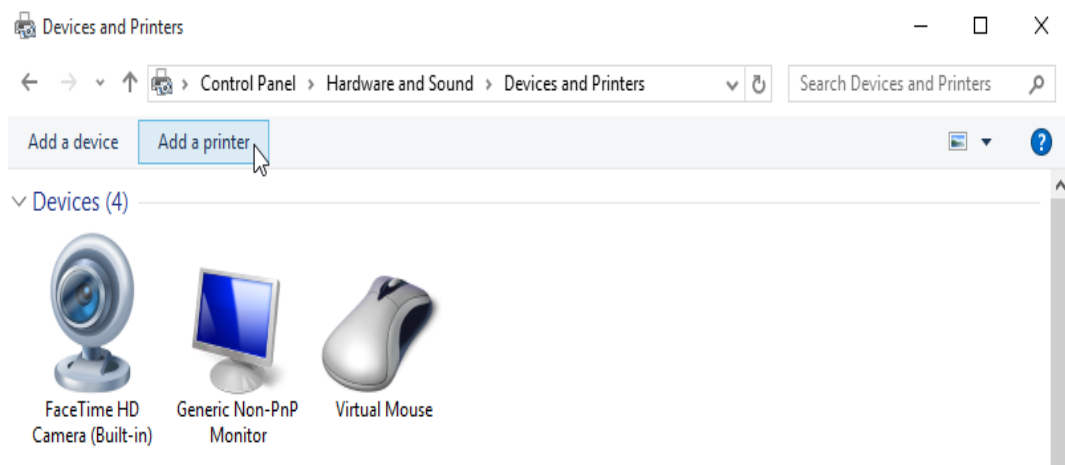
Picture 2.17: Connecting printer

3. On your computer, locate the **Printer settings**. If you're using a Windows computer, you'll find these in the **Control Panel**. If you're using a Mac, you'll find them in **System Preferences**.



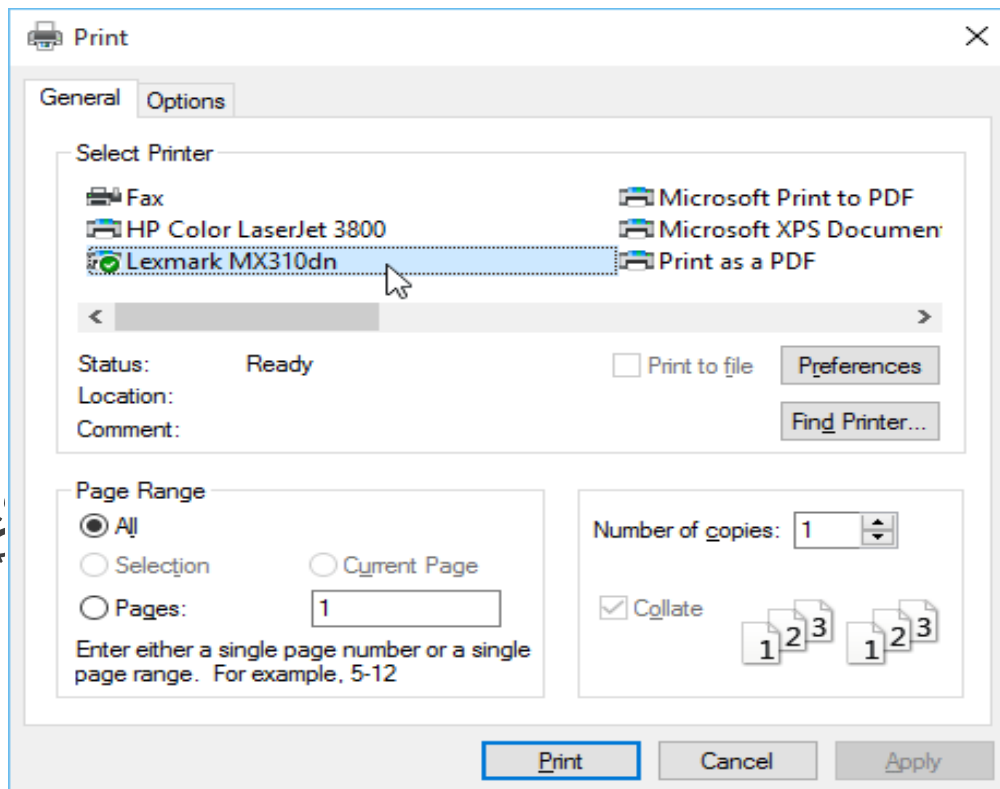
Picture 2.18: control panel setting

4. Look for the option to **Add a printer**, then follow the instructions that appear.



Picture 2.19: Devices and printer

5. Now it's time to try printing something! For example, you could try printing **this test page**. After you click the link, select **File > Print** from your web browser's menu, or simply press **Ctrl+P** on your keyboard (or **Command+P** if you're on a Mac).
6. A dialog box will appear. Locate and select the new printer from the list, then click **Print**.



Picture 2.20: Attachement of printer

Activity

Activity 1: Prepare a chart showing the steps followed by documentation assistant in a computer by using software.

Material Required: Notebook, pen/pencil, drawing sheet, Colour pencil

Step by Step Procedure:

1. Draw a steps followed by documentation assistant in a drawing sheet as per your previous visit to the warehouse.
2. Mention the sources and work procedure
3. Submit the drawing sheet to the teacher

Check Your Progress

A. FILL IN THE BLANKS

1. Warehouse uses _____ scanning at the point of receipt of goods.
2. The goal of any warehouse is to control the _____ and _____ of goods in the most efficient manner possible.
3. _____ are necessary for any warehouse to process inventory.

B. TRUE OR FALSE

1. Computer is not attached with printer.
2. Printer can do scanning also.
3. To maintain inventory at warehouse records are maintained in computers only.
4. Email - integrating intranet content with email services so that information can be distributed effectively.
5. Training - accessing and delivering various types of e-learning to the user's desktop.

C. WRITE THE FULL FORMS OF FOLLOWING

1. WMS
2. SAP
3. WMCS
4. 3PL
5. EDI

D. REARRANGE THE FOLLOWING WORDS AND MAKE THE CORRECT ONE

1. HSOUREWEA _____

2. KEOCETLTNB _____
3. INVNORETY _____
4. INSPGHPI _____
5. IRINGNPT _____
6. CNNGSANI _____
7. SNESARCN _____

E. SHORT ANSWER QUESTIONS

1. What process will you follow to take the print of inventory list from computer?
2. How can you improve your business' efficiency by using intranet?

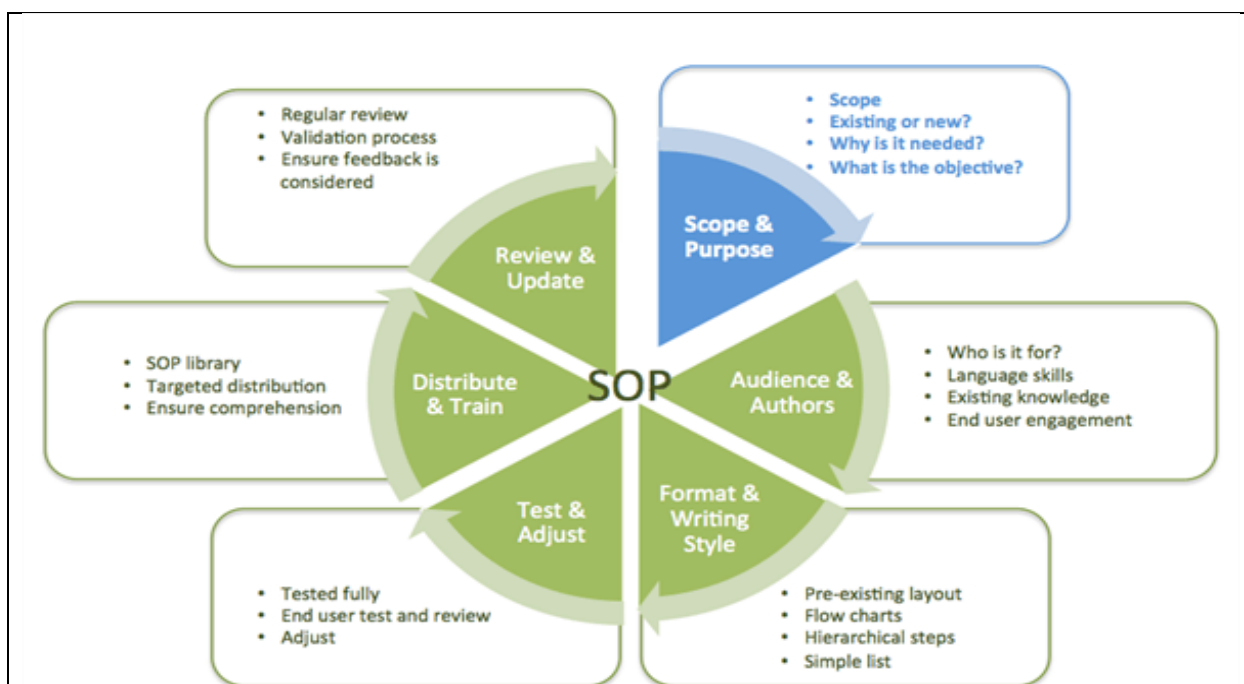
F. CHECK YOUR PERFORMANCE

1. Log in into computer using given credential.
2. Save the given data.
3. Take a print.
4. Logout.

Session 4: Compile Documentation**STANDARD OPERATING PROCEDURES AT WAREHOUSING**

A standard operating procedure (SOP) is simply a document providing instructions on how a person should perform a routine or technical task followed by either a business or industry.

An important aspect of any quality system is to work according to clear-cut Standard Operating Procedures (SOPs). An SOP is a policy and procedure document which describes the regular recurring activities appropriate to quality operations. If it is Critical to Quality (CTQ) then it is a candidate for a standard operating procedure. Consistency is the goal or purpose of an SOP, to carry out all operations correctly and always in the same manner.



Picture 2.21: Standard Operating Procedure

DEFINITION OF SOP (STANDARD OPERATING PROCEDURES)

A written method of controlling a practice in accordance with predetermined specifications to obtain a desired outcome. SOPs are written steps to explain good manufacturing practices (GMP), plant safety routines, financial controls to secure assets, or IT security measures that employees are to follow. SOPs are step by step procedures on how to do something that is critical to quality, critical to safe operations, or critical to security.

NEED OF PROCEDURES

Regulations may require them as part of the compliance (OSHA, SOX, EPA, DOT, FDA). Some industries have voluntary guidelines that suggest them as a best practice (OSHA VPP “Star” program, ISO quality, GAAP, IFRS, ITIL, to name a few). Organizations looking to become “World Class”, the best in their industry, demand them as part of defining their standard work. Company policies, six sigma discipline, or engineering standards determine the need for exacting consistency.

PROCEDURES PROTECT WORKERS

Workers who are following established procedures have more confidence that their actions are supported by management, the underlying statutes or regulations, and that they are following industry best practices. Using standard operating procedures regularly leads to fewer corrective actions. If there are legal ramifications to your work, then following your procedures reduces liabilities.

PROCEDURES PROTECT CUSTOMERS

Customers are entitled to dependable product or service delivery based on established and accepted measures — not on any one worker’s personal values, and not varying from one geographic area to another.

SOPs AND WORK INSTRUCTIONS

Some SOPs may have a two-tiered system that includes both procedures and Work Instructions. Your procedures provide a general view of the higher-level steps, whereas Work Instructions are significantly more detailed.

One advantage of a two-tiered system is that SOPs change less often, whereas **work instructions** may need to be changed or updated more frequently due to changes in organizational structure, equipment, or application software.

DESIGNING PROCEDURES

Procedures provide a description of who does what, when. An SOP characterizes relationships and control measures. It defines the roles and responsibilities to help workers “find themselves” in the business process. Procedures clarify different decision points and provide the necessary guidance on criteria to decide.

DOCUMENTS REQUIRED AT WAREHOUSE

Document	Description
Stock Requisition (SR)	Reserves quantities of stock items from an on-hand supply for later delivery. This reduces the available quantity. If items are not immediately available, they may be backordered and later filled by having the Backorder Servicing program run.
Pick and Issue (PI)	Schedules previously reserved items to be picked up for delivery and releases them from a reserved status. This function is performed by creating a Pick Ticket Report (IN80). From this report, the warehouse can determine the stock item, the quantity, and the bin number of the items that are to be picked up. It also creates the corresponding Issue Confirmation (CI) document.
Stock Issue Confirmation (CI)	Confirms to the system that previously reserved and released items have been issued from the warehouse to

	the buyer. The on-hand quantity of the warehouse for this item is reduced by the amount issued.
Over the Counter (OC)	Issues requested items directly from the on-hand quantity. As the items are issued immediately upon request, in effect, "over-the-counter," backordering is not allowed. Once an "Over the Counter" transaction is successfully completed, an Over the Counter Issued Report will be produced, identifying the requestor and the stock items issued. Any request for items unavailable for immediate issuance must be reserved through a Stock Requisition (SR). On-hand quantity is reduced by the amount issued.
Stock Return (SN)	Allows the original buyer to return previously issued items. At the option of the issuing warehouse, a return charge may be imposed.
Inventory Adjustment (IA)	Allows warehouse management to adjust quantities or unit values of on-hand items due to a change in on-hand quantities or unit costs. These adjustments alter inventory and cost of goods expense balances.
Physical Inventory Purchase Input (IP)	Allows warehouse management to adjust quantities of on-hand items due to a change in on-hand quantities at a specified unit costs. These adjustments alter inventory and cost of goods expense balances.
Stock Transfer Issue (TI)	Initiates the transfer of items from one warehouse to another.
Stock Transfer Receipt (TR)	Recognizes the receipt of transfer items by the receiving warehouse. On-hand quantities of receiving/issuing warehouses are adjusted.

TRANSPORT DOCUMENTS USED AT WAREHOUSE

When items are transported either domestically or internationally the delivery must be accompanied by the relevant documentation. The amount of documentation varies depending if the shipment is within the US or to another country.

As far as interstate transportation of goods in the US, there are three documents that are of greatest importance; the bill of lading, freight bill, and the Free On Board (FOB) terms of sale.

BILL OF LADING

The bill of lading is the most important document that is used in transporting goods. The legal definition of a bill of lading is a contract for the carriage of goods and a document of title to them.

It provides any and all information that the carrier will need to transport the items. It contains the shipment origin and the contract terms for the transportation and is required by a carrier before the shipment is taken.

The bill of lading should include the name and address of the consignor and consignee, and often it will have the routing instructions for the carrier. It will contain a description of the goods to be transported, the quantity for each of the commodities, and the commodity class and rate.

The bill of lading will contain the terms of the contract for the movement of goods by a common carrier. This is the contract between the shipper and the carrier to transport the goods on the bill of lading to the consignee, i.e. the buyer.

The bill of lading contract has nine terms;

1. **Common Carrier Liability** – the carrier is liable for loss and damage of the goods being transported, except if the goods were improperly packed by the shipper or if the goods themselves would be liable to a normal loss like through evaporation. The carrier is not liable for acts of God, public enemy or public authority.
2. **Delay in Transit** – the carrier cannot be held liable if the loss or damage is due to a delay in the transportation of the goods.
3. **Freight Not Accepted** – if the goods are not accepted within the time allocated, the carrier can store the goods at a cost to the owner.
4. **Extraordinary Value** – the carrier is not liable and does not have to carry items of extraordinary value that are not on the rated in the published classifications or tariffs unless a special agreement with the shipper has been negotiated.
5. **Explosives** – the carrier has to be given full written disclosure when they are shipping dangerous material, otherwise they are not liable for any losses.
6. **Recourse** – the carrier cannot make additional charges to the shipper after making a delivery.

7. **Substitute Bill of Lading** – if the bill of lading is a substitute or exchange for another bill of lading then the current bill of lading has to include all the clauses from previous documents.
8. **Alterations** – the carrier must note any changes or additions to ensure that they can be enforceable.
9. **Claims** – this clause specifies the details on how to file a claim against the shipper and the time period after delivery in which the claim will be accepted.

FREIGHT BILL

The freight bill is the carrier's invoice to the shipper for all the charges that the carrier has incurred.

The carrier's freight bill will include the details of the shipment, the items being shipped, the consignee, the origin, and destination, as well as total weight and total charges.

Some carriers can ask for prepayment from the shipper if the value of the items being shipped is less than the total expected freight charges. If the charges are not prepaid then the carrier can present a freight bill on collect. This implies that the carrier will present the freight bill on the day of delivery.

FOB TERMS OF SALE

Free on Board (FOB) terms of sales documents which party will be liable for the transportation costs, which party is in control of the movement of the goods, and when the title passes to the buyer.

If the FOB terms of sale indicate that it is FOB Delivered then this implies that the shipper will be responsible for all of the carrier's costs.

If the terms of sale show FOB Origin, then this means that the buyer will take the title for the goods when they are shipped and they will incur all the transportation costs.

REQUIRED MATERIAL FOR DOCUMENTATION AT WAREHOUSE

The material control cycle

The material cycle can be depicted as:



Picture 2.22: Material Required for Documentation Process

At each stage there should be documents or other procedures that allow control to be exercised.

