

DRAFT STUDY MATERIAL



EXPORT ASSISTANT

(Qualification Pack: Ref. Id. AMH/Q1601)

Sector: Apparel, Made-ups & Home Furnishing

(Grade XII)



PSS CENTRAL INSTITUTE OF VOCATIONAL EDUCATION

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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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About the Book

Apparel, Made-ups and Home Furnishing sector is amongst the fastest growing sectors in our country. It covers a great number of activities from the transformation of raw materials into fibres, yarns and fabrics to produce end products. This sector includes activities related to designing, making, cutting, stitching, finishing and decoration of apparel, made-ups and home furnishing items. It also includes assessing their quality, merchandising and export. One of the important sector of this area is exports. An Export Assistant is responsible for managing all the processes in the export department of a company. This includes preparation & management of all shipment related documents, interpret export financing methods and terms of payment, understand foreign trade practices & procedures, handle the Central Excise/Customs Clearance: Regulations, Procedures and Documentation. An export assistant needs to have complete knowledge of Indian and Foreign trade policies & operations to ensure effective management of the exports business.

The Student Book for the job role of Export Assistant has been developed to impart knowledge and skills through hands on-learning experience, which forms a part of the experiential learning. Experiential learning focusses on the learning process for the individual. Therefore, the learning activities are student-centred rather than teacher-centred.

The Student Book has been developed with the contribution of the expertise from the subject and industry experts and academicians for making it a useful and inspiring teaching-learning resource materials for the students of vocational education. Adequate care has been taken to align the content of the Book with the National Occupational Standards (NOSs) for the job role so that the students acquire necessary knowledge and skills as per the performance criteria mentioned in the respective National Occupational Standards (NOSs) of the Qualification Pack (QP). The Book has been reviewed by experts so as to make sure that the content is not only aligned with the NOSs, but is also of good quality.

The NOSs for the job role of Export Assistant covered through this Book are as follows:

1. AMH/N 1601 - Manage export marketing operations
2. AMH/N 1602 - Carry out export organizational requirements
3. AMH/N 0104 - Comply with industry regulatory and
4. AMH/N 1604 - Analyse foreign trade logistics

5. AMH/N 1605 - Maintaining a healthy, safe and secure working environment in the organization

This Book covers export marketing operations which are performed by an export assistant. The Book imbibes knowledge of major activities related to export market operation and export process to have a better understanding about the framework of export marketing operations and the documentation at each stage of operations. The Book also gives insight of fundamentals of trade logistics as applied in international trade. The Book aims to generate awareness about potential health and safety hazards at workplace and describes common health and safety practices followed at any workplace to minimize potential accidents. The Book also aims at imparting knowledge of legal, regulatory, and value based approach to management.

I extend my gratitude to all the contributors for sharing their precious knowledge, expertise, and time and also positively responding to our request for development of the present Book. I hope this Book will be useful for students and teachers who will opt for this job role. I shall be grateful to receive suggestions and observations from readers which would help in bringing out a revised and improved version of this Book.

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Module 1**Various Export Marketing Operations****Module Overview**

Export marketing can be simply defined as to sell one's goods or services to foreign countries. The goods are sent from the exporter country to the importer country as per the guidelines and procedures followed by both. Hence, export marketing becomes more complex when international restrictions, lengthy processes and global restrictions are imposed.

The price of the product to be exported depends upon various factors like demand for exported goods in the foreign market, competitive environment and regulations imposed by the government. The exporters besides manufacturing costs must also evaluate all the above factors. Exporters with respect to the pricing of goods often adopt product pricing strategies.

The benefits of export marketing involve greater opportunities to earn huge profits, valued foreign exchange and boost to the economy of the exporting country. By optimum utilisation of available resources, the exporter can promote industrial and business development earning foreign exchange. Every country tries to alter its policies to promote exports and participate in global marketing providing economic development.

In this chapter, we will study in detail about Export Marketing, its concepts and how it affects the product cost for the exporter.

EXPORT MARKETING

Export marketing can be defined as management of marketing activities for products and services which cross the national boundaries of a country.

Through export marketing a company sells its products or services to a foreign country. Export marketing comprises of a plan through which the exporters use to plan, organise and set their export business.

In export marketing, goods are shipped overseas as per the pre-determined policies framed by the exporting country as well as by the importing country. Moreover, when a business crosses the borders of a nation, it naturally becomes more complex. Export marketing has broad economic significance as it offers various benefits to the country's economy. It promotes business, industrial development, facilitates foreign exchange and ensures the efficient use of available resources. Every country is takes various steps to promote exports and active participation in international trade. Every country is required to participate in global business to enjoy

mutual benefits. In the absence of such participation in global marketing, the process of economic development of the country comes in danger.