Purchase requisition: there will normally be a purchase requisition note showing:

- Sequential document number
- Date of requisition
- Stock code
- Quantity needed
- Supplier
- Supplier's product code
- Signatures authorising the requisition

The purchase requisition notes are passed to the purchasing department where they will be examined and approved or queried. Sometimes, despite the supplier being entered on the purchase requisition, the purchasing department might ask several suppliers for quotations.

A purchase order is then raised (created). This will typically show:

- Our name, address and contact details
- Purchase order number
- Date
- Supplier's name and address
- Details of goods required: product codes, description, unit price and total price.
- Authorisation

The order will have at least two copies: one for the supplier one for the stores to inform them that a delivery is expected.

When goods are received, they will usually be accompanied by a **delivery note**. This will show the information that is on the purchase order, except for the value of the goods. Goods should not be accepted before checking to a copy of the order that they have, in fact, been ordered. One copy of the delivery note is signed and kept by the supplier. Usually the receiving company will create a standard **goods received note** from the delivery note. The goods will be stored in the warehouse and stock records on bin cards (see below) will be updated from the goods received note.

A **purchase invoice** showing the payment due will be received from the supplier, and before this is approved for crediting to the suppliers account and subsequent payment, it should be matched to the order and goods received note to ensure that the correct goods have been received.

When materials are needed for production a **materials requisition note** should be created requesting the release of material from the stores: part/material code, quantity, job number and so on. This should be signed by the person requesting the goods. Stock records will be updated as goods are issued.

There might be **production order** setting out goods and labor needed for the production of the goods ordered by customers.

As goods are produced they will be transferred from the production line to the finished goods store. Stock records there should be updated with goods description, quantities and costs.

Customer orders will initiate sales. From those, **dispatch (or delivery notes)** will be produced. These can be used as the basis for taking goods from stores, updating the bin card (see below) packing the goods and dispatching them. There will usually be three copies of the delivery note: two go with the goods and of those one stays with the customer and one is signed by the

customer and returned as proof of delivery receipt. One copy will stay in the dispatch department in case of later queries.

Central to the material control cycle is the recording of the amount of inventory as this will determine when goods need to be ordered and will also record the receipt and issue of goods.

In manual accounting systems bin cards are used (a bin is where a specific item of inventory is stored). The equivalent records are now usually held in computer systems. A typical bin card would look as follows:

Part number A 1234			Bin number/location A1284			
Description 30cm brackets						
Receipts			Issues			Balance
Date	Goods received note number	Quantity	Date	Requisition number	Quantity	
						b/f 100
15/1/2013	1235	200				300
			29/1/2013	1929	140	160
			3/2/2013	1955	120	20
10/2/2013	1384	500				520

Picture 2.23: Bin Card

This allows a continuous recording of stock quantities.

A particularly important figure to calculate is free inventory. This is

Free inventory = Quantity on hand plus units ordered less units allocated for use

The calculation of free inventory has the advantage of anticipating stock movements so that receipts and issues that are known about are considered when assessing the need to order.

To ensure that the inventory as recorded on the bin cards is accurate, companies should carry out periodic **stock counts** (sometimes called cycle counts) and correct the amounts on the bin cards. Some companies carry out one only stock count per year.

Activity

Activity 1: Prepare the list of required documents and the number of copies needed.

Material Required: Notebook, pen/pencil, drawing sheet, Colour pencil

Step by Step Procedure:

- Make a list of required documents and the number of copies needed.
- Mention the sources and work procedure
- Submit the sheet to the teacher

Check Your Progress

A. FILL IN THE BLANKS

1. The _____ is the most important document that is used in transporting goods.
2. The _____ is the carriers invoice to the shipper for all the charges that the carrier has incurred
3. _____ is terms of sales documents which party will be liable for the transportation costs
4. The _____ notes are passed to the purchasing department where they will be examined and approved or queried.
5. A _____ showing the payment due will be received from the supplier
6. _____ will initiate sales.

B. TRUE OR FALSE

1. The order will have at least two copies
2. Stock records will be updated as goods are issued.
3. Customer orders will initiate sales
4. The freight bill is the carriers invoice to the shipper for all the charges that the carrier has incurred.
5. the carrier must note any changes or additions to ensure that they can be enforceable.
6. The bill of lading should include the name and address of the consignor

C. WRITE THE FULL FORMS OF THE FOLLOWINGS

1. SOP

2. CTQ
3. GMP
4. FDA
5. ISO
6. SR
7. OC
8. IA
9. SN
10. STR

D. SHORT ANSWERS QUESTIONS

1. What process will you follow to take the print of inventory list from computer?
2. How can you improve your business' efficiency by using intranet?

E. CHECK YOUR PERFORMANCE

1. Prepare a document in a given situation.

PSSCIVE Draft Study Material ©

MODULE 3**OUTBOUND GOODS****Module Overview**

To start with, logistic is effective and efficient management of the flow of goods, included supply chain. Outbound logistic means the process have with movement and storage of goods and the information flows from production to consumer. It is very easy concept in whole logistic process as it is centered concept of two main components i.e. Storage and transportation.

Achieving optimum profit via outbound logistic is rely on using appropriate right strategy for the company. As goods are collected at warehouse, executives have to work on the distribution of goods to the final consumer. Thus, channel of distribution of outbound goods plays a vital role in whole logistic supply chain management. For the distribution purpose various types of sorting is doing at premises for better optimization of delivery process. Sometimes outbound logistics is final steps of delivery process. This module will help to students to aware the outbound logistic services.

Outbound logistic is from all point of view is very important as it totally impacts customer satisfaction. As the market scenario changes day by day need of customers are increases that create more competition in logistics.

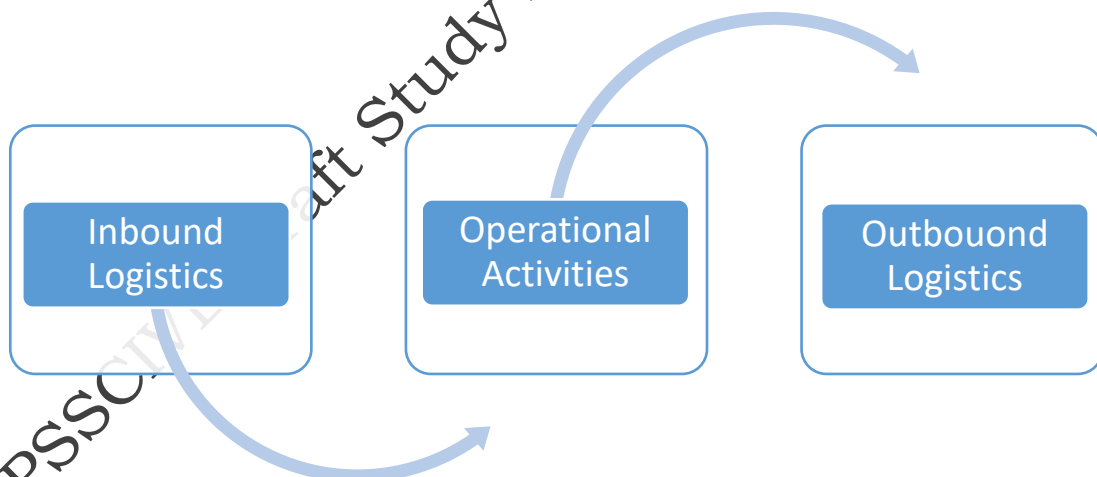


Figure 1: Outbound logistics

As discussed in the previous modules about inbound logistics, so it is quite easy to understand outbound logistics. Inbound and outbound logistics are interconnected terminology, whatever comes in the warehouse has to move out

from the warehouse or store area. In between this logistics there are lots of activities are going on. These activities are known as operational activities.

Inbound and outbound logistic activities are work together in the discipline of supply chain management, as seniors are intending to maximize the reliability, information, resources and efficiency of channel of distributions.

Learning Outcomes

After completing this module, you will be able to:

- Outline outbound goods;
- Explain distribution and sorting of outbound goods;
- Describe Outbound logistics services;
- Demonstrate the Testing outbound goods;

Module Structure

Session 1: Concept of Outbound Logistics

Session 2: Distribution and Sorting of Outbound Goods

Session 3: Advantages and Challenges of Outbound Logistic Services

Session 4: Inspection of Outbound Goods

Session 1: Concept of Outbound Logistics

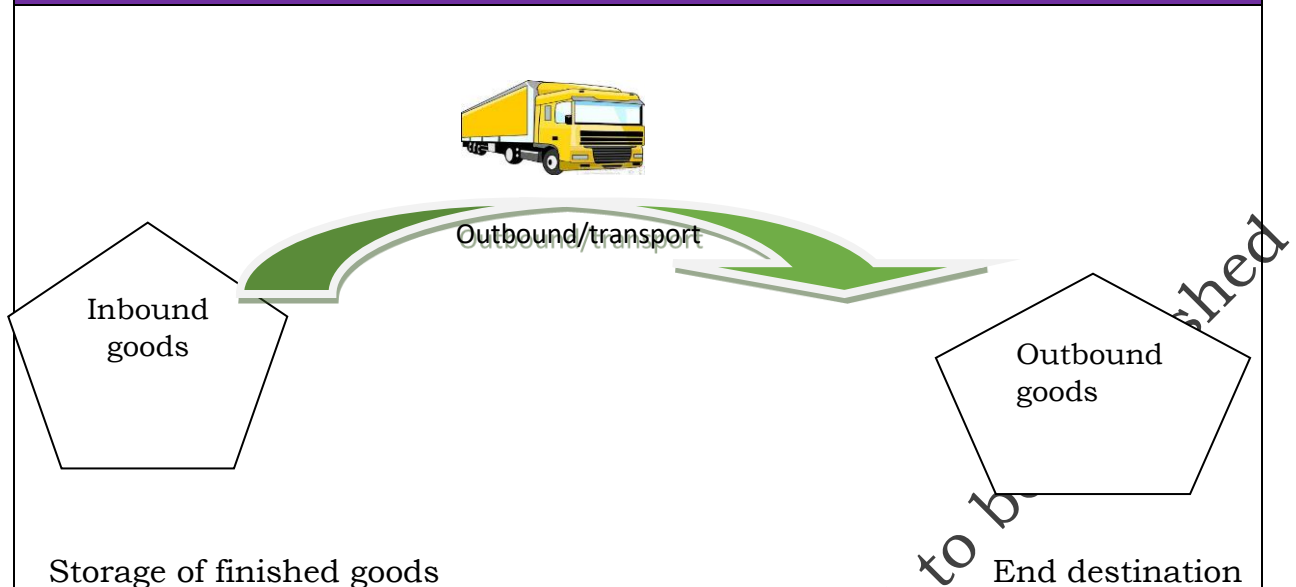


Fig 3.1: Outbound goods

Outbound logistic is made up of two words i.e. outbound and logistics. The generalized meaning of outbound is travelling of goods from a particular place to next destination. The place may be supplier warehouse, manufacturer place, finished goods warehouse or third-party warehouse etc. Logistics means detailed organization and implementation of complex activities. If both words combine together that actually means the process have with movement, storage of goods and information flows from end of the production process to delivery of goods to customer. It is very easy concept in whole logistic process as it is centered concepts of two main components i.e. Storage of finished goods and transportation.

The storage section refers to the area where finished goods kept safe and convenient. The storage of finished goods is may be factory, warehouse, and distributor so on. The goods can be perishable, fragile, and dangerous then it should be kept safely. The finished goods or product is always being ready to go outside to the customer at any point of time thus proper management of distribution is important.

The transportation section is more complex part of outbound logistics. If there is no transportation then there is no logistics. Thus it is mandatory to transfer the goods from one place to another in the most possible effective and efficient way. Transportation is differ with moment and other factors such as fuel cost, employee or team working, delays these all could be affect the efficient movement of goods. For example delaying in single shipment can cost the company many losses.

OBJECTIVES OF OUTBOUND LOGISTICS

As there are changes in the scenario of logistic industry, therefore industries are started to work under the different models. So there must be transparency from one point to another, to make certain that goods arrive at right time at right place.

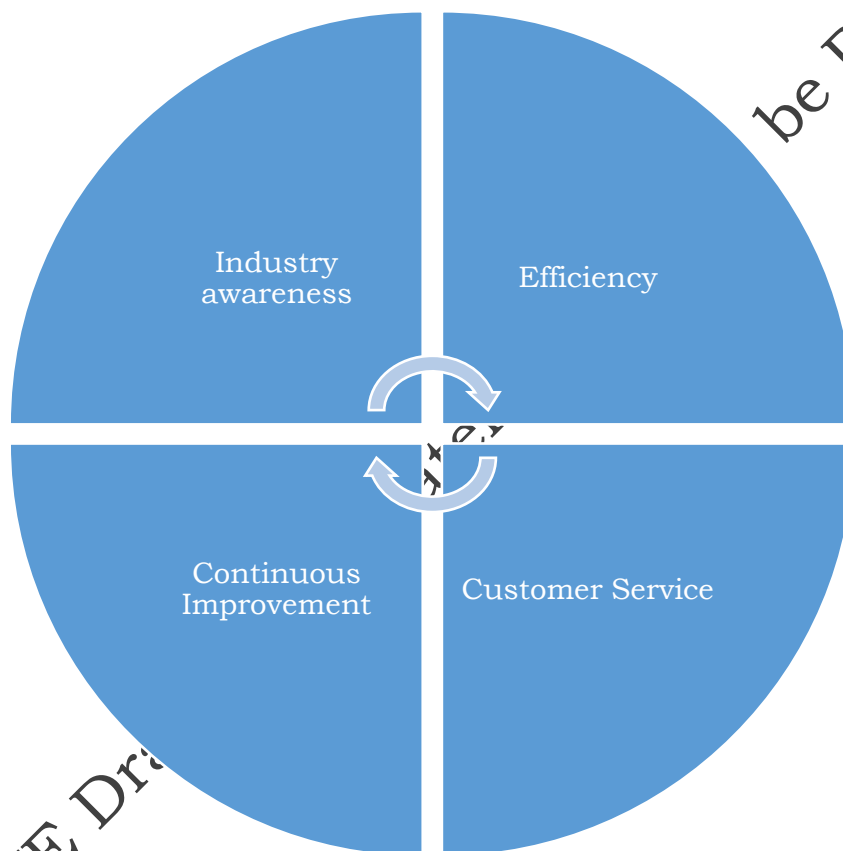


Figure 3.2: Objectives of Outbound logistics

Efficiency: The outbound logistic services is basically provided for the increasing the value of delivery of particular goods. For effective and efficient utilization of each and every element in whole logistic and supply chain is more crucial. These element may be-

- I. **Cost:** To reduce cost is primary goal for every logistic company. The cost may reduce in the transportation and warehousing.
- II. **Packaging:** The packaging affects overall performance of activities in logistic chain. As the packaging is activity of designing and producing the wrapper for the product.
- **Customer Services:** Customer service is very important for outbound logistics. It involves the ability to handle transportation activity. As logistic service providers an executive has to manage the need of customers at different geographical regions. The executive has also managed the feedback from the customer.
- **Continuous improvement:** A process of continue improvement over the services provided by logistic company to achieve the goals of company. Through the continuous improvement executives are try to find the various ways to reduce cost, eliminate inefficiencies.
- **Industry Awareness:** A logistic company has to earn quality services to gain an edge in the competitive logistic industry. The logistic industry can become more advancement in the technologies so that every outbound logistic company has to update with technologies time to time.

STORAGE OF OUTBOUND GOODS:

The optimization of warehouse or store area and management of flow of goods is key part of smooth flow of business activity. The arrangement of goods in warehouse or store area is according to daily sales order in the way of their inbound time frame. Consolidation is ideally suited for many orders to similar destinations or those goods which are in urgent nature.

Before the dispatch of goods the executives has to check accuracy of each parcel, packing note, and labeling on the parcels, load list etc. And then the orders are loaded on the delivery vehicles. The generlised way of storage is based on

- a. **LIFO:** Last In First Out (LIFO) means the most recent parcel to come into the warehouse and moved out first.
- b. **FIFO:** First In First Out (FIFO) means the first lot of stock that comes in the store area or warehouse is first that moves out directly to customers.

Process of Outbound Goods: The Outbound Goods Process is explaining in the following ways:

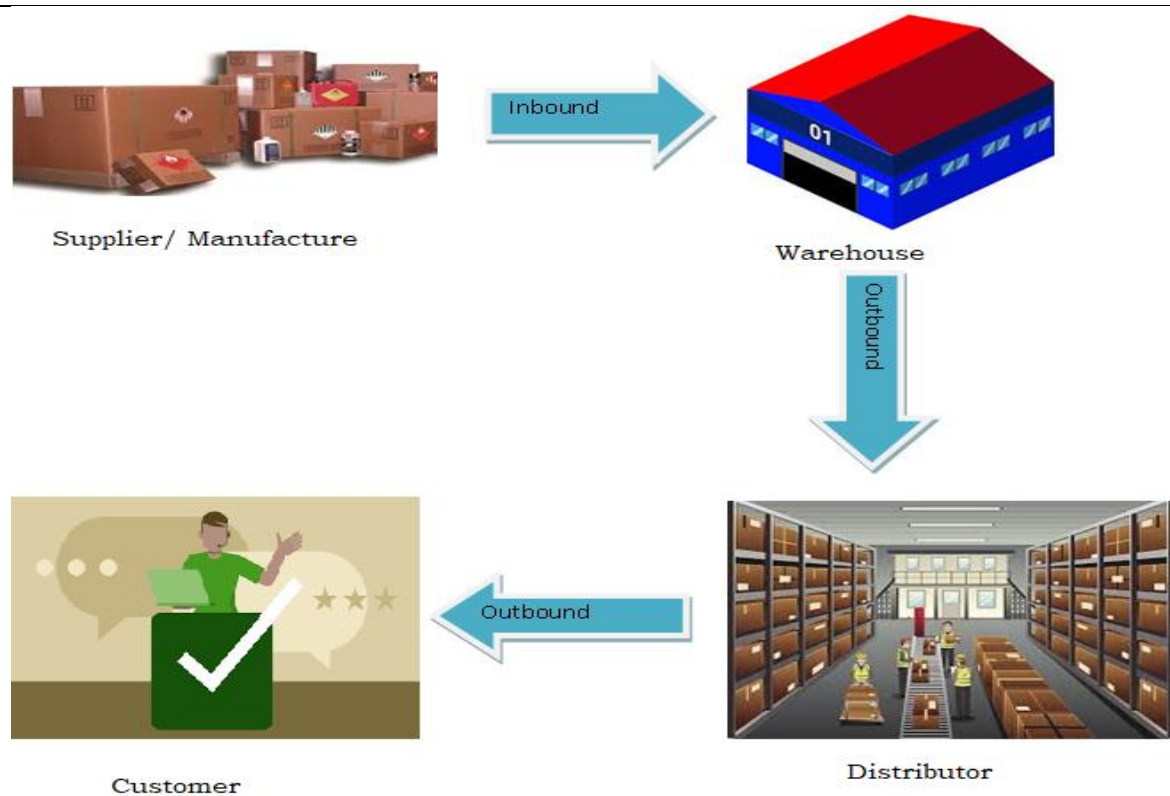


Fig 3.3: Outbound logistics

As the figure 3 suggests that in very simplest way that material received from supplier and stored in the warehouse that are inbound goods then it collects and store accordingly for outward movement then goods send to the distributor with the different operational activity is handled therein that are the outbound goods. Then outbound goods are being ready to dispatch process to customers.

1. The outbound goods process starts with the receiving of purchase order to defined or suitable vendor. The quantity, value in invoice, number etc are defined for transparency and accuracy. And then it is unloaded to warehouse or store area or distribution centre.
2. Thereafter the assistant will count packages of goods in accordance with quantity, number of packages, value in invoice etc.
3. And then Goods are bifurcate according to destination place or area, urgency of delivery of goods. Therefore, Goods are placed on proper designated area for outbound movement.
4. After this outbound distribution channel is selected. And the tracking of particular vehicle is also important part of outbound goods.
5. The Warehouse Document Assistant will check all the documents before delivery of goods such as Invoice, Packing List, Goods Receipt, Manual if any, and compare with Purchase order. The WDA will check the following points:
 - Name and address of customer

- Description of material
 - Number or quantity of material
 - Taxes and levies
 - Discounts on goods if any
 - Freight charges and freight term
 - Total quantity and amount
6. All the formalities are completed then goods are ready to move for dispatch to final destination or end customer.
 7. For delivery optimization effective execution of planning of outbound goods is necessary.

After this session the learner will be able to understand concept of outbound logistics.

Activities

Activity 1: Store outbound Goods in Given Situation

Materials Required: Pen, Pencil, Eraser, Notebook, situation (provided by teacher), chart paper.

Step by step procedure:

1. The teacher will first discuss the session the students.
2. The teacher has to give situation according to availability of resources at premises.
3. Then teacher will provide situation to student and discuss it in the class.
4. The students will brainstorm the situation.
5. All students have to discuss the situation with maintaining class rules.
6. The students will write down their findings and lay out in their notebook.
7. The student will share their finding in the class and discuss them.
8. The students will note down key points and summarize with help of Teacher.
9. They have to submit the finalization to teacher.

Activity 2: Chart preparation on process of outbound logistics

Material required: Drawing sheet, pen/pencil and sketch pen

Step by step procedure:

1. Firstly read about outbound logistics
2. Think about the process of outbound

3. Make a group of students according to class strength.
4. Then group has to draw chart which contains various stages of outbound
5. Write the names of each stage in bold font style
6. Try to write examples of each stage
7. After completing chart each group has to display the chart in class
8. The best charts have to submit in the library.

Activity 3: Make a report on objectives of outbound goods

Material required: Notepad, pen / pencil, Sketch pen

Step by step procedure:

1. Firstly read the about outbound goods
2. Make a listing only names of major objectives
3. It can be search out different objectives from internet or referring books
4. Try to take example of each objective with the pictures
5. Explain the objective in short
6. Then make a short report on the objective of outbound logistic
7. In the end conclude the topic.

Check Your Progress

A. FILL IN THE BLANKS

1. The _____ of particular vehicle is important part of outbound goods because it will provide information of delivery of goods to the customers.
2. _____ is ideally suited for many orders to similar destinations or those goods which are in urgent nature.
3. Before the dispatch of goods, the executives have to check _____ of each parcel packing note, and labelling on the parcels, load list etc.
4. The optimization of warehouse or store area and management of flow of goods is key part of _____ of business activity.
5. The quantity, value in invoice, number etc are defined for _____ and accuracy.

B. TRUE/FALSE

1. Last In First Out (LIFO) is the most recent parcel to come into the warehouse and moved out first.

2. For delivery optimization effective execution of planning of outbound goods is necessary.
3. The outbound logistic services is not provided for the increasing the efficiency of particular goods.
4. The arrangement of goods in warehouse or store area is not according to daily sales order in the way of their inbound time frame.
5. The outbound goods process do not starts with the receiving of purchase order from warehouse.

C. MATCH THE COLUMN A TO B

1	Delivery Optimization	A	Performance improvement
2	Received goods	B	First In First Out
3	Industry Awareness	C	Wrapper of the product
4	FIFO	D	Earn quality services
5	Packaging	E	With educate and training

D. SHORT ANSWER QUESTIONS

1. Discuss the concept of Outbound logistic?
2. What are the objectives of outbound logistics?
4. Explain the process of outbound goods?

E. CHECK YOUR PERFORMANCE

1. Demonstrate the outbound goods in store area?
2. Handle particular situation of warehouse:
 - a.) LIFO
 - b.) FIFO

Session 2: Distribution and Sorting of Outbound Goods

Outbound sorting: The sorting is started after collection of certain quantity of goods. In the warehouse there are various types of goods are kept so documentation assistants has to sort out the goods according to following ways:

- Type of Material- based on size, volume, weight etc.

- Category of Material – Dangerous or Non-Hazardous Product, Automobile or Engineering Product etc.
- Size of Material – Large, bulky, quantity etc.
- Nature of Material - Fragile, Flammable, Corrosive etc.

Process of Sorting of Outbound Goods:

- Goods are received at bay from defined vendor or supplier.
- The warehouse Documentation Assistant or Checker will check and inspect the goods at the warehouse.
- The WDA will verify the documents received and compare with Purchase Order for outbound movement.
- After successful inspection of product, details such as label, product description etc is checked then goods are sorted.
- The sorting is done according to above mention ways.
- Few companies have designated areas specified for material and as such sorting of Outbound material is done
- According to delivery schedule, geographical location of the customer and also depend upon the urgency of product, the goods are loaded in the delivery vans for delivery purpose.

PHASES OF OUTBOUND LOGISTICS

Every organization has to follow the various phases in the outbound logistic. These phases are as follows:

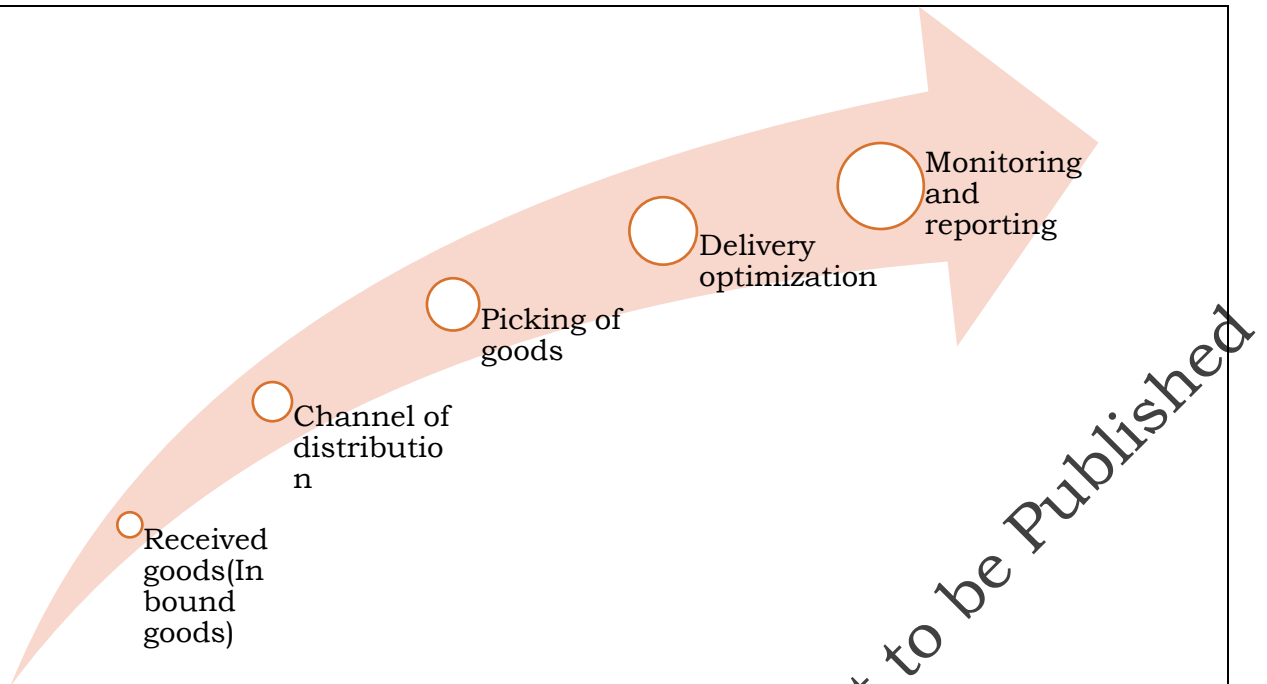


Figure 3.4 Phases of outbound logistics

1. Received goods (Inbound goods): The Receiver receives the material at the warehouse and issues Goods Receipt on upon inspection and clearance of material. The Warehouse Checker will inspect the material for any damage, Pilferage or discrepancy. Thereafter assistance records the goods through the barcodes or any other technology.

The Warehouse Clerks keeps the material at designated storage area for further use or for availability of the user and the material are kept in such a way that outbound movement is easily handled.

2. Outbound distribution channel: The channels of distributions are service providers that deliver the goods to final customer. The channel of distributor may store the goods, promotes and make arrangement for sale purpose. As outbound logistic has to choose the best channel of distributor to maximize revenue.

The Outbound distribution channel is pathway of flow of goods and information from warehouse/ wholesaler to retailer or end customer. The wholesaler is kind of distributor who acquire finished goods from manufacturer and then move out the goods to retailers or customers. The channels are network of different types of single businesses that need to fulfil the demand of warehouse, distributors as well as customer. In short it can be say that channel of distributors are works as intermediate between manufacturers to end customers.

Aim of channel of distribution: The Major aims for effective working of channel of distribution are as:

- Prepare: First of all for better efficiency train to drivers to improve safety of goods in between transit and also make sure the vehicle is in proper working condition, so that cant harm to environment.
- Optimise: Optimization of resources are important each part of logistics as it impact the overall efficiency. The streamline movement is significant so that empty or quite less load of goods on delivery vehicles is inefficient and costly.
- Explore: As much as channel of distribution explores it creates wide network for movement. Through the exploring logistic industry can improve the performance.

Structure of outbound distribution channel: The structure of channel of distributor is varying from organisation to organisation. It is also depend upon the nature of product. The fig 3.5 shows the basic structure of channel of distributor. As the goods received from manufacturer to warehouse then it moves to various other channels such as distributor, wholesaler, retailer and customer. Sometimes distributors are also known as vendors.

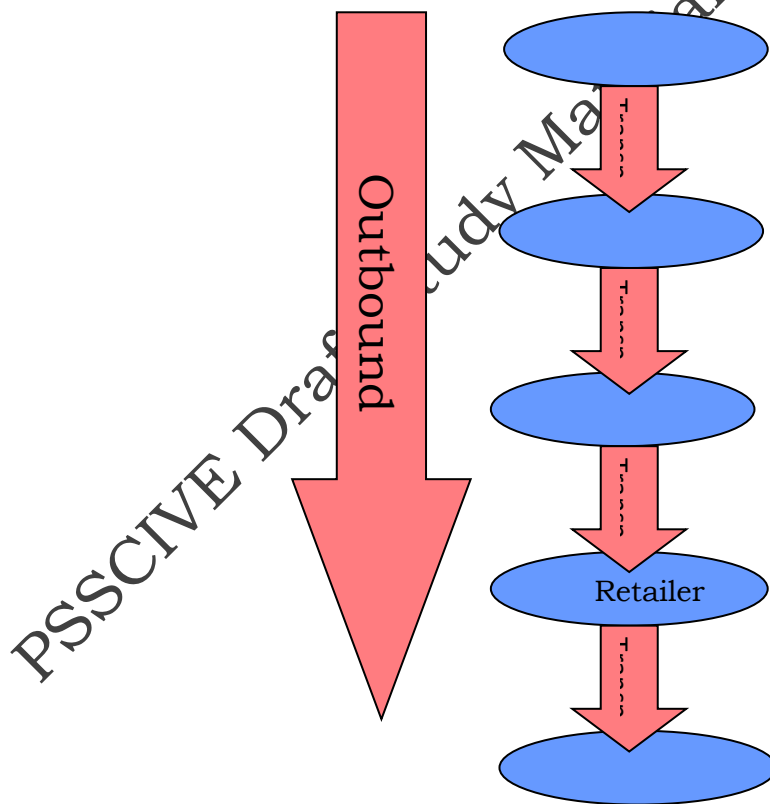


Fig 3.5: Structure of outbound distribution channel

ADVANTAGES OF OUTBOUND DISTRIBUTION CHANNEL OF GOODS

For every business organisation choosing right channel of distribution is important as all the delivery activities depend upon channel. These may be sort of intermediates who share the burden of manufacturer or supplier.

- a. **Cost saving:** The Distribution assistants are specialised so that they try to reduce the expenses at every stages of channel. They seek to minimize the cost.
- b. **Reduces the time:** With the cost time is also one of the parameters of channel of distribution. As all the assistants are highly efficient in the processing of delivery then at some extent it reduces the time at every stage.
- c. **Valuable information:** As the channel of distributor is aware to handle the goods in proper way so that they provide proper information on the packaging for example if the goods are fragile then they put the symbols like Fig 2.



Picture 3.1: Fragile item

Source: https://www.google.co.in/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwjrrtPg6dbWAhVDvo8KHZLbA_kQjRwIBw&url=http%3A%2F%2Fwww.clker.com%2Fclipart-fragile1.html&psig=AOvVaw30bvQunZsGYxyKYJgdqs-N&ust=1507201631086724

- d. **Revenue generates:** Channel of distributors generate the profits for manufacturer or suppliers as they are act as intermediates and also

share the burden of work. They increase the effectiveness of outbound logistics.

3. Picking of outbound goods: This is crucial stage because overall delivery process is totally depends upon the picking activity for outbound goods. The picking of goods is easier and cost effective so that productivity can be maximized. Picking of goods can be-

- a) Single order picking: The picking may be single order and multi batch order picking. The Single order is placed for shipping and priority wise shipment. It will increase accuracy.
- b) Multi batch order: The multi batch order is useful for lengthy distances. By picking multiple orders at same time for the same routes will maximize the overall profitability.
- c) Zone picking: Warehouse Assistants collects all the goods at certain area in warehouse so that sorting can be easily done.
- d) Consolidation: It is ideally suited for many orders to similar destinations and for those goods which are in urgent nature

4. Delivery Optimization: This is another very important part of outbound logistics. Delivery optimization can be done by

- Cost and time effective management of outbound goods
- Effective execution of planning of outbound goods
- With educate and training given to employees

5. Monitoring and reporting: These are two main perspectives for the overall performance improvement. The tracking of particular vehicle is important part of outbound goods because it will provide information of delivery of goods to the customers.

After this session the learner will be able to understand Phases of outbound logistics.

Activities

Activity 1: Sort Outbound Goods as per channel of distribution in Given Situation

Materials Required: Pen, Pencil, Eraser, Notebook, Case study (provided by teacher)

Step by step procedure:

1. The Teacher will first discuss the session the students.
2. The Teacher will provide Case study to student and discuss it in the class.