Features of Export Marketing

The main features of export marketing are as follows:

- a) Export marketing is a systematic process of developing and distributing goods and services across national borders. Marketing activities such as marketing research, product design, branding, packaging, pricing, promotion etc. Contribute to export marketing process.
- b) Export marketing is mostly dominated by MNCs, from USA, Europe and Japan. They produce quality goods at low cost and also on massive scale. Hence, the economies help the exporter to quote competitive prices in the overseas markets.
- c) The exporter needs to identify customer's needs and wants and accordingly design and develop products for customer satisfaction.
- d) There are different trade restrictions due to the protection policies of different countries. Tax and non-tax barriers are used by countries to limit imports.
- e) Indian exporters should have a good knowledge of important trading blocs such as North American Free Trade Agreement (NAFTA), European Union and Association of Southeast Asian Nations (ASEAN).
- f) Various documents need to be submitted by the exporters to concerned authorities. The documents include – Shipping Bill, Consular Invoice, and Certificate of Origin etc.
- g) Export trade is subject to the regulations of foreign exchange imposed by different countries. These regulations relate to payments and collection of foreign exchange.
- h) Export marketing requires the right marketing mix for the target markets, i.e. exporting the right product, at the right price, at the right place and with the right promotion strategy.

- i) It brings name and goodwill to the export firm as well as to the country of its origin.

Pricing in Export Marketing

Pricing is the technique of determining an acceptable price at which the seller is willing to sell and the buyer is willing to buy the product.

In any export market, pricing and profitability are closely related to each other. Price fixed should be most reasonable and acceptable. Some people consider price as value for money while others associate it with quality. An exporter must take all factors into consideration while deciding the price of the merchandise.

Factors Determining Export Prices

Export prices are determined by both internal and external factors which are summarised below:

Internal Factors

- a) **Costs** –The export price should include both direct cost like raw material cost and indirect cost like distribution cost.
- b) **Image of the firm** – Firms which have trust and confidence of the consumer market can propose higher price.
- c) **Objectives of the firm** – Pricing must cater to the firm's objectives, such as profit maximisation and larger market share.
- d) **Product** –The value of the product determines whether a price of the product should be low, moderate or high.
- e) **Product life cycle** – When a firm introduces a product in a competitive market, then it may charge a lower price to attract the customers. During the growth stage, a firm may increase the price, especially in a low competition market.
- f) **Promotional Activities** – If a firm does heavy advertising and sales promotion, then price planning must ensure that these promotional costs should be recovered, at least in the long term.

External Factors

- a) **Channel of distribution** – The exporter must consider the number of channel intermediaries and their expectations. The longer the chain of intermediaries, the more would be the price of the goods.
- b) **Competition** – In competitive market the exporters have no control over pricing decisions. Price of a product is influenced by the competitive forces of the market.
- c) **Consumers** – Pricing depends on the final consumer or target customer. This depends on age groups, gender, income and demographics of the consumer.
- d) **Demand** – Highly elastic demand for a product has to keep its price low, because a slight change in the price may cause considerable change in demand for such a product. On the contrary, products having relatively inelastic demand can be quoted at comparatively higher prices.
- e) **Economic conditions** – The economic conditions prevailing in the market must be considered while fixing prices. For example, prices should be kept low during times of recession and high during economic boom.
- f) **Market Opportunities** – The exporter should track down the market growth opportunities. He should foresee long term benefits and introduce the price accordingly.

The details of information required for export pricing vary from product to product, market to market and firm to firm. The following table provides information on required data for export pricing.

S. No.	COSTS	CATEGORIES
1.	Product cost	material, labour, factory overhead and administrative overhead
2.	Cost of Distribution	selling cost, packing cost, transportation cost and insurance cost

3.	Cost Relating to Exports	product modification, cost of documents, export packing and marketing, loading at factory, transport to dock or airport, handling charges and fees at port or airport.
4.	Cost Estimates	Fee on Board (FOB), Cost and Freight (C & F) or Cost Insured Freight (CIF), sea freight or air freight, unloading charges at destination, airport handling charges or fees, import duty and taxes, clearing agent's fees, transport to importer's warehouses, importer's margin, wholesaler's and retailer's margin
5.	Regulation in Exporting country	floor price, duty drawback scheme, import replenishment, income tax, railway freight concession
6.	Regulation in Importing country	import duty, quota restrictions, sources of supply (foreign or domestic), substitute products, complimentary products, and terms of payment
7.	Other Relevant Data	customer's attitude towards prices and quality, inventory of finished goods, political restrictions on trade, air or ship services, business policy, sales in units and rupees, trade agreement –bilateral or multilateral

Indirect Factors Determining Export Prices

There are several factors which constitute to indirect cost added to the price of the product. An export assistant must be aware of these factors in export marketing. They further decide the exporter's capabilities in various export marketing operations. The major factors include:

- a) **Duty Rates** - The tax or duties charged by the government of exporting country is called export duty.
- b) **Shipping**: This includes the transportation of goods from exporter to importer using time and cost-effective methods.
- c) **Insurance**: This includes the decision-making ability of securing the goods from losses caused due to damage and theft by getting them insured.