3. The students will brainstorm the case study.
4. The students will write down their findings and lay out in their notebook.
5. The student will share their finding in the class and discuss.
6. The students will note down best of the class findings and summarize with help of Teacher.
7. They will submit their final report to teacher.

Activity 2: Discussion on outbound distribution channel

Material required: Pen, Pencil, Eraser, Notebook

Step by step procedure:

- Start the session by providing general information on distribution channel
- Conduct the lecture clearly so that they will be ready for discussion
- Discuss basic of distribution channel
- Try to give latest examples from magazines/journals/web.
- Ask variety of question with the students
- Involve all students in the class not only the active ones by sharing interesting information about the topic and asking their participation.
- Conclude the lecture covering all the points and give the students some key points from the session.
- Ask Students different types of questions from the session.

Check Your Progress

A. FILL IN THE BLANKS

1. The picking of goods is easier and cost effective so that productivity can be _____
2. For every business organisation choosing _____ of distribution is important as all the delivery activities depend upon channel.
3. The _____ channel is pathway of flow of goods and information from warehouse/ wholesaler to retailer and from retailer to end customer.
4. The _____ will verify the documents received and compare with Purchase Order for outbound movement.
5. _____ is area warehouse Assistants collects all the goods at certain area so that sorting can be easily done.

B. TRUE/FALSE

1. Is the sorting is started after collection and picking of certain quantity of goods.

2. Consolidation does not suited for many orders to similar destinations and for those goods which are in urgent nature.
3. The picking of goods is easier and cost effective so that productivity can be maximized.
4. Optimization of resources is not important in each part of logistics as it impact the overall efficiency.
5. The channel of distribution explores and it creates wide network for movement.

C. Match the column A to B

1	Delivery Optimization	A	Performance improvement
2	Monitoring	B	Hazardous goods
3	Zone picking	C	Distributor
4	Category of Material	D	Specific area of warehouse
5	Outbound distribution channel	E	With educate and training

D. SHORT ANSWER QUESTIONS

1. Enlist the Phases of Outbound logistic?
2. Discuss the Phases of Outbound logistic?
3. What is the outbound distribution channel?
4. Explain the Sorting of outbound goods?

CHECK YOUR PERFORMANCE

1. Demonstrate the structure of outbound distribution channel?
2. Handle particular situation of warehouse:
 - a.) Sorting of generalised goods
 - b.) picking of outbound goods

Session 3: Advantages and Challenges of Outbound Logistic Services

OUTBOUND LOGISTIC SERVICES

The major focus of outbound logistic services is on distribution of goods. These services is totally depend upon the “7 R” these R are as shown in the below fig 3.6

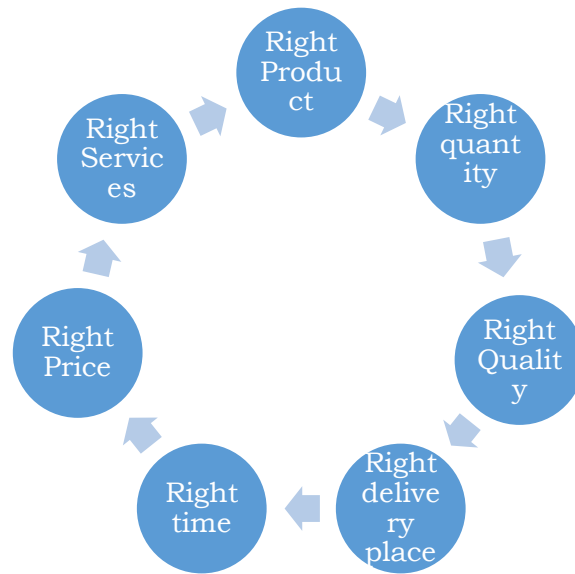


Figure 3.6: Seven Rights (7-R)for outbound logistics

Today's customers are highly active and they want better services. Every organization tries to fulfill the requirements of customer. Thus these seven Rights are perfectly delivering the goods to customer. The Outbound logistic services deliver the Right product in right quality with right quantity at right delivery place on right time with right source at right price with the right services.

- a) Right product and Right services: Every logistic organization has knowledge of type of product and services so that they must know various situations of handling and transporting product at the time outbound movement. That will manage or reduce the time and utilize resources.
- b) Right quantity and right quality: To know the right quantity and right quality of product is also one of the elements of outbound logistic management activity. For example, if single quantity is missed from the consignment then customer can file complaint against logistic company. So the proper handling of goods in transit is very much crucial.
- c) Right delivery Place: Right product has to deliver at right customer. For this they have proper channels and having proper mechanism of delivery system.
- d) Right time: In today's scenario customer is more concern for the delivery schedule that is on time delivery of consignment or product is important. Every outbound logistic organization has system of tracking so that customer is ensuring that products or consignment deliver on time.
- e) Right price: here price is amount is to be charge for product and services rendered by customer. The price of product should be like that logistic company manages income and expenses.

CHALLENGES FOR OUTBOUND LOGISTICS

In today's phase of global economies for the facilitation of trade outbound logistics is important factor. The outbound logistic is backbone of the economy. As overall trade is depend upon the delivery of goods or consignment to the end destination. So there are many hurdles which affect the performance of outbound logistics and that create challenges for logistic sectors. These challenges are as follows:

1. **Infrastructure:** The biggest challenge faced by organization is Infrastructure. The issues behind this is road condition, network of intermodal transport like railway, inland river transport etc.
2. **Technology:** It is another challenge for logistics, in current scenario technology is change very fast. So every organization has to update with current environment. Say for example decade back no one is much aware about power point presentation but now a days it is part of all curriculum and office activities.
3. **Lack of human resource:** As all know that without human being no organization will survive. Shortage of executives or assistants at warehouse or logistic organisation find as key challenge in the outbound logistic services. And in the outbound logistics require expertise in each stage of whole services of outbound logistic. So that efficient and effective work can be handle at every organization.
4. **Consumer taste and preferences:** Today's market is very much volatile. The demand of customers is increases rapidly thus the taste and preferences are changes uncertainly.
5. **Regulation:** In the transportation process the rules and regulation has changed with one city to another. Then the duties and taxes are varies from national, regional and local authorities.

ADVANTAGES OF OUTBOUND LOGISTICS

1. **Centrally coordinate:** All the outbound logistic activity is centrally coordinated. As customer satisfaction is total depend on delivery of product. Now a day's warehouses are centrally located due to which they can connect large wider network. Thus they can reach to customer in shorter duration.
2. **Growth of organisation:** If customer is not satisfied with delivery of goods then growth of logistics is not possible. For the growth every organisation has to focus on seven Rights fig 1.
3. **Control over the transportation:** The Organization or buyer has full control over the transportation of the material. The Organization can keep tight tracking on the flow of material, thereby, lessening the supply chain risk.

4. Reduce delay shipment: Due to channel of distributors it is easy to deliver the goods on time to customers. If the proper management is going on in whole process then it also reduces the possibility of delaying in shipment.
5. Enhance efficiencies: The outbound logistic services increase the value of delivery of particular goods. The assistants understand the importance of whole process then it enhances performance of outbound logistics.
6. Wider Network: In the outbound logistics number of channel of distributors are involved thus they create wider network for geographical area.

After this session the learner will be able to understand Advantages and challenges of outbound logistics.

Activities

Activity 1: Chart preparation on outbound logistics services

Material required: Drawing sheet, pen/pencil and sketch pen

Step by step procedure

1. Firstly read about outbound logistics
2. Think about the outbound logistic services
3. Make a group of students according to class strength.
4. Then group has to draw chart which contains various stages of outbound logistics services
5. Write the names of each stage in bold font style
6. Try to write examples of each stage
7. After completing chart each group has to display the chart in class
8. The best charts have to submit in the library.

Activity 2: Discussion on challenges of outbound goods

Material required: Notepad, pen /pencil, Sketch pen

Step by step procedure:

1. Firstly read the about outbound goods
2. Make a listing only names of major challenges
3. It can be search out different challenges from internet or referring books
4. Try to take example of each challenge with the pictures
5. Explain the objective in short

6. Then make a short report on the challenges of outbound logistic
7. In the end conclude the topic.

Check Your Progress

A. FILL IN THE BLANKS

1. In the outbound logistics number of channel of distributors are involved thus they create _____ for geographical area.
2. If the proper management is going on in whole process then it also reduces the possibility of _____ in shipment.
3. All the outbound logistic activity is centrally _____.
4. The demand of customers is increases rapidly thus the _____ are changes uncertainly.
5. There are many hurdles which affect the performance of outbound logistics and that create _____ for logistic sectors.

B. TRUE/FALSE

1. The Organization or buyer has full control over the transportation of the material.
2. In the transportation process the rules and regulation never changed with one city to another.
3. Shortage of executives or assistants at warehouse or logistic organisation find as key challenge in the outbound logistic services.
4. Every logistic organization has knowledge of type of product and services so that they must know various situations of handling and transporting product at the time outbound movement.
5. The major focus of outbound logistic services is not on distribution of goods.

C. MATCH THE COLUMN A TO B

1	Wider network	A	Regulation
2	duties and taxes	B	Right product and service
3	road condition	C	Geographical area
4	Right price	D	Infrastructure
5	7 R	E	Income and expense

D. SHORT ANSWER QUESTIONS

1. Discuss the Challenges of Outbound logistic?
2. What are the advantages of outbound logistics?
4. Explain the Outbound logistic services?

E. CHECK YOUR PERFORMANCE

1. Demonstrate the challenges of outbound goods in store area.
2. Handle particular situation in warehouse of outbound logistic services.

Session 4: Inspection of Outbound Goods

LAYOUT OF OUTBOUND INSPECTION

The receiving of goods from manufacturer/supplier/vendor is clearly most crucial component of warehouse process. In the general sense inspection means the examination of goods that are proper for outbound movement. In the Inspection of outbound goods whatever product is delivered to customer is always in correct quantity and in perfect quality as mention in the purchased order. The inspection of outbound goods is final step of logistic supply chain management.

Generalized Layout for outbound Inspection

S.no	Department	Responsibility	Main process	Output
1.	Manufacturer or Warehouse or wholesaler	Inbound Production plan	Make Inbound receiving schedule	Check list and packing note
2.	Planning Department of warehousing	Delivery schedule	Prepare goods for outbound	packing note and delivery schedule
3.	Quality checker for Packaging	Checker/Inspector	Packing and packaging	Inspection Record

4.	Quality checker for Packaging	Checker/Inspector	Qualified or not	Qualified Certificate (if approved), Again repair (if not approved)
5.	Again Repair/Rework	Packaging department	Qualified	Qualified Certificate
6.	Dispatch department	Loader	Loading of goods	Approval for ready for dispatch

1. Manufacturer first of all make inbound goods receiving schedule with inbound production planning after this the output is mention in the checklist and packing note.
2. The planning department of warehousing prepare the goods for outbound and they make delivery schedule for outbound movement with packing note and schedule of movement of vehicle.
3. Now the quality checker or inspector check the overall packing and packaging
4. The inspector or checker approve the packing and packaging of goods and write a report on inspection. Then checker issue the qualified certificate. If it is not approve then it moves towards the packaging department for repair and rework or if there is damage in the product then it is kept aside till all the process is settle down.
5. And after taking all approval from dispatch department stuffing of goods started by loader.

INSPECTION CHECKLIST FOR OUTBOUND GOODS

Before dispatching the goods from the particular warehouse the documentation assistant has to check the following things:

S.No	Title	Yes	No	Observation
1	All documents are received at the time of inbound shipment			
2	All items are accordance with invoicing			
3	Don't move the damaged package to another location till all the process is settle			
4	Are complete identification of goods in the shipment			
5	Are the goods or items are checked with description, quantity,			
6	Are outbound goods are manifested			
7	Are goods are being properly handled			
8	If the goods are perishable/refrigerated then refrigeration switch turn on and was container cold			
9	Are the doors of container/truck properly closed			
10	Are transporter promptly billed at the completion of loading			

FACTORS AFFECTING MOVEMENT OF OUTBOUND GOODS

The factor affects the overall performance of delivery. These are depends upon the geographical area i.e. distance, transport infrastructure and availability of related services. Some of the basic factors which affect the outbound movement are

- Transportation: This is important factor which affect the movement. And the different element in this are road condition, network of intermodal transport like railway, inland river transport etc.
- Risk: In the transit if goods are damage or lost then there is risk associated with outbound movement.

- **Documentation:** If the documents are complex then it may create problem in understanding of executives or assistants.
- **Communication:** The communication should be proper between all the channels. If there is lack of communication then it affects the performance.
- **Delivery schedule:** Whole outbound movement is totally depends upon the delivery schedule. Like which route is to be followed, departure time, halt time in transit.
- **Inspection:** It is also important factor because if the inspection is not on proper time schedule then there is delay in the dispatching process.

After this session the learner will be able to understand inspection process and factors which affect the outbound movement.

Activity

Activity 1: Inspect the outbound Goods in Given Situation

Materials Required: Pen, Pencil, Eraser, Notebook, situation (provided by teacher), chart paper.

Step by step procedure:

1. The teacher will first discuss the session the students.
2. The teacher has to give situation according to availability of resources at premises.
3. Then teacher will provide situation to student and discuss it in the class.
4. The students will brainstorm the situation.
5. All students have to discuss the situation with maintaining class rules.
6. The students will write down their findings and lay out in their notebook.
7. The student will share their finding in the class and discuss them.
8. The students will note down key points and summarize with help of Teacher.
9. They have to submit the finalization to teacher.

Activity 2 : Chart preparation on inspection process of outbound goods

Material required: Drawing sheet, pen/pencil and sketch pen

Step by step procedure:

1. Firstly read about outbound logistics
2. Think about the inspection process of outbound
3. Make a group of students according to class strength.
4. Then group has to draw chart which contains various stages of outbound
5. Write the names of each stage in bold font style
6. Try to write examples of each stage
7. After completing chart each group has to display the chart in class
8. The best charts have to submit in the library.

Check Your Progress

A. FILL IN THE BLANKS

1. In the transit if goods are damage or lost then there is _____ associated with outbound movement.
2. Whole outbound movement is totally depends upon the _____.
3. The factor affects the overall _____ of delivery.
4. The _____ of warehousing prepare the goods for outbound and they make delivery schedule for outbound movement with packing note and schedule of movement of vehicle.
5. Inspection means the _____ of goods that are proper for outbound movement.

B. TRUE/FALSE

1. The inspector or checker approve the packing and packaging of goods and write a report on inspection.
2. Manufacturer first of all make inbound goods receiving schedule with inbound production planning after this the output never mention in the checklist and packing note.
3. In the Inspection of outbound goods whatever product is delivered to customer is always not in correct quantity and in perfect quality as mention in the purchased order.
4. In the transit if goods are damage or lost then there is risk associated with outbound movement.

5. The inspection is not on proper time schedule then there is delay in the dispatching process.

C. MATCH THE COLUMN A TO B

1	Risk	A	Route
2	Delivery schedule	B	Outbound movement
3	Inspector/checker	C	Channels of distribution
4	Communication	D	Examination
5	Inspection means	E	Qualified certificate

D. SHORT ANSWER QUESTIONS

1. Discuss the layout of inspection process of Outbound logistic?
2. What are the factors affecting the outbound logistics?

E. CHECK YOUR PERFORMANCE

1. Demonstrate the inspection process in outbound goods in store area?
2. Handle particular situation of warehouse:
 - a.) prepare checklist
 - b.) enlist the factors affecting movement of goods

MODULE 4**OUTBOUND DOCUMENTATION****Module Overview**

When materials are transported either domestically (Interstate/Intrastate) or internationally the delivery of items/goods must be accompanied by the relevant documentation. The type and number of documentation varies depending if the shipment is transported within state (intrastate), within country but to other states (Interstate) or transported cross border (International). The types of documents determined based on its mode of movement from one place to another.

Outbound logistics is defined by the Council of Supply Chain Management Professionals as "the process related to the movement and storage of products from the end of the production line to the end user," and it plays a critical role in a supplier's overall customer relationship management process. Retailers hold their suppliers to very stringent product delivery standards. Failure by a supplier to provide reliable service to its retail customers can result in significant financial penalties and even the delisting (i.e., the elimination) of a supplier's products from a retailer's active product portfolio. Thus, outbound logistics performance represents a major factor in a retailer's decision whether or not to stock a supplier's products, and therefore, also represents an important determinant of a supplier's supply chain and business success.

A documentation assistant needs to be aware of the complete set of documentation requirement along with the various aspects to be able to design processes and documentation control mechanisms. Errors in documentation will lead to financial damage, delays in delivery and performance that is what every company aims to avoid.

Documentation is a process that involves the systematic interaction of people, events and documents to create the records of the organization corporation.

On this knowledge and skills the learner will have an idea of the outbound documentation.

- Describe documents, state their characteristics and importance.
- Elaborate the documentation process and its need.
- Discuss the set of documents required in outbound consignment.

- Describe various forms and permit of the outbound consignment.
- Discuss significance of correct permits/documents.
- Issues in documentation for transportation of goods.
- How to resolve documentation issues.
- Necessary measures while documentation.