- d) **Negotiations:** Various negotiations need to be done between the exporter and the importer regarding trading, shipping, pricing, etc.
- e) **Organisational Structure:** This involves looking after the needs of the people working in the organisation which can include employees or extra staff, etc.
- f) **Intellectual property rights (IPR):** Getting an IPR for the product benefits the exporter as it secures the goods exported from imitation and reduces the competition in the market.

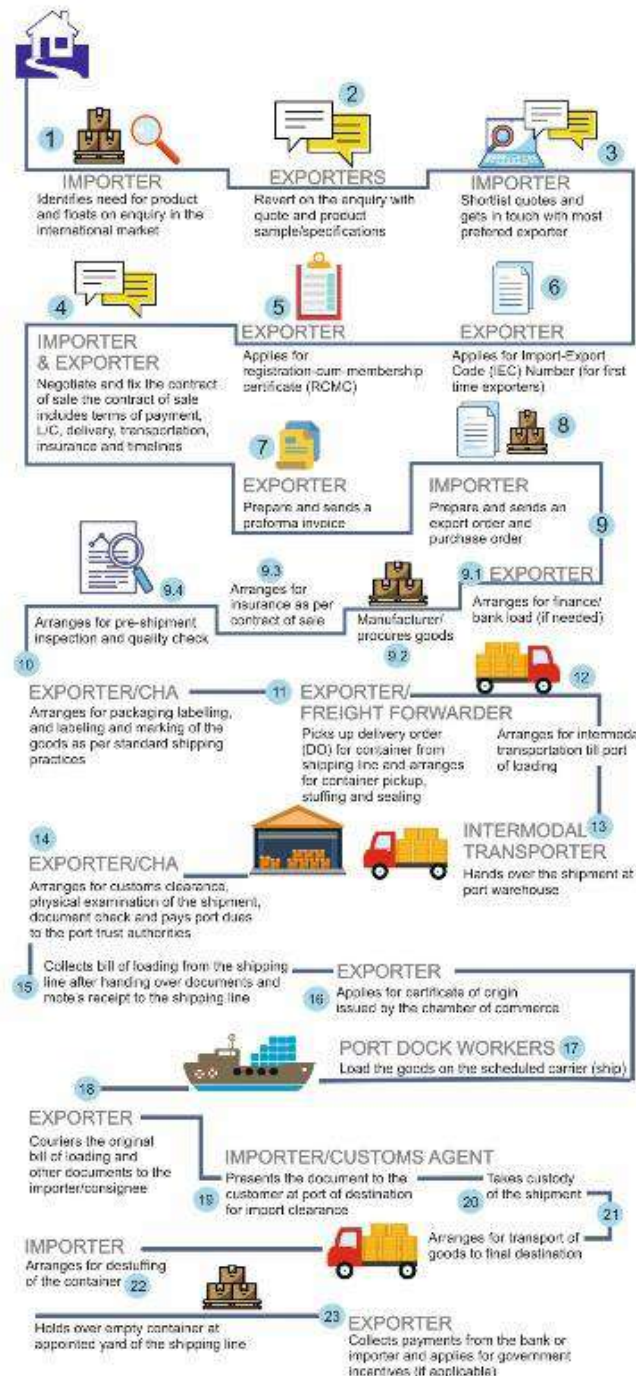


Fig. 1.1 – Export Marketing: Stages of marketing operation

Export Marketing can be understood from Fig 1.1 which describes each stage of marketing operation from the beginning of the process till the end.

The details required for export operations are as follows:

1. Importer
2. Exporter
3. Bank
4. Insurance Company
5. Freight Forwarder
6. Shipping Company
7. Customs House Agent (CHA)
8. Customs Authorities
9. Port Authorities
10. Intermodal Transport Providers

Learning Outcomes	
After completing this module, you will be able to:	
• Analyze the factors that affect cost in export marketing • To learn about various export schemes • To learn export distribution • Finance in Export Marketing Management • Organization's policies, procedures, guidelines and standards	
Module Structure	
Session-1	Factors affecting product cost for export marketing
Session-2	Export Schemes
Session-3	Export Trade Distribution
Session-4	Various Payment Terms and Export Finance Management
Session-5	Organisational Standards and Quality in Export Marketing

Session: 1 Factors Affecting Cost for Export Marketing

DUTY RATES

The tax or duties imposed by the Government of a country on the incoming goods in the country is called import duty, similarly, the tax charged by the Government on the sale of goods to another (foreign) country is called export

duty. The traders should also properly understand the rates and regulations of these different types of duties which are summarized as under:

- a) **Ad Valorem Duty:** When duties are levied according to the value of the goods. Invoice is used as a base for this purpose. This duty is imposed on the goods whose value cannot be easily determined e.g. work of art, rare manuscript, antiques, etc.
- b) **Anti-dumping duty:** At times, exporters attempt to capture foreign markets by selling goods at lowest prices, such practice is called dumping. Due to this practice of dumping, domestic industries find it difficult to compete with imported goods. To eliminate anti-dumping effects, duties are imposed in addition to normal duties.
- c) **Compound duty:** It is a combination of the specific duty and Ad-valorem duty on single product. For example, there can be a combined duty when 10% of value (ad-valorem) and Rs. 1/- on every meter of cloth is charged as duty. Thus, in this case, both duties are charged together.
- d) **Preferential Duties:** Sometimes, the Government wants to encourage the import from a particular country; therefore, it levies less duty on imports from that specific country. This is called preferential duty.
- e) **Protective Duties:** In order to promote the export of the goods to other countries, the government of a country can give some subsidies in the form of duties so that the cost of the goods can further be reduced. This preference may be given for few specific countries only.
- f) **Sliding scale duty/Seasonal duties:** These duties are imposed on products whose prices frequently vary, mostly due to natural factors such as agricultural products. These are also called as seasonal duties.
- g) **Specific Duties:** When duty is levied according to the weight or quantity of the goods, it is called specific duty, e.g., per ton, per litre etc. Such duty is collected at the time of entry of goods.
- h) **Single column tariff:** Under single column tariff system, the tariff rates are fixed for various commodities and the same rates are made applicable to imports from all countries. These rates are uniform for all countries as discrimination is not made in regard to the rates of duty.

- i) **Double column tariff:** Under double column tariff system, two rates of duty on all or on some commodities are fixed. The lower rate is made applicable to a friendly country or to a country with bilateral trade agreement. The higher rate is made applicable to all other countries with which trade agreements are not made.
- j) **Triple column tariff:** Under triple column tariff, three different rates of duty are fixed. These are general rate, international rate and preferential rate. The first two rates are similar to lower and higher rates while the preferential rate is substantially lower than the general rates and is applicable to friendly countries.

Clearance of Excise Duty

Excise duty is a levy imposed by the Central Government on goods manufactured in India. This duty is usually collected on goods at source i.e. before they are removed from the factory. Export goods are totally exempted from central excise duty. However, necessary clearance has to be obtained in either of the following two ways:

- a) **Export under Bond** - Under this system, the exporter need not pay any amount of duty but export the goods under a bond supported by a bank guarantee, for a sum equivalent to excise duty chargeable on such goods.
- b) **Export under Rebate** – Under this system, the manufacturer / exporter initially pays the duty and then claims its refund after shipment of the goods.

Hence, the price of any product is affected when pricing of goods are transferred from one subsidiary to another or to the parent company which is called transfer pricing strategy. Due to this the profits earned are also transferred to another subsidiary. Transfer pricing decisions are taken by the exporting company due to factors like differences in tax and tariff rates, foreign exchange restrictions and import restrictions, often known as trade barriers.

In contrast, the governments of developing countries, including India, offer various incentives to their exporters such as exemption from tax, customs and excise duty, trade agreements, etc., which may provide increased financial benefits to the exporters. These benefits may be transferred by the exporter to the consumer by charging lower prices.

SHIPPING

The shipment of export cargo has to be made with prior permission of and under the close supervision of the custom authorities. They cannot be loaded on the ship unless a formal permission is obtained from the custom authorities.

The custom authorities grant this permission on following conditions:

- a) When it is being satisfied that the goods being exported are of the same type and value as have been declared by the exporter or his C & F agent.
- b) The duty has been properly determined and paid, if any.

Cost of Shipping

Shipping cost is the cost for movement of cargo (shipment of goods) from one place to another. Depending on the type of contract and product the cost of shipping may comprise of different components.

Cost, Insurance, and Freight (CIF) and Free on Board (FOB) are international shipping agreements used in the transportation of goods between a buyer and a seller. Both contracts specify the following information:

- a) Origin and destination
- b) Liability of both Buyer and Seller
- c) Responsibilities of both Buyers to Sellers

CIF (Cost, Insurance and Freight) - CIF is considered a more expensive option when buying goods. This is because the seller uses forwarder of his choice who can charge the consumer more money to increase profits in the process. Communication can also be a problem because the consumer relies solely on the people who work for the seller. The buyer may have to pay extra for the port, such as docking fees and permit fees before the goods are cleared.

FOB (Free on Board) - FOB contracts relieve the seller from responsibility once the goods are shipped. After the goods have been loaded on ship they are considered to be delivered into the control of the buyer. After which the buyer then assumes all liability. As a result, the buyer gets the opportunity to negotiate a cheaper price for the freight and insurance with a forwarder of his or her choice. In fact, some international traders seek to maximise their profits by buying FOB and selling CIF.

Modes of transportation in international trade

The four main modes of international transport are road, sea, rail and air. Each mode has its advantages, disadvantages and conditions pertaining to the type of goods being exported or imported. Sometimes, there is a need to use more than one mode of transport, or freight forwarders are contacted to deal with logistics. Let us have a look on the cost involved in different transport modes:

- a) **Cost of road transport** - Road transport is more flexible than the other three modes. It is relatively easier to track your goods, secure consignments, schedule the transport and pay the relevant fees.
- b) **Cost of sea container transport** -Transport by sea allows to ship large volumes with lesser cost than the other three modes. Shipping containers can be used for transporting goods by land. However, international transportation by land can be delayed due to various reasons such as slow pace, weather shifts and inflexible routes and schedules.
- c) **Cost of rail transport** - This mode of transport is environment friendly and is often used in prosperous continents like Europe.
- d) **Cost of air transport** - Using air transport for international trade is the quickest way to ensure product delivery and distribution. It is also the safest methods of transport, and you could export or import a variety of goods through this mode. Costs for air transportation are mainly determined by the weight and partly by the distance.