To provide knowledge and skills on these aspects this module is divided in four sessions,

Learning Outcomes

After completing this module, you will be able to:

- Identify the required document;
- Prepare documentation for outbound consignments;
- Evaluate documentation for outbound consignments;
- Resolve issues in Documentation;

Module Structure

Session 1: Document and Documenting Process

Session 2: Procedure for Document Preparation

Session 3: Prioritizing Activities

Session 4: Resolve Issue in Documentation

Session 1: Document and Documenting Process

MEANING OF DOCUMENTS

A piece of written, printed, or electronically generated matter that provides information or evidence or serves as an official record, is called document.

A document is an interdependent, interrelated, set of documents, each with a define purpose and a consistent format.

- The information provided by a creator, which provides enough information to establish basis, history and context and to enable its use by others.

- It needs to be sufficiently detailed to allow the data creator to use the material in future, when the data creation process has started to fade from memory.
- It also needs to be comprehensive enough to enable others to explore the resource fully, and detailed enough to allow some one who has not been involved in the data creation process to understand the data collection and the process by which it was created.

TYPES OF DOCUMENTS

The types of documents, number of documents and the level of detail in the document varies from company to company depending on the following:

- The types of product (Its classification of risk)
- The unique nature of the product, the product delivery system or the manufacturing process.
- The size of the company.
- The education and training of the employees
- How much the company does (develops, manufactures, packages, distributes products)

Following are some example of documents:

- Sales invoices - documents that states a commitment from the seller to sell goods to the buyer at specified prices and terms.
- Agreements/contracts - a negotiated and typically legally binding arrangement between parties as to a course of action.
- Wills & Deeds - a legal document that is signed and delivered, especially one regarding the ownership of property or legal rights.
- Product specifications - A **Product Specification** is a document that provides critical defining information about a **product** and can include identification of the manufacturer.
- Certificates - an official classification awarded to a cinema film by a board of censors indicating its suitability for a particular age group.
- License - permit (someone) to do something.
- Newspaper issues - a printed publication (usually issued daily or weekly) consisting of folded un-stapled sheets and containing news, articles, advertisements, and correspondence.

- Executive orders - a rule or order issued by the president to an executive branch of the government and having the force of law.
- Warrant - a document issued by a legal or government official authorizing the police or another body to make an arrest, search premises, or carry out some other action relating to the administration of justice.
- Identity card - a card carrying the holder's photograph, name, date of birth, and other personal details, serving as official proof of their identity.'
- Leaflets - printed sheet of paper containing information or advertising and usually distributed free.
- Notices - notification or warning of something, especially to allow preparations to be made. Etc.

REQUIREMENTS OF DOCUMENTS

In transportation the document is required to convey information about cargo/goods/material that is being transported. Also it is required as a proof that the product has been developed and produced. It is safe effective and fit for its intended use. Quality characteristics are also established in the documents, documents declares product standards and describe how to monitor, test and judge for compliance with these standards. The document also assure that quality standards are consistently met, communicate these standards to all who interact with the product.

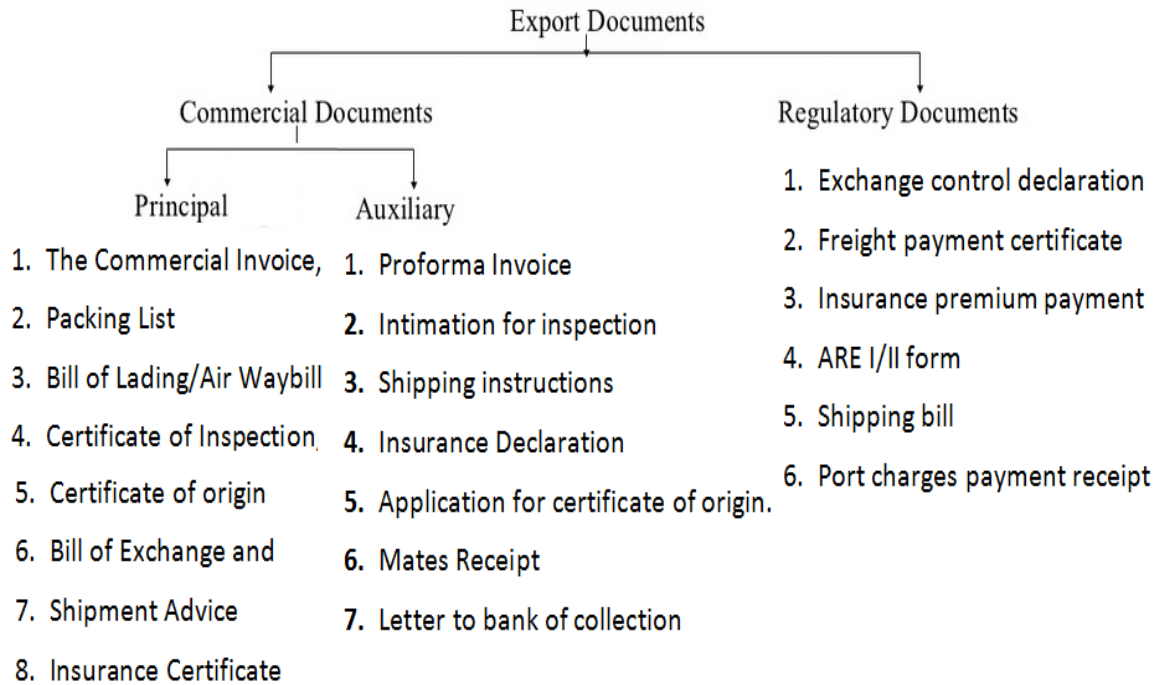
(i) Documents required in Interstate consignment

1. Four copies of invoice (1 original + 3 copies).
2. TIN no. and the CST no. of the consignor and consignee are mandatory where applicable. Consignor and consignee are responsible to provide active TIN no. (GST No. has replaced TIN/CST from 1st July 2017)
3. Shipments consigned to individuals who do not have CST & TIN nos., a declaration from the consignee that the goods are not for sale and for personal consumption apart from other conditions as laid down in respective States VAT Regulations. In all states where VAT is implemented TIN number in place of LST No. is a must.

(ii) Documents required in Export consignments

There are many documents involved in international trade, such as commercial documents, financial documents, transport documents, insurance documents and other international trade related documents. In processing the export consignment, documentation may be executed in up to four contracts: the export sales contract, the contract of carriage, the

contract of finance and the contract of cargo insurance. It is therefore important to understand the role of each document and its requirements in international trade.



Picture 4.1 Export Documents

(iii) Commercial Documents

- a. **Commercial Invoice** - A formal demand note for payment issued by the exporter to the importer for goods sold under a sales contract. It should give details of the goods sold, payment terms and trade terms. It is also used for the customs clearance of goods and sometimes for foreign exchange purpose by the importer. Prepared by: exporter
- b. **Packing List** - A list with detailed packing information of the goods shipped. Prepared by: exporter
- c. **Inspection Certificate** - A report issued by an independent surveyor (inspection company) or the exporter on the specifications of the shipment, including quality, quantity, and / or price, required by certain buyers and countries. Prepared by: inspection company or exporter
- d. **Insurance Certificate** - This certifies that the shipment has been insured under a given open policy and is to cover loss of or damage to the cargo while in transit. Prepared by: insurer or insurance agent or insurance broker

(IV) Transport Documents

- a. **Shipping Order S/O** - A document with details of the cargo and the shipper's requirements, and is the basic document for preparing other transport documents such as bill of lading, air waybill, etc. Prepared by: shipper / transport companies
- b. **Dock Receipt D/R or Mate's Receipt** - A receipt to confirm the receipt of cargo on quay / warehouse pending shipment. The dock receipt is used as documentation to prepare a bill of lading. It has no legal role regarding processing financial settlement. Prepared by: shipping company
- c. **Bill of Lading (B/L)** - An evidence of contract between the shipper of the goods and the carrier. The customer usually needs the original as proof of ownership to take possession of the goods. There are two types: a STRAIGHT bill of lading is non-negotiable and a negotiable or shipper's ORDER bill of lading (also a title document) which can be bought, sold or traded while goods are in transit and is used for many types of financing transactions. Prepared by: shipping company
- d. **Sea Waybill** - A receipt for cargo which incorporates the contract of carriage between the shipper and the carrier but is non-negotiable and is therefore not a title document. Prepared by: shipping company
- e. **Air Waybill (AWB)** - A kind of waybill used for the carriage of goods by air. This serves as a receipt of goods for delivery and states the condition of carriage but is not a title document or transferable / negotiable instrument. Prepared by: airline

(V) Financial Documents

- a. **Documentary Credit D/C** - A bank instrument (issuing or opening bank), at the request of the buyer, evidencing the bank's undertaking to the seller to pay a certain sum of money provided that specific requirements set out in the D/C are satisfied. Prepared by: the issuing bank upon an application made by the importer
- b. **Collection Instruction** - An instruction given by an exporter to its banker, which empowers the bank to collect the payment subject to the contract terms on behalf of the exporter. Prepared by: exporter
- c. **Bill of Exchange (B/E) or Draft** - An unconditional written order, in which the importer addressed to and required by the exporter to pay on demand or at a future date a certain amount of money to the order of a person or bearer. Prepared by: exporter
- d. **Trust Receipt (T/R)** - A document to release a merchandise by a bank to a buyer (the bank still retains title to the merchandise), the buyer,

who obtains the goods for processing is obligated to maintain the goods distinct from the remainder of his / her assets and to hold them ready for repossession by the bank. Prepared by: importer

(VI) Government Documents

- a. **Certificate of Origin (CO)** - This certifies the place of manufacture of the exported goods to meet the requirements of the importing authorities. Prepared by: Trade and Industry Department and five Chambers of Commerce
- b. **Certificate of Origin Generalized Systems of Preferences (GSP) Form A (or as Form A)** A CO to support the claim for preferential tariff entry (a reduced or zero rate) of the exporting country's products into the GSP donors under the GSP they operate. In general, a Form A is issued only when the goods concerned have met both the origin rules of the preference receiving country as well as the origin criteria of the respective donor country's GSP. Prepared by: Trade and Industry Department and five Chambers of Commerce
- c. **Import / Export Declaration** - A statement made to the Director of Customs at port of entry / exit, declaring full particulars of the shipment, eg. the nature and the destination / exporting country of the ship's cargo. Its primary use is for compiling trade statistics. Prepared by: exporter / importer
- d. **Import / Export Licence** - A document issued by a relevant government department authorising the imports and exports of certain controlled goods. Prepared by: Trade and Industry Department, Customs & Excise Department, etc
- e. **International Import Certificate (IIC)** - A statement issued by the government of country of destination, certifying the imported strategic goods will be disposed of in the designated country. In Hong Kong, it is issued only to meet an exporting country's requirement. Prepared by: Trade and Industry Department
- f. **Delivery Verification Certificate (DVC)** - A statement issued by the government of the country of destination, certifying a specific strategic commodity has been arrived in the designated country. In Hong Kong, it is issued only to meet an exporting country's requirement. Prepared by: Trade and Industry Department

IMPORTANCE OF DOCUMENTS

One of the most crucial components of a successful international business transaction is the accurate completion of required export documentation

and import documentation. Failure to produce such documentation can hinder the dispatch of products by the manufacturer or supplier, and can ultimately impede the timely receipt of goods by the customer. In more severe cases, business owners can be subject to fines or incarceration for failing to comply with import or export documentation requirements.

The Importance of documentation in Exports and Imports

Commercial purpose: Once the export order finalized between buyer and seller, normally a contract of sales is prepared mentioning all terms and conditions each exporter and importer should follow. So all related documents like invoice, packing list, certificate of origin, insurance, bills of exchange etc. are prepared on the basis of sales contract signed by both importer and exporter.

Legal perspectives: In India, all import export trade activities are effected legally as per the guidelines of Foreign Exchange Management Act. In each country, there will be government regulatory authority to control the import and export of the said country's trade. The government of each country has their own instructions to have export documentation legally must be filed.

Incentives: You can not claim any government assistance, support unless you have a proper documentation on your exports. There are many financial assistance and supports given government of each country to support exporters and earn foreign exchange which is the indication of wealth of the respective nation.

Based on the above, it is clear that proper documentation plays a very important role in an export business.

The documentation assistant should have idea of different type paper and documents used in the warehouse.

Activities

Activity 1: Distinguish export documents from other documents

Material required: Pen/pencil, paper

Step by step procedure:

1. Divide class in four groups.
2. Distribute a bunch of various sample documents
3. Ask them to separate the documents required for export
4. Prepare a list of documents separated from the bunch provided
5. Every group has to provide the listed names of documents

6. Involve other students by asking questions to the group and rest of the class.
7. Check the list for correctness and guide as per need

Activity 2: Prepare a list of Documents used for Interstate movement of goods

Material required: Pen/pencil, paper

Step by step procedure:

1. Divide class in four groups.
2. Distribute a bunch of various documents required for interstate transportation of goods
3. Ask each student to list the document required for interstate transportation.
4. Then ask them to find out the listed documents from the bunch of sample documents given.
5. Attach the segregated documents with the prepared list of documents and collect them for further evaluation.
6. Every group has to provide the list, with the names of documents required for interstate movement of goods.
7. Involve other students by asking questions to the group and rest of the class.
8. Check the lists for correctness and guide as per need

Check Your Progress

A. FILL IN THE BLANKS

1. A piece of written, printed, or electronic matter that provides information or evidence or that serves as an official record is called _____.
2. A _____ and typically legally binding arrangement between parties as to a course of action.
3. permit to do something is called _____.
4. Types of movement of goods within country are _____ & _____.

B. TRUE/FALSE

1. Five copies of invoice is required in interstate movement
2. TIN/CST is mandatory after the implementation of GST.
3. ARE I is required in export consignment only
4. Shipping order is a transport document

C. SHORT ANSWER QUESTION

1. What is interstate & intrastate movement of goods
2. Brief about the documents required for interstate movement of goods
3. What are three major types of documents for exporting goods
4. Describe the documentation required for export.

D. CHECK YOUR PERFORMANCE

1. Prepare a poster showing requirement and types of documents

Session 2: Procedure for Document Preparation**STEPS IN PREPARING DOCUMENTS**

Exporters should seriously consider having the freight forwarder handle the formidable amount of documentation that exporting requires; freight forwarders are specialists in this process. The following documents are commonly used in exporting; which of them are actually used in each case depends on the requirements of both the government and importing country. The following steps are involved in preparing the documents.

STEP1: Enquiry

The starting point for any Export Transaction is an enquiry. An enquiry for product should, specify the following details or provide the following data

- Size details - Std. or oversize or undersize.
- Drawing, if available
- Sample, if possible
- Quantity required
- Delivery schedule
- Is the price required on FOB or C& F or CIF basis
- Mode of Dispatch - Sea, air or Sea/air
- Mode of Packing
- Terms of Payment that would be acceptable to the Buyer - If the buyer proposes to open any Letter of Credit, any specific requirement to be complied with by the Exporter

- Is there any requirement of Pre-shipment inspection and if so, by which agency
- Any Certificate of Origin required - If so, from what agency.

STEP 2: - Proforma Generation

After studying the enquiry in detail, the exporter - be it Manufacturer Exporter or Merchant Exporter - will provide a Proforma Invoice to the Buyer.

STEP 3: Order Placement

If the offer is acceptable to the Buyer in terms of price, delivery and payment terms, the Buyer will then place an order on the Exporter, giving as much data as possible in terms of specifications, Part No. Quantity etc. (No standard format is required for such a purchase order it will depend upon commodity terms etc.)

STEP 4: Order Acceptance

It is advisable that the Exporter immediately acknowledges receipt of the order, giving a schedule for the delivery committed.

STEP 5: Goods readiness & Documentation

Once the goods are ready duly packed in Export worthy cases/cartons (depending upon the mode of dispatch), the Invoice is prepared by the Exporter.

If the number of packages is more than one, a packing list is a must. Even If the goods to be exported are excisable, no excise duty need be charged at the time of Export, as export goods are exempt from Central Excise, but the AR4 procedure is to be followed for claiming such an exemption. Similarly, no Sales Tax also is payable for export of goods.

STEP 6: Goods Removal from Works

There are different procedures for removing Export consignments to the Port, following the AR4 procedure, but it would be advisable to get the consignment sealed by the Central Excise authorities at the factory premises itself, so that open inspection by Customs authorities at the Port can be avoided. If export consignments are removed from the factory of manufacture, following the AR4 procedure, claiming exemption of excise duty, there is an obligation cast on the exporter to provide proof of export to the Central Excise authorities

STEP 7: Documents for C & F Agent

The Exporter is expected to provide the following documents to the Clearing & Forwarding Agents, who are entrusted with the task of shipping the consignments, either by air or by sea.

- Invoice
- Packing List
- Declaration in Form SDF (to meet the requirements as per FERA) in duplicate.
- AR4 - first and the second copy
- Any other declarations, as required by Customs

On account of the introduction of Electronic Data Interchange (EDI) system for processing shipping bills electronically at most of the locations - both for air or sea consignments - the C&F Agents are required to file with Customs the shipping documents, through a particular format, which will vary depending on the nature of the shipment. Broad categories of export shipments are:

- Under claim of Drawback of duty
- Without claim of Drawback
- Export by a 100% EOU
- Under DEPB Scheme

STEP 8: Customs Clearance

After assessment of the shipping bill and examination of the cargo by Customs (where required), the export consignments are permitted by Customs for ultimate Export. This is what the concerned Customs officials call the 'LET EXPORT' endorsement on the shipping bill.

STEP 9: Document Forwarding

After completing the shipment formalities, the C & F Agents are expected to forward to the Exporter the following documents:

- Customs signed Export Invoice & Packing List
- Duplicate of Form SDF
- Exchange control copy of the Shipping Bill, processed electronically
- AR4 (original duplicate) duly endorsed by Customs for having effected the Export

- Bill of Lading or Airway bill, as the case may be.

STEP 10: Bills Negotiation

With these authenticated shipping documents, the Exporter will have to negotiate the relevant export bill through authorized dealers of Reserve Bank, viz., Banks.

Under the Generalized System of Preference, imports from developing countries enjoy certain duty concessions, for which the exporters in the developing countries are expected to furnish the GSP Certificate of Origin to the Bankers, along with other shipping documents.

- Broadly, payment terms can be:
- DP Terms
- DA Terms
- Letter of Credit, payable at sight or payable at... days.

Step11: Bank to Bank Documents Forwarding

The negotiating Bank will scrutinize the shipping documents and forward them to the Banker of the importer, to enable him clear the consignment.

It is expected of such authorized dealers of Reserve Bank to ensure receipt of export proceeds, which factor has to be intimated to the Reserve Bank by means of periodical Returns.

STEP 12: Customs Obligation Discharge

As indicated above, Exporters are also expected to provide proof of export to the Central Excise authorities, on the basis of the Customs endorsements made on the reverse of AR4s and get their obligation, on this score, discharged.

STEP 13: Receipt of Bank certificate

Authorized dealers will issue Bank Certificates to the exporter, once the payment is received and only with the issuance of the Bank Certificate, the export transaction becomes complete.

It is mandatory on the part of the Exporters to negotiate the shipping documents only through authorized dealers of Reserve Bank, as only through such a system Reserve Bank can ensure receipt of export proceeds for goods shipped out of this country.

DO's AND DON'Ts WHILE PREPARING DOCUMENTS

A lot can go wrong if you're not expecting it and taking steps to prevent it.

When it comes to documentation, we suggest you adhere to the following don'ts:

- Don't express personal opinions, accusations or judgments.
- Don't use generalities, overstatements or exaggerations.
- Don't reach conclusions without all the facts.
- Don't ever attempt to reach a legal conclusion in your documentation.
- Don't use descriptive words such as "weakness", "inadequacy", "failure" – focus instead on the actual behaviour.
- Don't use absolute expressions such as "always", "never", "every time", and "invariably" unless they are completely accurate.
- Don't record anything that you have not already communicated to the employee.

The more documentation that you substantiate, the higher your credibility. Here is the list of documentation do's:

- Do create contemporaneous documents, including full name and full date at least once before using shorthand and never, ever back-date documents.
- Do obtain employee's signature to verify the discussion and goals, wherever possible.
- Do keep the documents themselves clean and fresh.
- Do use a professional tone both in the writing and in the document itself.
- Do avoid bias.

These points are to be taken carefully for execution with ease.

PARAMETERS AND CONSIDERATIONS BEFORE SCHEDULING ACTIVITIES

To ensure truck loading and unloading operations are completed safely and to eliminate the potential for injuries where vehicle and people interaction occurs. The below mentioned parameters and considerations have to be taken care of before scheduling by the concern manager/in-charge at premises.

(i) Operations Manager

- Ensure this procedure is developed and reviewed with adequate consultation; and
- Authorising approval and amendments to this procedure.

(ii) Operations Superintendent

- Implementing this procedure, including education regarding critical changes to the procedure are communicated to supervisors, employees and relevant trucking companies;
- Monitoring compliance with this procedure
- Periodic review of this procedure
- Investigating reported non-compliances with this procedure

(iii) Supervisor/person in charge

- To ensure they and their team members comply with this procedure
- To ensure that the stevedores operating equipment that requires a high risk work license, have a current license and are currently verified as competent to operate the equipment;
- To ensure the loading and unloading of trucks is conducted safely and in consultation with the truck driver
- To ensure adequate and appropriate instructions regarding this procedure are provided to the stevedore gang and relevant third parties in the logistics chain
- To report non-compliances with this procedure to Management
- To complete required documentation associated with unloading and loading of trucks; and
- Periodic review of this procedure

(iv) Truck Operators

- All truck operators to comply with this procedure;
- To report any hazards or incidents to a officer in-charge and
- To comply with directions from officer in-charge in regards to this procedure.
- To secure loads correctly
- To ensure that any specific loading requirements are passed on to the supervisor in charge of loading

PRIORITIZE THE ACTIVITIES FOR THE DAY

adequate planning is necessary to complete the tasks as per schedule and prioritization has to be done on daily basis. Similarly courier/transport

company also pre-schedule their day activities to meet the expectations of the manager and company in terms of performance.

The day activity below are in the priority sequence:

- a) **Delivery route planing** - any courier company start its day activity with delivery planing of the goods/material received on the previous day from various destinations. So this is the first thing a courier/transport company thinks of while starting the day.
- b) **Way bill segregation route wise**- after the delivery planing the waybills are segregated according to the routes and loads volume to different delivery associates. This is the call of delivery manager or the concern operation executive and his sole responsibility to segregate the loads to all available vehicle and associates.
- c) **Loading tally generated** - once the waybills are segregated physically those waybills are entered in the system and a delivery tally is generated for each vehicle and each routes.
- d) **Vehicle Loaded** - the vehicle of delivery associates are loaded as per the pre-generated delivery tally and then MR (Money Receipt) is created for each waybill and handed over to the delivery associate for delivering the goods and collecting money if any required as per the MR given.
- e) **Inventory check, system vs physical and report prepared**- once the delivery vehicle is gone for delivery the concern executive takes a system generated stock data and match it with the remaining goods at warehouse, in case of any mismatch short or excess of goods the report is prepared by the concern executive and shared to their supervisor on daily basis. This help the company to keep trace of the laying material at their warehouse.
- f) **Customer complain resolution** - once the delivery vehicle is out the customer and the delivery associate faces several issues and complains which is been taken care by the concern executive at the company office, by providing instant resolution or within the minimum time.
- g) **Local Vehicle Unload** - another essential activity at any courier office is the pickup or the goods received from local customer for dispatch to various locations. This pickup is done by the pickup associate and they start collecting goods and unload it at the company ware house, where the goods are updated in system and connected further for the movement to its final destination.

- h) **Paper/Permit check** - while unloading the material of the local booking all required documents and permit are checked at the time of unloading itself to avoid any further issues in transit of the material.
- i) **Route planning for booked material**- once the booked material is unloaded at the warehouse the concern executive has to plan and segregate those material as per the available and destined routes of the materials.
- j) **Route vehicle loading** - after the planning the material is loaded to the route vehicle for the nearest hub for further connectivity to its desired location.
- k) **RPS (Route Performance Sheet) generated and handed over to the driver of that vehicle** - once the vehicle is loaded the RPS gets generated and handed over to the driver to keep it along while transit of goods and once it reaches the next hub the same RPS has to be handed over to the concern executive over their.
- l) **Preparation of consolidated report**- after completion of the entire day process a consolidated report is generated and shared with the supervisor and other management team as a day activity report which includes various details and it may differ from company to company depending on their requirement and need.

Once the report is sent the activity of the day comes to an end and again the office area is prepared for the next day action. This same activity is repeated on daily basis to every courier company with slight variation depending on the volume and quantum of business for that region or area.

AGREEMENTS

A contract or an agreement is a voluntary arrangement between two or more parties that is enforceable by law as a binding legal agreement. Contract is a branch of the law of obligations in jurisdictions of the civil law tradition

Whether importing or exporting goods, business agreements need to exist between the person who is buying from or selling to, and the following are the key points to be included in agreements:

- **The products:** You need to be clear about their exact specifications so that you know what you're getting.
- **Sales targets:** This includes things like order quantities and the frequency of shipments.
- **Territory:** In which territory may the distributor sell? Will the distributor have exclusivity there?

- **Prices:** What are the prices of the products and the allowable markups?
- **Payment terms:** Will you use letter of credit, sight draft, open account, 30 days, consignment, and so on?
- **Shipping terms:** Will your terms be free on board (FOB) airport; free alongside ship (FAS); cost and freight (C&F); cost, insurance, and freight (CIF); and so on?
- **The level of effort required of the importers:** How hard does the importer have to work to sell the products, including minimum order commitments and long-term commitments?
- **Sales promotion and advertising:** Who will do it, who will pay for it, and how much will be invested?
- **Warranties and service:** How will defective or unsold products be handled?
- **Order lead time and price increases:** Lead time is the time required to ship the product to the company purchasing the product. When negotiating with the supplier, you need to be clear on who's responsible for any increases in material or transportation from the time the order is placed and the time it's actually available for shipment.
- **Trademarks, copyrights, and patents:** Who will register, and in whose name will it be in?
- **Provision for termination of the agreement:** Under what circumstances can the agreement be dissolved?
- **Provision for settlement of disputes:** If a product is defective or there is a misunderstanding about some aspect of the purchase or sales agreement, what process will be used to resolve disagreements?

Thus, documentation is an essential requirement in the transport or export import business. It is to be done carefully as per nature of the commodities.

Activities

Activity 1: Preparation of Lorry receipt after receiving customer order (to be distributed as per company policy)

Material required: LR copies, Sample of customer order, pen/pencil and Colour pen

Step by step procedure:

- Divide class in four groups.

- Distribute LR copies to each student and provide a customer order one in a group along with pen/pencils /sketch pens.
- Every student has to prepare a separate LR copy based on the customer order provided to the each group.
- Monitor each group activity and make sure all mandatory filled must be completed by the students.
- Collect LR copies of each student, evaluate them and share the feedback with class.
- Involve other students by asking questions to the group and rest of the class.

Activity 2: Based on the information in the LR copy, update it in system

Material required: Filled LR copies, computer lab/system

Step by step procedure:

- Divide class in four groups.
- Distribute filled LR copies to each group and allot them a system with dummy form in computer and ask each group to fill the 1 set of LR details in system/computer.
- Every student has to filled the LR copy's details into system and a printout of that system file should be taken and attached with the actual LR copy for further evaluation and guidance to the students.
- Discuss your finding with the evaluation in the class
- Involve other students by asking questions to the group and rest of the class.

Activity 3: Combine different loads onto truck for transshipment based on common destination and the truck's maximum load capacity

Material required: Empty boxes of 4-5 sizes, an empty room (assume it as truck), Measuring tape, Calculator, pen/pencil and Colour pen

Step by step procedure:

- Divide class in four groups.
- Distribute the empty boxes of 4-5 sizes to each group, also provide blank sheets, Coloured pencils /sketch pens, calculator and measuring tape.
- Ask groups to assume the empty room as truck/vehicle with a specified space similar to a truck.
- Ask them to calculate the no. of boxes can be fit into the empty space(truck) with combination of different sizes boxes.

- Involve other students by asking questions to the group and rest of the class.

Activity 4: Prepare an agreement sheet to be given at the destination along with the consignment

Material required: Paper, pen/pencil and Colour pen

Step by step procedure:

Divide class in four groups.

- Distribute the blank paper, Coloured pencils /sketch pens.
- Ask everyone to recall the class room reading and prepare an agreement with mentioning all key points of agreement and prepare a contract based on it.
- Make a sub group within the group and ask them to check with the prepared contract/agreements.
- Ask each students to list their findings and suggestions, and discuss it among the class
- Every group has to explain each key points of the agreement to the group
- Involve other students by asking questions to the group and rest of the class.

Check Your Progress

A. FILL IN THE BLANKS

- The starting point for any Export Transaction is an _____.
- After assessment of the shipping bill and examination of the cargo by Customs, the export consignments are permitted by Customs for _____.
- The negotiating Bank will scrutinize the _____ and forward them to the Banker of the importer.
- A _____ is a voluntary arrangement between two or more parties that is enforceable by law as a binding legal agreement.

B. TRUE/FALSE

- Don't express personal opinions, accusations or judgments.
- Lead time* is the time required to ship the product to the company purchasing the product.

- c) If the offer is acceptable to the Buyer in terms of price, the Buyer will then NOT place an order on the Exporter.
- d) Customs signed Export Invoice & Packing List is required by the C & F agent.

C. SHORT ANSWER QUESTION

- a) Discuss major steps in preparing documents.
- b) What are the documents required by C & F agent.
- c) Explain the procedure of custom clearance.
- d) What do you understand by the term agreement.
- e) Discuss scheduling activities at HUB/warehouse.

D. CHECK YOUR PERFORMANCE

1. Prepare a chart showing Do's and Don'ts while preparing documents.

Session 3: Prioritizing Activities

All outbound consignments need appropriate documentation and completion of formalities as per the nature of materials and the types of business activity; some basic documents and forms used in this relation are discussed, hereunder:

(A) Transit Insurance forms, tax invoice and other permits forms required

Transit insurance form contains various details about the shipping goods/material, such as shipper details, shipping date, shipment receiver address, mode of shipment, content tube shipped, value of shipment, name and account details of shipper.

Transit insurance policy provides cover to the insured's business goods or personal belongings while being transported by land. Marine Cargo policy covers the cost of damage to goods that are imported or exported to/from the nation as well within the national boundaries through any means of transport.

- **ITC (B):** Fire, lightning, breakage of bridges, collision with or by the carrying vehicle, overturning of the carrying vehicle, derailment or accidents of like nature to the carrying railway wagon / vehicle
- **ITC (A):** All risks, subject only to the specified exclusions



TAXES INVOICE/GST INVOICE:

A tax invoice was generally issued to charge the tax and pass on the input tax credit. A GST Invoice as given in fig. 2 (w.e.f 1st of July 2017, earlier Tax Invoice was required) must have the following mandatory fields:

1. Invoice number and date
2. Customer name
3. Shipping and billing address
4. Customer and taxpayer's GSTIN (if registered) **
5. Place of supply
6. HSN code/ SAC code (issued by central tax department)
7. Item details i.e. description, quantity (number), unit (metre, kg etc.), total value
8. Taxable value and discounts
9. Rate and amount of taxes i.e. CGST/SGST/IGST
10. Whether GST is payable on reverse charge basis
11. Signature of the supplier

**If the recipient is not registered AND the value is more than Rs. 50,000 then the invoice should carry:

- i. name and address of the recipient,
- ii. address of delivery,
- iii. state name and state code

TAX INVOICE		CLR 00009	23/04/2017	RS. 12,334.89										
Vijaya Traders Private Limited GSTIN: 04ARCPD987431Z5		5/1, Penthouse 01, 6th Floor, Rich Homes Apartment, Richmond Road, Bengaluru, Karnataka 560025												
Billing Details Kantech Solutions Private Limited Ground Floor, Building 2A, 23 & 24 AMR Tech Park Internal Rd Hongasandra,, Bengaluru, Karnataka 560068		Shipping Details Kantech Solutions Private Limited Ground Floor, Building 2A, 23 & 24 AMR Tech Park Internal Rd Hongasandra,, Bengaluru, Karnataka 560068												
Invoice Date 23/04/2017		Payment Terms On Receipt		Due Date 23/04/2017										
S.No	Item Description	HSN	Qty.	Unit	Rate Per Item	Total	Discount	Taxable Value	CGST	SGST	IGST			
									Rate	Amt.	Rate	Amt.	Rate	Amt.
1	Bathing soap	34011110	10	pcs	Rs.20	Rs.200	-	Rs.200	9%	Rs.18	9%	Rs.18	-	-
2	Shampoo	34011111	8	pcs	Rs.50	Rs.400	-	Rs.400	9%	Rs.36	9%	Rs.36	-	-
TOTAL						Rs.600	-	Rs.600		Rs.54		Rs.54		-
Total invoice value (In figure)									Rs.708					
Total invoice value (In Words)									Rupees seven hundred and eight only					
Amount of Tax subject to Reverse Charges									Rs.54	Rs.54	-			
Terms & Conditions			Customer Notes			Attachement								
1. The shipping cost needs to be beared by the seller 2. The seller is not responsible for any damage that happens during the transit			This order is shipped through blue dart courier			1. Shipping_receipt.pdf								
			 For Vijay Traders Pvt Ltd											

Picture 4.3: GST Invoice

As per the government and transport regulatory every state has different forms and permit requirement since the beginning of the transportation system and was timely modified and revoked by state and central government. After the implementation of GST as “One Nation One Tax” concept from 1st of July 2017, all forms and permit of various states and union territory were withdrawn by the state and UT governments and a single GST invoice and GSTIN no. Has been made mandatory for any movement of goods within nation.

Below in fig. 3 are some permit which were necessary for interstate movement of good and materials.