MARINE INSURANCE

Marine Insurance is a contract under which the insurer undertakes to indemnify the insured against losses, caused due the perils of the sea.

Here perils of the sea include –

- a) Sinking of ship
- b) Damage to the ship and cargo due to breezy waves
- c) Dashing of the ships on the rocks
- d) Fire or explosion on the ship
- e) Spoilage of products due to sea water
- f) Destruction of the ship and cargo by the crew or captain of the ship
- g) Piracy

Section 3 of the Marine Insurance Act, 1963 defines a contract of marine insurance as an insurance cover for marine cargo, air cargo and post parcels. It provides insurance or protection for on-the-go or transit goods and also covers storage of goods. Thus, marine insurance is used to cover transportation by any of the following modes of transit singly or jointly –

- a) Sea, air or land
- b) Inland water voyages
- c) Rail / road
- d) Air
- e) Post

Procedure for obtaining Marine Insurance Policy

The following is the procedure for obtaining marine insurance policy.

- a) **Selection of Insurance Company** – The exporter needs to select the insurance firm to obtain marine insurance policy. General insurance business in India is the monopoly of General Insurance Corporation (GIC) of India and its four subsidiaries. However, if an exporter wants to insure with a foreign company, then he must take prior permission from the RBI.
- b) **Type of policy** – There are various types of marine insurance policies issued by the GIC which can suit the requirements of the exporters. The exporter should decide the appropriate type of policy taking in to consideration his requirements. These include Time policy, Voyage policy, Mixed policy etc.
- c) **Proposal Form** – To obtain a marine insurance policy, there is a need to fill up the proposal form. The information provided must be complete, correct and clear. Any misrepresentation or non-disclosure will render the contract null and void.
- d) **Verification of proposal form** – The insurance company verifies the proposal form and checks the relevant details. If it is satisfied, it accepts the proposal form.
- e) **Payment of premium** – The insurance premium charges may vary from company to company and country to country. If the exporter certifies that he will bear insurance charges on the shipment, the payment on marine insurance policy can be made in rupees.
- f) **Insurance policy** – After making payment of insurance, the insurance company issues the insurance policy which contains the following –
 - i. The name and address of the insurance company.
 - ii. The name and address of the insured.
 - iii. A description of the risks covered.
 - iv. A description of the goods insured.

- v. The sum insured.
 - vi. The date of issue, and the period of the policy.
 - vii. The places where claims are payable together with details of the agent to whom claims may be directed.
 - viii. Any other details, if applicable.
- g) **Filing of claim** – If the goods are damaged in transit, the exporter may file claim for damages or loss with the insurance firm. The claim must be submitted in prescribed form supported by relevant documents.
- h) **Claim Amount** – The insurance firm verifies the claim of the exporter. Normally, investigation is done in respect of the claim. If the insurance firm is satisfied with the claim, it sanctions the claim amount to the exporter.

Exporter				Commercial Invoice		
Tax ID/VAT number				Date		
Bank details ①				Waybill number		
Importer (Bill to)				Invoice number		
				Exporter code		
				Receiver if different from importer		
				Tax ID/VAT number		
				Shipment reference		
Full description of goods ②	Commodity Code ③	Item quantity	Unit value (Currency)	Subtotal value (Currency)	Net weight	Country of manufacture/origin ④
Freight						
Insurance						
Total declared value/currency ⑤				Total net weight/kg(s)		
Total pieces				Total gross weight/kg(s)		
⑥ Type of export ⑦ Incoterms ⑧ Reason for export I/we hereby certify that the information contained in this invoice is true and correct and that the contents of the shipments are as stated above						
Position in company				Signature		
				Company stamp		

Fig. : 1.2 - Commercial Invoice

NEGOTIATION OF FREIGHT RATES

The fixed portion (minimum base charge) of shipping charges differs depending on the shipper's individual contract, while the variable portion (fuel or accessorial charge) of shipping charges remains the same regardless of the shipper's individual contract. Therefore, shippers who are unaware of the flexible but unpredictable means of transportation and who are not willing to negotiate prices may suffer higher shipping costs as compared to others. Thus, the success of transportation outsourcing, carrier selection, and freight rate negotiation strategies depends on the shipper's ability to understand transportation cost structures and determine the freight rate which is considered "fair" and "reasonable" for a given service. The potential impact of freight rate negotiation and carrier selection strategies on shipper's transportation costs is where shippers are given a greater freedom to negotiate freight rates with carriers which increases the opportunity to save transportation costs.

Importers and exporters negotiate freight rates and services with carriers or freight forwarders. These negotiations are part of their freight rate procurement process. Freight forwarders are free of any cargo carriers because their main role is finding and negotiating the best value on behalf of clients. If we remove freight forwarders out of the logistics equation, the supply chain would falter. The services of a freight forwarder may be a non-essential shipping expense. However, a good freight forwarder can add exceptional value, not only for its clients but to the global supply chain.

Strategies of Negotiation

The following are some of the techniques used by freight forwarders which enhances the efficiency and lowers the cost:

- a) **Develop Partnering Relationships:** These should be done only with high-quality third-party logistics & freight management companies. A close, communicative and collaborative relationship with the most reliable, service-oriented companies is one key to success.
- b) **Creating Scorecard:** Partners with perfect, on-time performance levels, excellent safety records, and a consistent collaborative attitude are the main contributors of success in business.
- c) **Implement Real-Time Data Technology:** For an in-house freight or supply chain manager, having digital systems that track and monitor every element of the supply chain in real time is essential. This requires understanding where the shipments are and when these will reach the destination is essential to anticipating and solving problems. Technology

can also help to create a range of potential scenarios for “what if” situations.

- d) **Develop Contingencies for Last-Minute Orders** – Working with companies to understand how unexpected demand increase can be addressed.
- e) **Anticipate Growth** - Since every company’s objective is to achieve profitable growth, one should plan ahead to scale up the freight management system to accommodate expansion. Any significant incremental growth can quickly strain existing warehouse, transport, and staffing resources.
- f) **Enhancing Company’s Sustainability Record:** Reducing fuel usage and costs by improving route planning, enhancing driver training, investing in equipment powered with more fuel efficiency, and other positive environmental practices can be an essential marketing plus for business. Packaging changes can improve load ability while also reducing the carbon footprint per unit.

Therefore, the cost which a shipper (the consumer or business providing goods for shipment) or consignee (the person or company to whom commodities are shipped) is charged for the transportation of goods is determined by several factors. The main factors in determining the freight rate are:

- a) Transportation mode
- b) Weight of the shipment
- c) Size of the shipment
- d) Distance
- e) Pickup and delivery points

All these factors play an important role in determining the price or rate at which the freight will be transported. Shipping freight is an expensive endeavour; therefore, it is the responsibility of an exporter to get the best rates possible. Once all the data is assembled together, then a face-to-face meeting can be set up with the carrier or send out Requests for Proposals (RFP) (also known as Requests for Quotes or RFQs). RFPs give a chance to review everyone's proposal and understand what they are offering. Since the freight expenses are mostly borne by the seller, this method is referred to as "Freight Absorption Pricing". This method of geographical pricing is suitable in the following situations:

- a) When the competition in the market is very severe and the company has no choice but to keep the price of its product as low as possible, or
- b) When the company wants to penetrate in a new market, or

- c) When it expects large business to be generated due to its product price being low, this in turn will have the effect of lowering average costs.

ORGANISATIONAL STRUCTURE

Marketing system requires an understanding of fundamental organisational concepts and basic organisational principle. The organisational system should be capable of carrying out the export marketing plan. These plans can be easily adjusted, taking according to the latest developments. The foreign legal aspects and cultures setting of the export firm play an important role here.

The export manager may also keep in mind the following basic ways for organising export marketing operations.

- a) Organising the export marketing operations by sub-functions such as pricing, promotion and transportation.
- b) Organising the export marketing activities by product groups.
- c) Organising the export of marketing effort according to the uses of the product, the customer.
- d) Organising the export marketing systems geographically.

Organisation Structural Designs

An exporter can adopt any of the following types of organisational structural designs:

1. In-built Export Department:

In this type, organisation's activities are divided into various units like purchase, production, finance, domestic marketing and export marketing. The export marketing unit is headed by export manager. He explores export opportunities, for the organisation. He can also take help of other departments for arranging the goods in export market like production, finance, advertising, distribution etc. Since, this structure is at the initial stage of export, the organisation does not have adequate and efficient staff for export.

2. Independent Export Division:

This may be second stage or organised structure for export. In this case, the business organisation may have a separate export division. This division will have its own competent personnel who handle export activities. The export division may be located near the port to ease all the necessary formalities like clearing, forwarding of documents. The

export division can also take help from export promotion organisations and other government officers.

3. Export Subsidiaries:

In a number of markets where exports are high and long-term, the exporter can start the export subsidiary to undertake export operations based on marketing research, product planning and development, pricing, promotions, physical distribution and marketing of exports. However, a subsidiary can be introduced only for the purpose of export marketing. The foreign subsidiary may undertake production and marketing activities or only export marketing whichever is suitable.

4. Geographic Structure of Export Organisation:

The export organisation can be divided into various department e.g. there can be departments looking after export marketing in specific export areas, like departments looking after export to Association of Southeast Asian Nations (ASEAN) countries, European Community (EC) countries, Middle East countries etc.

5. Product Organisation Structure:

In this case, the export organisation can be decided on the basis of product levels. Thus, there can be separate, department for each product line. For example: there can be a department monitoring exports beaded garments, printed garments etc.