State	Permit / Waybill Type	Transit Pass	Other Information
Andhra Pradesh	ST form 10 required for incoming & outgoing material	YES	APGST/CST No. is must
Arumachal Pradesh	N/A	YES	Registration number is must. On invoice value 4 to 12% ST is applicable according to the product. TAX amount should be paid by DD only at the check post itself.
Assam	Form No. 61 for salable goods & form No. 62 for non-salable goods. Validity is Six months.	YES	Entry tax 1 % on cloth goods
Bihar	Form DIX	NO	Validity period to be checked & minimum 15 days remaining.
Chandigarh	Not Required		In case lorry moved via Punjab, transit pass required
Haryana	Form 38		In case value of material is less than RS. 25000/- permit not required
Himachal Pradesh	Form 26	NO	Tax applicable for plastic & steel goods at check post 7% Oil & Lubricants, 5% Tax on Hydero Thermal Projects, Telecommunications. 4% Tax on Iron & Steel, Tobacco products.
Jammu Kashmir	Purchase Order copy / Affidavit copy is nessary		1. Entry Tax is applicable @ 12.5% over the total value. 2. Toll tax is applicable @ Rs. 45/- per Quintal. 3. Form 65 required in case of goods pertaining to ARMY.
Jharkhand	JVAT 504G		1. For incoming consignments form No. JVAT 504G. 2. For outgoing consignments form No. 504B. 3. For transport of inside Jharkand form No. 504P.
Karnataka	Not Required		1. For outgoing of certain goods like Iron, Steel, rejected repaired & stock transfer form 39 will be issued by consigner at the time of Booking.
Kerala	Form no. 16	NO	Tally sheet has to submit to Checkpost.
Madhya Pradesh	Form 49 three copies for all. and also required for rejected/returned ready made goods	YES	1. Materials for other states M.P. form 85 required 2. For house hold goods form 86 is required 3. Computerized MP form is started. Two copies of Original form should be taken. Signature and seal of consigner should be obtained on the front side and rear side is must

State	Permit / Waybill Type	Transit Pass	Other Information
Maharashtra	Not Required		Value of material is must.
Manipur	Form 35 for saleable and non-saleable goods		Form 37 for non-commercial goods
Meghalaya	Two copies of Form NO. 40 is required(check post copy & customer copy)		Validity is 90 days
Mizoram	Two copies of Form NO. 33 is required(check post copy & customer copy)		Validity is 90 days
Nagaland	Unnumbered Form isrequired(check post copy & customer copy)		Validity is 30 days
Orissa	Form 32 or waybill (Validity is upto 90 Days)	YES	In case of serial AAA two copies required (Original Duplicate) in case of serial AH three copies required (Original, Duplicate & Triplicate).
Pondicherry	VAT-49	NO	
Punjab	Not Required	NO	Entry Tax for Incoming Goods. 12.5% - Cement, Ceramic Tiles, D.G.Sets, Lubricants, Marble & Plywood. 8.8% - Diesel. 4% - Iron Scrap, Pig Iron, M.S.Billet, Iron Wire, M.S.Ingot, Atta, Vanaspati/Refined Oil, Transformers, D.O.C/Rice Bran & Yarn. 2% - Furnance Oil. For Punjab State the Sales Tax Forms should be attached by downloading through website www.pextax.com. The state sale tax form for the consignments booked to punjab state to be attached by downloading it through website www.pextax.com.
Tamilnadu	Form XX		For incoming not required ST form/permit
Tripura	Form 26 for salable goods.in-numbered in white for govt. parties		Validity for form 26 is 6 or 12 months
Uttar Pradesh	Form 38	YES	Present series of permit is F/AA. For more details regarding TP/Permit, please visit commercial tax dept. Website of U.P. state.
Uttarakhand	Form 16A-VAT		Present series of permit is UK/VAT/D/2010. Almost every year the series get changed
West Bengal	Form 50	YES	Transit pass required for other states. Tax invoice copy is must for incoming material. There is a provision of way bill downloaded from internet for the consignments pertaining to West Bengal.

Picture 4.4: Form/Permit required (till 30th June 2017)

After implementation of GST the form /permit has been withdrawn from all states except few ones, below are the mentioned form/permit requirement for these states even after the GST rollout.

LIST OF STATES-- PERMIT DETAILS (as per 17/08/2017)			
NAME OF STATE	PERMIT		REMARKS
	INWARD	OUTWARD	
Andhra Pradesh	Yes	Yes	Permit applicable above INR 50,000.00
Assam	Yes	No	
Bihar	Yes	Yes	Permit applicable above INR 50,000.00
Karnataka	Yes	Yes	Permit applicable above INR 50,000.00
Kerala	Yes	Yes	Permit applicable above INR 50,000.00
Telangana	Yes	Yes	Permit applicable above INR 50,000.00
Uttar Pradesh	Yes	Yes	Permit applicable above INR 50,000.00
West Bengal	Yes	No	Permit applicable above INR 50,000.00

State	Permit / Waybill Type	Transit Pass Required	Other Information
Andhra Pradesh	ST form 10 required for incoming & outgoing material	YES	APGST/CST No. is must
Assam	Form No. 61 for saleable goods & form No. 62 for non-saleable goods. Validity is Six months.	YES	Entry tax 1 % on cloth goods
Bihar	Form DIX	NO	Validity period to be checked & minimum 15 days remaining.
Karnataka	Not Required		1. For outgoing of certain goods like Iron, Steel, rejected repaired & stock transfer form 39 will be issued by consignor at the time of Booking.
Kerala	Form no. 16	NO	Tally sheet has to submit to Checkpost.
Uttar Pradesh	Form 38	YES	Present series of permit is F/AA. For more details regarding TP/Permit, please visit commercial tax dept. Website of U.P. state.
West Bengal	Form 50	YES	Transit pass required for other states. Tax invoice copy is must for incoming material. There is a provision of way bill downloaded from internet for the consignments pertaining to West Bengal.

Picture 4.5: Permits required after GST rollout

- **ST form 10** - ST form 10 required for both in and out movement of goods in Andhra Pradesh & Telangana
- **Form 61** - In Assam Form No. 61 for saleable goods & form No. 62 for non-saleable goods. Validity Six months.
- **Form DIX** - Form DIX required for any transportation for the state of Bihar
- **Form 39** - In Karnataka for outgoing of certain goods like Iron, Steel, rejected repaired & stock transfer form 39 issued by consignor at the time of Booking.
- **Form No. 16** - Form No. 16 required for the transportation of goods in the state of Kerala, where Tally sheet has to submit to Check post.

- **Form 38** - Form 38 required for movement of goods in the state of Uttar Pradesh
- **Form 50** - Form 50 the form required by the state of west Bengal for the movement of goods and material.

STANDARD OUTBOUND DOCUMENTATION CHECKLIST

The standard outbound documentation checklist is a helpful tool to cross check all documentation requirement has been fulfilled or not. This can be a precautionary measure to tackle with unnecessary hassle and disturbance in the uninterrupted movement of goods from origin to destination and to the concern firm or individual.

The checklist can be preparing with the help of excel as per the requirement of documents and other forms/permit for the frequent routes based on the necessity of documents for goods movement on that specified routes.

The checklist (Fig 5) has no standard format and may vary from organization to organization it is basically to ease documentation and assurance complete paper formalities before transit of goods.

Riverport: _____ Project: _____ Contract # (Last 4): _____

Section 1: Advertisement and Selecting a Contractor		Yes	No	N/A
1.	Projects includes work on the KYTC Work Items List ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.	Advertisement solicits bids from KYTC Pre-Qualified Contractors ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	RFP includes detailed description of how bids/qualifications will be scored ³	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	RFP includes Prevailing Wage notice ⁴	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	RFP includes note requiring use of KYTC List of Approved Materials ⁵ when available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Riverport submit to KYTC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/> Copy of Riverport's project bid packet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/> Copy of advertisement for bids/proposals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/> List of advertisement placements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Riverport issues Request for Qualification for non-KYTC Work List Items (required if 'no' for #1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Riverport selects contractor based on advertised scoring system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	Riverport submit to KYTC (check applicable box #14-16)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	<input type="checkbox"/> Copy of at least 1 proposal for project under \$20,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	<input type="checkbox"/> Copy of 3 proposals for project between \$20,000 and \$40,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	<input type="checkbox"/> Copy of ad and proposals for project over \$40,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	Contractor is KYTC Qualified at time of begin project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Picture 4.6: Checklist Sample

LOADING OF GOODS AND DISPATCH

The prime job at a transport/cargo office is planning the entire material received and arrange for further connectivity to their destination routes after clubbing the similar route material into one vehicle and then processing the departure of that vehicle for its destination.

Below are some procedure which is followed:

- Dispatch person raise concern for incorrect paperwork to his supervisor

- Then ensure customers are notified of impending delivery - address checked
- If any money to be collected, it has to be carefully documented so driver cannot overlook it
- Double check goods to be delivered are correct in quantity, description and quality
- Damaged goods not dispatched unless agreement from customer
- Regularly check loaded vehicles to ensure packing is satisfactory and only the items to be delivered are in the vehicle
- Ensure and be satisfied with the appearance of the vehicle and the driver - they create a lasting impression
- Maintaining daily goods delivered records - ensuring drivers sign for goods in good order and condition
- All paperwork processed promptly.

Thus, it is clear that there are some documentation and procedure on sending of the goods. These procedures are to be strictly followed in the firms and the documentation assistant is responsible for it. He/She should be competent and knowledgeable in all these issue.

END CUSTOMER, DESTINATION & PROPOSED ROUTES, TRANSPORT REGULATIONS, FORMALITIES AT CHECK POST

End Customer: An end customer is an end user of the product or a service, In general term a buyer may or may not be the end customer. Because In a distribution chain of a good or service, the buyer may buy the goods or hire a service for others to use the service or consume the products. But in logistics and transport a buyer is always the end customer of any courier/transport company.

A courier company is assigned by a manufacturer/distributor to deliver a consignment their buyer, who may be the end customer or may be another dealer or stockist for that manufacturer or distributor. So the courier company is only entitled to deliver the goods to the buyer Now the buyer may consume the products by itself or may sell it again to another buyer but the role of a courier company ends just after delivering the goods. So we can say that the buyer to whom the courier company has delivered the material is only the end customer for an courier company.

Destination & Proposed routes: Every courier company has services are running for business and are ready to serve in the entire geographical area depending on their reach and network. except a few other courier company's

services are restricted to a certain geographical area and has very limited reach with lesser no. Of trucks, they cater services only on few routes from one fixed origin.

The routes for any destination from one state to another is decided in prior and is fixed till their is any need or obstruction on previous route. The trucks move from their origin to the destination as per the planned route and has pre-mentioned stops for retiring and other need of a driver. These routes are planned in the shortest way to reach the destination whereas sometimes the company also plan it based on the requirement of the vehicle in that particular route and may give touching of that vehicle to the branch of business centres available on the routes. Routes are also defined based on the documents and permits as the permits carries the name of particular check post through which it has to enter one state, in case of change of the check post for entering into state from the actual mentioned on the permit, the authority will hold the truck and penalize for such ignorance.

Transport Regulation: the carriers act, 1865 was enacted on 14th Feb 1865, with the view to regulate the carriage of goods in any form of transport. The main purpose of the carriers act, 1865 to define and limit the liability of the common carrier for the damage or loss for the consignment entrusted to them owing to their own negligence or fault. The carrier act, 1865 become absolute due to many significant changes in the transport industry and involvement of sea transport many of agents/brokers were not covered under the old carrier act of 1865.

The carriage by road act, 2007 was notified 1st Oct 2007 with the view to replace the old act keeping in mind the changes and needs of the modern days requirement of trade and transport by road. Below are few important features of carriage act 2007:

- a. Mandatory registration of common carriers
- b. Registration will be valid for entire country for a tenure of 10 years
- c. Details of branch office to be reflected on the certificate of registration.
- d. The liability of common carriers in case of loss and damage of goods.
- e. Scope of an agreement between the consignor and common carrier for transport of the consignment
- f. Common carrier shall be liable for offence of overloading and shall be penalized as per the terms of carriage act 2007

The carriage by road rules 2011 was notified on 28th feb 2011 with below addition and modification in the previous carriage by road act 2007.

1. It prescribed the form and manner of application and renewal of certificate of registration.
2. The time period for revocation of certificate of registration
3. Fee for various purposes
4. The form and manner of submitting goods forwarding note by the consignee and issue of goods receipt by the common carrier, liability of common carrier for the losses and damage to any consignment
5. The procedures and safeguards to be compiled by the common carrier for the carriage of goods of dangerous and hazardous nature.

Since the road transport is a state subject, it is for state government to make the provisions of carriage by road act/rule popular and effective through print and electronic media to enforce the provisions in letter and spirit.

4. Formalities at check-posts: Check posts were traditionally put in place to monitor the movement of goods and prevent smuggling, as well as the illegal entry of spurious products. Gradually, check posts were established under the aegis of commercial tax/sales departments.

While check posts are not directly a serious hindrance to the movement of goods, the associated regulations, lack of automation (with the exception of a few states), inadequate staffing, unexplained and in-ordinate delays in clearance of consignments, unbridled powers of the check post officer to detain goods/levy penalty, detention of goods for inconsequential reasons, etc., have, for decades, burdened transporters. This has prevented the free movement of goods across the country for the purpose of trade and commerce.

Activities

Activity 1: Verify the document with the given checklist and report the discrepancy if any

Material required: Printed checklist, with a LR receipt with dully filled details, pen/pencil and Colour pen

Step-by step procedure:

Divide class in four groups.

- Distribute the printed checklist and a dully filled LR receipt, coloured pencils /sketch pens.
- Ask the group to check the documents attached with the dully filled LR receipt is as per the checklist, tick the documents available with the LR receipt or cross if not available.

- Every student has to explain the the required documents as per the filled LR copy and other can match the checklist if it has been ticked out accordingly within the group.
- Involve other students by asking questions to the group and rest of the class.

Activity 2: Confirm with the dispatcher that the truck's destination and goods loaded have been verified and report that in a given situation

Material required: All dummy copies of documents and other paper materials, pen/pencil and Colour sketch pens as per requirement.

Step by step procedure: A role play can be given to each group with task assigned of dispatcher, truck driver, route planer and supervisor.

Divide class in four groups.

1. Each member can be provided with the list of his role, and they can demonstrate it within the group
2. Task can be divided into 3-4 steps and each assigned students has to play his role, a student can play a role of truck driver where others can play the role of loader and document assistant.
3. Various questions can be added based on the learning from exercise, which will help them to recall the class room learning and will also perform effectively.
4. Involve other students by asking questions to the group and rest of the class.

Activity 3: Brief the truck driver in the end customer, destination, proposed route transport regulations, formalities at check posts. Hand over the cash and required documents to him in order to begin the journey in a given situation

Material required: All dummy copies of documents and other paper, material's samples, sample cash, pen/pencil and Colour sketch pens as per requirement.

Step by step procedure: This task can be performed with a small case

Divide class in four groups.

1. Assign one member from each group to be a driver who will take instructions from the office supervisor or document assistant.
2. Assign each group member with a case from the above mentioned situation, like one group can trained the driver regarding the instructions for entertaining the end customer, whereas other group can

explain the routes and important details regarding the destination to the driver, or can demonstrate handling of cash to the driver along with other necessary documents.

3. Then ask them to perform each defined situation and get it evaluated by the class
4. The case can be pre defined with the task and can be monitored by the teacher as well, if the assigned task is being well performed or not.
5. Involve other students by asking questions to the group and rest of the class.

Activity 4: Get the truck driver's signature on a form (and all other forms as required). Confirming that the goods, cash for the journey have been received in a given situation.

Material required: A dummy bill receipt copy and cash handover challan, some paper, pen/pencil

Step by step procedure: Brief about the job role to each member and ask to perform a role play.

Divide class in four groups.

- Distribute the dummy bill receipt copy and cash handover challan, some paper, pen/pencil
- Assign role of a driver to one member in each group
- Assign the situation as per the earlier activity and ask students to carry forward their role play as the driver has arrived the destination.
- The team who has handed over the cash and other documents will collect the remaining cash with expense details and will also receive the documents carried by the driver.
- Like wise other member will carry forward their role play from previous activity and get the details for which they have demonstrated to the driver while dispatching him from the origin.
- Monitor closely to the group activity and instruct wherever required.
- Involve other students by asking questions to the group and rest of the class.

Check Your Progress

A. FILL IN THE BLANKS

1. Transit insurance is a _____ that covers the in-transit goods.
2. A tax invoice is generally issued to charge the _____.
3. Invoice No. is mandatory for _____.
4. HSN code is issued by _____.

B. TRUE/FALSE

1. No form/permit requirement for Andhra Pradesh after GST.
2. No form/permit required for Madhya Pradesh after implementation of GST.
3. Form 39 is required for movement of goods in Tamilnadu.
4. Checklist in documentation is to cross check if all form/permit has been attached.

C. SHORT ANSWER QUESTIONS

1. Describe what is Transit insurance.
2. Name the state (mention name of permit) where form permits are required after GST.
3. What is a TAX invoice or GST invoice, what are mentioned on it.
4. Explain the process for dispatching of goods.

D. CHECK YOUR PERFORMANCE

1. Prepare a checklist to load in a truck and verify with truck driver.

Session 4: Resolve Issue in Documentation

As we learn about the importance of outbound documentation, any goods which has to be transported needs to have proper and complete documentations to avoid any miss-happenings during the transit of that goods. In lack of the proper know-how, international shipping can be a stress for business owners. Fortunately, careful planning and attention to details can keep product on the move.

Due to negligence or unawareness a document assistant may do mistake in preparation of the documents or checking the given documents by the

consignor/seller. Below are some common issues that occurs while outbound of goods and also we will learn how to resolve these issues.

Here are the most common issues:

1. Lack of required shipping documents

A document assistant must know what is necessary to transport the goods domestically or internationally; the requirements are often underestimated and ignored. Below are some common errors while completing documentation, and avoiding these may resolve the issues within:

- **Goods description lacks clarity** - The description must be detailed and accurate. For example, 'computer parts' requires those words and the brand name, model, and serial number of the parts. The document assistant must check with the given papers if any thing to be added in description of the goods
- **Incomplete Shipment documentation** - Sometimes values, quantities or pages of the invoice are missing. Such incomplete document can create criticalness to the transportation or may attract various fine and penalties according to the law. So one must take care while preparing the documents for transportation to avoid such circumstances.
- **Incorrect product code** - Government agencies has segregated various products with a different product code for the ease of maintaining and processing the huge data in a single go. The government as well as the transport authorities are well aware of these codes and they must check if the seller has mentioned the correct code as per their documents, if not document assistant must get it done to avoid any issue in processing the goods for further movement.
- **Invoice or description is not in English** - The given invoice and good description should be in English as it is the common language and has been made mandatory. So, we should avoid or get this corrected if any seller provides us the invoice or description of goods in any other language.
- **Improper quantity or value** - Goods are deliberately under-valued to avoid duties or taxes. A document assistant or a transporter are well aware of this fact so they must ensure that the documents and actual goods value should not mismatch or should not be undervalued. Correcting such wrong practice can help us resolving the issues that may create due to improper documentation.
- **Textile samples are not prepared properly** - Government has specified what to be considered as commercial and what can be considered as

samples, but the seller sometimes tries to send their commercial goods as sample to avoid tax imposition. While checking with the documentation, goods quantity a document assistant should be able to find out if the material is for sample or the seller is trying to move a commercial goods stating it as sample. We must get such things corrected or get written documentation to avoid any legal action against it.

2. Incomplete shipper and consignee information

If the name or address is incomplete the shipment can be delayed while the carrier determines how the shipment should be handled.

3. Lack of description

The carrier needs to report to the concern who is selling/buying the goods and identify the commodity being transported. This information needs to be accurate for Customs and the customer.

4. Lack of Client Master File Data

This is the main reason for shipment delays. Shippers need to provide their carrier with their Power of Attorney, bond information and importer information in advance of the shipment arriving. Once the information is on file, all future shipments are covered. (Shipments valued at \$2,500 or more need to have this type of information on file.)

If the paper work of a consignment is not correct or seems to be fishy a customs and other government agency can examine the goods. Below are some points when customs examine the goods:

- Customs may request an exam because the paperwork and shipments details are not complete. The description and or shipper/consignee cannot be identified. They will hold the shipments to view the contents.
- They will also complete random exams, and if the item is approved it will be released. If it isn't approved, Customs will place a flag in their system to hold all future shipments from this shipper or consignee. (This is the worst possible situation because it affects all future shipments.)

The customer has been identified as an issue and is now flagged in their system.

- If a customer doesn't correctly value their shipment, it can be flagged for examination.

Apart from this also there are few document issues which need to be taken care of for smooth movement of goods.

- **Clerical errors in transport related documents** - Any clerical errors in related documents can be treated as manipulation of the information being given and thus the goods may be seized by the government agencies or may imposed with heavy penalty. So, such mistakes and overwriting on a transport documentation should not be done.
- **Number of documents required in existing process** - Government has specified the requirement of documents and in what quantity it is required for various checking and inspection throughout the transit routes, so one must be avid with these requirements and should fulfill it too.
- **Level of complication involved in transport documentation** - Different state or country has different paper work needed thus this become very complex at some time and the chances of getting goofed up with the documentation is very much possible, but to overcome this a documentation assistant must take is work seriously and do proper inspection before processing it for next step.

These can be avoided by proper documentation of each and every goods for transportation and keeping an check with the document issues will help avoid them too.

MEASURES DURING OUTBOUND DOCUMENTATION

As a document assistant our responsibility is to take proper measures to avoid any mis-happening in transportation of goods, we all know documentation is very essential for any transportation or movement of material from one origin to another. Thus, by taking accurate measures we can avoid any delay or detention of goods in transit. Such measures can be very helpful for the seller/buyer as well as for the transportation company which is involved, because when the goods are inspected by the government officials and found to be with improper documentations and wrong descriptions it might be seized whereas the company that is involved in transporting that goods may also be penalized or blacklisted depending on the level of negligence found.

Below are some measures to be taken during the outbound documentation:

- To check the standardized and aligned pre-shipment documents - the documentation assistant has to confirm if the required pre-shipment documents are available with the consignment, in absence of these documents entire transportation process can be stuck and will create unnecessary havoc to the customer as well the concern transport personal/company.

- To check the documents related to goods - while transporting any goods various documents are required to confirm its authenticity and worthiness to be transported, so confirming the same it must for the transportation.
- To check the certificates related to shipments - In transporting goods from one place to another, government has given specific requirement for the certification of goods and materials. After these certifications only some specific goods can move or be transported.
- To check the documents related to payment - documentation assistant also has to verify the requirement of the payment related documents, although these are not the documents required by the transporter but still it carries importance and without these documents the seller and buyer will not be eligible for payment transactions.
- To check the documents related to inspection - also while transporting the goods some inspection is required based on the requirement of shipping countries and their norms for importing the goods, thus these inspection certificates are must for transportation of those goods.
- To check the documents related to excisable goods - among all the various goods some are excisable ones and need additional paper work as this attracts the government taxes and also important to file refund if eligible as per government policies and plans from time to time.
- To check the documents related to exchange regulation - there are many other goods that requires exchange regulation related documents for the purpose of monitoring the and keeping record of the exchanged goods total imported.
- To check the documents related to commercial and regulatory process - also there are various documents related to commercial and regulatory purposes and are mandatory for the post shipment requirements, so this also needs to be taken care of by the concern documentation assistant.
- Export documentation involves the preparation of specified no. Of copies of the prescribed documents pertaining to the different procedures, thus a documentation assistant needs to confirm if the required no. Of copies of prescribed documents has been prepared and attached with other documents.
- To check documents for the completion of custom clearance
 - Shipping bill

- Declaration regarding the truth or statement made in the shipping bill
- Invoice
- GR form
- Export license
- Quality control inspection certificate
- Original contract or correspondence leading to contract
- Contract registration certificate
- Letter of credit
- Packing list
- AR form

There are two dozen commercial and regulatory documents involved in pre-shipment of an export transaction. The different commercial and regulatory documents can be classified into documents related to goods, documents related to shipment, documents related to payment, documents related to inspection etc.

Activity

Activity 1: Prepare a chart showing measures in outbound documentation

Material required: Drawing sheet, pen/pencil and Colour pen

Step by step procedure:

Divide class in four groups.

- Distribute the material required which includes Drawing sheets, coloured pencils / sketch pens.
- List the measures in outbound documentation as learned in the above exercise
- Assign each group with separate measures and ask them to draw a chart based on those measures, like proper details on the documents, avoiding post and pre dated documents, precise documentation, avoid overwriting on documents etc.
- Ask each group to mention the measures stepwise or in diagram form on the chart
- Prepare an attractive chart for measures in outbound documentation.

- Ask each group to explain the chart.
- Involve other students by asking questions to the group and rest of the class.

Check Your Progress

A. FILL IN THE BLANKS

- Documentation becomes _____ for the physical logistics of materials.
- Entire supply chain transaction _____ set of standardized documentation.
- Due to negligence or unawareness a document assistant may do mistake in _____ of the documents.
- Government agencies has _____ various products with a different product code.

B. TRUE or FALSE

- Accounting practices of the organizations require detailed documentation.
- The description of goods not required to be detailed and accurate.
- A documentation assistant needs to be aware of the complete set of documentation.
- The given invoice and good description can be in any language.

C. MATCH COLUMN A & B

Column A	Column B
a) Transportation requires	i. Paper work & Shipment details are incomplete
b) Goods description requires	ii. Proper documentation
c) Product code are set by	iii. Clarity
d) Custom may Examine goods if	iv. The government agencies

D. SHORT ANSWER QUESTIONS

- What are the issues in outbound documentation?

- b) Brief the process of resolving the various issues occurred while preparation of outbound documentation.
- c) Explain the measures to be taken during outbound documentation.
- d) What is the importance of proper and complete documentation?

E. CHECK YOUR PERFORMANCE

1. Prepare a chart of measures in outbound documentation

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Answer Keys**MODULE-1: BASICS OF SUPPLY CHAIN, LOGISTICS****AND WAREHOUSING****SESSION 1: INTRODUCTION TO SUPPLY CHAIN****A. Fill in the Blanks**

1- retailers, 2-Outbound, 3-Supply chain linkages, 4-Tactical, 5-Operational

B. Multiple Choice Questions

1-a, 2-b, 3-c, 4-d, 5-a

SESSION 2: CONCEPTS OF LOGISTICS**A. Fill in the Blanks**

1-Warehousing, 2-Land, 3-Cold chain, 4-E-commerce, 5-Port terminal, 6-Air cargo, 7-Inland waterways, 8-liquid logistics

B. True or false

1-False, 2-True, 3-True, 4-True, 5-True, 6-True

SESSION 3: INTRODUCTION TO INVENTORY AND LOGISTICS OPERATIONS**A. Fill in the Blanks:**

1-purchased, 2-production, 3-Profitability, 4-Purchased, 5-Decision, 6-inbound, 7-Out bound, 8-productivity, 9-Return on investment, 10-Productivity

B. True or false

1-True, 2-True, 3-True, 4-false

C. Multiple Choice Questions

1-a, 2-d, 3-c, 4-a

SESSION 4: BASICS OF DOCUMENTATION ASSISTANT**A. Fill in the Blanks**

1- warehousing, warehouse, 2-Special, 3-, 4-, 5-, logistics

B. True or false

1-True, 2- True, 3-True, 4-True, 5-False, 6-True, 7-True, 8-False, 9-T, 10-T, 11-F, 12-F, 13-F,14-T,15-F,16-T

C. Multiple Choice Questions

i-c, ii-e, iii-a, iv-b, v-d

MODULE 2: DOCUMENTATION ASSISTANT BASICS**SESSION 1: DUTIES AND RESPONSIBILITIES OF DOCUMENTATION ASSISTANT****A. Fill in the Blanks**

1- planning, 2- transportation, 3- logistics industry, 4- Customer service, 5- shipping, 6- logistics manager

B. True or False

1-True, 2-True, 3-True, 4-False, 5-True, 6-True

SESSION 2: PREPARE FOR COLLECTING INFORMATION**A. Fill in the Blanks**

1-Scheduling, 2-efficient schedule, 3-Planners, 4-Project cargo, 5-Container, 6-First Come First Serve

B. State whether the following statement are True or False

1-True, 2-True, 3-False, 4-False, 5-True

SESSION 3: PREPARE FOR PROCESSING DOCUMENTATION**A. Fill in the Blanks**

1-bar code, 2-movement and storage, 3-Shipping labels

B. True or False

1-False, 2-False, 3-False, 4-True, 5-True

SESSION 4: COMPILE DOCUMENTATION**A. Fill in the Blanks**

1-bill of lading, 2- freight bill, 3- Free on Board, 4- purchase requisition, 5- purchase invoice, 6-Customer orders

B. True or False

1-True, 2-True, 3-True, 4-True, 5-True, 6-True

MODULE 3: OUTBOUND GOODS**SESSION 1: CONCEPT OF OUTBOUND LOGISTICS****A. Fill in the Blanks**

1. Tracking 2. Consolidation 3. Accuracy 4. Smooth flow 5. Transparency

B. State whether the following statements are True or False

1. True 2. True 3. False 4. False 5. False

C. Match the Column:

1. E 2. A 3.D 4. B 5. C

SESSION 2: DISTRIBUTION AND SORTING OF OUTBOUND GOODS**A. Fill in the Blanks**

1. Maximized, 2. Right channel, 3. Outbound distribution, 4. Warehouse documentation assistants, 5. Zone picking

B. True or False

1. True, 2. False, 3. True, 4. False, 5. True

C. Match the Column:

1. E, 2. A, 3.D, 4.B, 5. C

SESSION 3: ADVANTAGES AND CHALLENGES OF OUTBOUND LOGISTIC SERVICES**A. Fill in the Blanks**

1. Wider network, 2. Delaying, 3. Coordinated, 4. Taste and preferences, 5. challenges

B. True or False

1. True, 2. False, 3. True, 4. True, 5. False

C. Match the Column:

1. C 2. A 3. D 4.E 5.B

SESSION 4: INSPECTION OF OUTBOUND GOODS**A. Fill in the Blanks**

1. Risk 2. delivery schedule 3. Performance 4. Planning department 5. Examination

B. State whether the following statements are True or False

1. True 2. False 3. False 4. True 5. True

C. Match the Column:

1. B 2. A 3. E 4. C 5. D

MODULE 4: OUTBOUND DOCUMENTATION**SESSION 1: DOCUMENT AND DOCUMENTING PROCESS****A. Fill in the Blanks**

1-Document, 2-Negotiated, 3-License, 4-Interstate & Intrastate

B. True and False

1-False, 2-False, 3-True, 4-True

SESSION 2: PROCEDURE FOR DOCUMENT PREPARATION**A. Fill in the Blanks**

1-Enquiry, 2-Export, 3-Shipping documents, 4-Contract

B. True and False:

1-True, 2-True, 3-False, 4-True

SESSION 3: PRIORITIZING ACTIVITIES**A. Fill in the Blanks**

1-Policy, 2-Tax, 3-Tax/GST Invoice, 4-Central tax department

B. True or False

1-False, 2-True, 3-False, 4-True

SESSION 4: RESOLVE ISSUE IN DOCUMENTATION**A. Fill in the Blanks**

1-Important, 2-Involves, 3-Preparation, 4-Segregated

B. True/False

1-True, 2-False, 3-True, 4-False

C. Match the following

a-ii, b-iii, c-iv, d-i

Glossary

Accomplish	Complete
Aesop	Aesop was a Greek fabulist and story teller
Airmail	A system of transporting mail by aircraft, typically overseas.
Classification	Arrangement on some basis

Commercial Vehicle	A vehicle used for carrying goods or fare-paying passengers.
Demographics	Statistical data relating to the population and particular groups within it.
E- Logistics	<i>E-logistics</i> is automating logistics process.
E-Commerce	Commercial transactions conducted electronically on the Internet.
Fable	A traditional short story
Harbours	A place on the coast where ships may moor in shelter
Heavy Vehicle	Goods carriage the gross vehicle weight
Hinterland	"The land behind"
Liquid Logistics	Used extensively in the "supply chain for liquids"
Logistics	Mode of Transport
Moored	Make fast (a boat) by attaching it by cable or rope to the shore or to an anchor.
Optimal	Maximum
Penetration	the selling of a company's products in a particular market or area.
Potential	Possible
Refrigerated	Used to keep food or drink in a chilled condition
Significance	Importance
Temperature	The degree or intensity of heat present in a substance or object
Consolidate	combine (a number of things) into a single more effective or coherent whole
Crucial	of great importance
Eliminate	completely remove or get rid of (something).

Execution	the carrying out of a plan, order, or course of action
Explores	inquire into or discuss (a subject) in detail
Fragile	easily broken or damaged
Generate	produce or create.
Performance	the action or process of performing a task or function
Pilferage	the act of stealing small amounts or small articles
Reliability	the quality of being trustworthy or of performing consistently well Schedule: a plan for carrying out a process or procedure, giving lists of intended events and times
Seek	attempt or desire to obtain or achieve (something) Streamline: more efficient and effective by employing faster or simpler working methods.
Stuff	fill (a receptacle or space) tightly with something.
Transit	the action of passing through or across a place.
Agencies	An administrative unit of government
Authenticated	Established as genuine
Buyer	A person who buys
Checklist	A list of items (names or tasks etc.) to be checked or consulted
CST	Central sales tax
Excise	A tax that is measured by the amount of business done
Export	Sell or transfer abroad
Exporters	A businessperson who transports goods abroad (for sale)

Improper	Not suitable, right or appropriate
Liabilities	Anything that is owed to someone else
LST	Local sales tax
Originating	Come into existence; take on form or shape
Penalties	A payment required for not fulfilling a contract
Policy	A line of argument rationalizing the course of action of a government
Precede	Be earlier in time; go back further
Regulatory	Restricting according to rules or principles
TIN	Tax payers' identification number
VAT	Value added tax