INTELLECTUAL PROPERTY RIGHTS

Intellectual property rights (IPR) are legal, private, enforceable rights that governments grant to inventors and artists. IPR generally provide limited dominance to right holders to use, commercialize, and market their creations and to prevent others from doing the same without their permission. IPR are planned to encourage innovation and creative output. Goods and services traded are increasingly IPR-related. Developed countries traditionally have been the source of IPR.

Examples of IPR

- a) Patents protect new innovations and inventions, such as pharmaceutical products, chemical processes, new business technologies, and computer software.
- b) Copyrights protect artistic and literary works, such as books, music, and movies.
- c) Trademarks protect distinctive commercial names, marks, and symbols.

- d) Trade secrets protect commercially valuable and confidential company information which is secret to the company. The information includes formulas, manufacturing techniques, and customer lists.
- e) Geographical indications (GIs) protect regional distinctive products.

Before deciding to do business in or with India, it is necessary to have your IP rights registered in India. IPR should be regarded as part of the costs of starting a company in India. This includes legal help and registration fees, and afterwards having an agent protect your rights.

Export pricing is the most important tool for promoting sales and exercising international competition. Exporter has to face the domestic producers in the export market, producers in other competing supplying countries and domestic producers in one's own country. The price for export should be as realistic as possible. The exporter has to exclude cost for domestic production which are not applicable for export and add those elements of costs which are relevant to export product. Hence, the price offered must be realistic considering to all export benefits and price in foreign market.

Export pricing differs from one exporter to another depending upon whether the exporter is a merchant exporter or manufacturer exporter or exporting through canalizing agency.

Activities

Activity: Make a PowerPoint presentation on factors affecting cost in Export Marketing.

Materials Required:

1. Writing material
2. Computer

Procedure:

1. Gather information on factors affecting cost in Export Marketing.
2. Based on the information prepare a PowerPoint presentation.
3. Present the same in the class.

What Have You Learned?

A. Fill in the Blanks

1. _____ can be defined as management of marketing activities for products which cross the national boundaries of a country.
2. Cost and Promotion are _____ factors for pricing.

3. When duties are levied according to the value of the goods is called _____ duty.
4. _____ and _____ are international shipping agreements used in the transportation of goods between a buyer and a seller.
5. _____ changes can improve load ability while also reducing the carbon footprint per unit.

B. Write full forms of

1. CIF
2. FOB
3. NAFTA
4. ASEAN
5. IPR

C. Subjective Questions

1. What are the features of Export Marketing?
2. Describe various kinds of duties in Export Marketing.
3. Describe the different kinds of factors which lead to Export Pricing.
4. What are the strategies for negotiation?
5. What is IPR? Give examples.

Session: 2 Export Schemes

Export finance mainly includes the study of the financial need and institutional framework to provide finance for export trade, export credit institutions, foreign exchange implications, and the methods of securing payment of export proceed. This can be done by the help of various export schemes. The institutions which involve in export financing benefits the exporter to a large extent.

Also, different methods of payments exist in export trade. The mode and manner of payment are decided by the parties of a foreign trade transaction. Banks play the most important role in this regard. An exporter and importer can decide upon the agreeable payment term to suit their own needs and acquiring profits at the same time.

In this Chapter, we can understand various Export Schemes in detail as well as the various financial institutions existing in India. We shall also study in brief about payment terms and foreign risk management.

VARIOUS EXPORT SCHEMES

Export schemes are introduced to provide boost to India's export market with the aim to increase foreign exchange and counterbalance infrastructural inefficiencies and associated cost exporters face in the market. Foreign Trade Policy (FTP) 2015-20 accentuates various export schemes, available through Directorate General of Foreign Trade (DGFT), as updated and extended till September 2021.

Types of export schemes

A. Exports from India Schemes

1. Merchandise Exports from India Scheme (MEIS)

MEIS aims to promote manufacturing and export of notified goods/ products from India. Under this scheme, the export of notified goods to notified markets are rewarded on realised FOB value of exports in free foreign exchange. Notified goods exported with a FOB value up to Rs.5 Lakhs per consignment gets the benefit of this scheme.

2. Service Exports from India Scheme (SEIS)

SEIS scheme aims to encourage and maximize export of notified services from India. Under this scheme, an incentive of 3% to 7% of net foreign exchange earnings is given to exporters of notified services in India.

B. Duty Exemption and Remission Schemes

These schemes enable duty free import of inputs for export production with export obligation. These schemes consist of following schemes:-

1. Advance Authorization Scheme (AAS)

This scheme permits duty free import of inputs that are physically incorporated in the product to be exported.

2. Advance Authorization for Annual Requirement

It is issued on the basis of annual requirement of an exporter for intermediate supplies or deemed exports. An advance licence is only issued for export houses having one to five star certificate or recognition from the Government of India.

3. Duty Free Import Authorization (DFIA) Scheme

Under this scheme, duty free import of inputs on the basic customs duty is authorized.

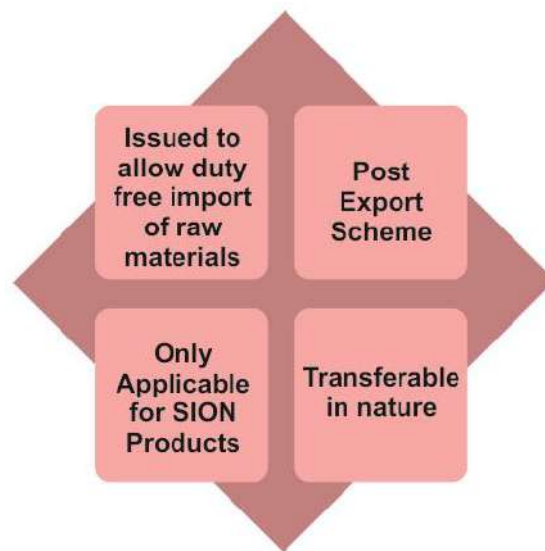


Fig.: 1.3 - Duty Free Import Authorities Schemes

4. Duty Drawback Scheme

Under this scheme, a refund is provided to the exporters on the customs and excise duty paid on inputs and raw materials/ services used in production of products to be exported. This scheme was introduced to compensate the exporters for the additional cost they incur in the form of taxes apart from the actual cost of import. Therefore, the Central excise and customs duty paid on the imported items are reimbursed to the exporter to give him the opportunity of making his products competitive in the international markets.

C. Other export benefits in India

1. Towns of Export Excellence (TEE)

Under this scheme, towns are marked as “Towns of Export Excellence” on the basis of their growth potential in terms of exports. As per the recent scheme implemented by Government of India, town that has an export turnover of Rs.1000 crores or more is notified or marked as (TEE).

2. Market Access Initiative Scheme (MAI)

This scheme is based on “focus product-focus market” concept. The aim is to evolve specific markets and specific products through market studies or surveys. Activities like capacity building, project development etc. to support cottage and handicraft units are eligible for financial assistance from this scheme.

3. Status Holder Scheme

After achieving prescribed export performance, one star export house, two star export house, three star export houses, four star export houses and five star export houses is given as status recognition to the eligible exporters as per their export performance. Such Status Holders are entitled to various non-monetary benefits as defined in the Foreign Trade Policy.

In addition to the above schemes, facilities like 24X7 customs clearance, single window in customs, self-assessment of customs duty, prior filing facility of shipping bills etc. are made available to ease exports.

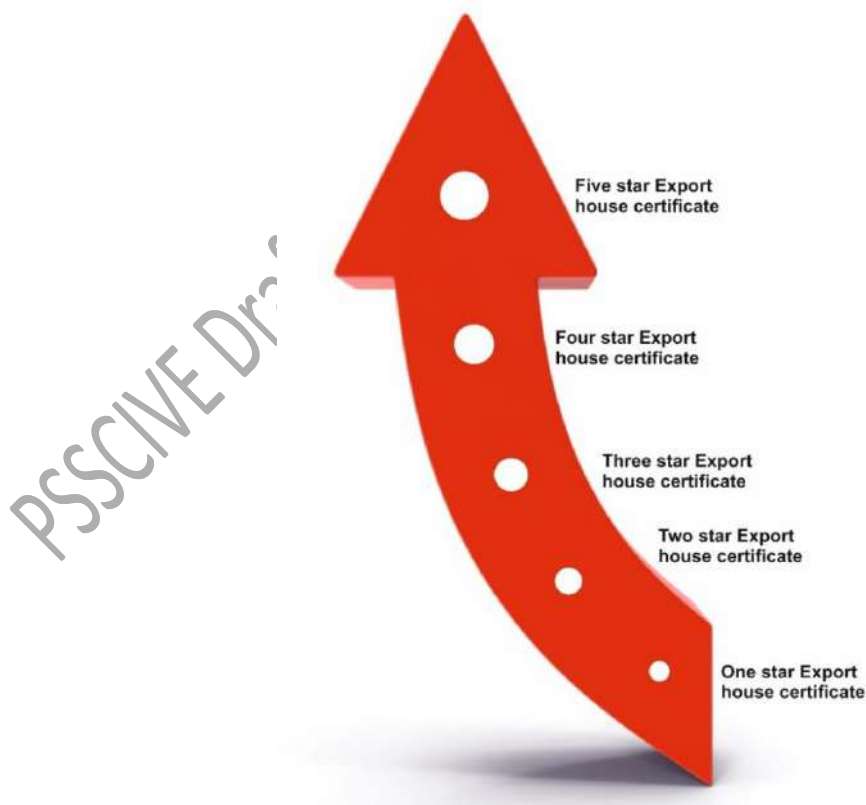


Fig.: 1.4–Categorisation of Export House According to Status Holder Scheme

4. Gold Card Scheme

This scheme was introduced by RBI to ensure expeditious and timely provision of financial assistance to the exporters, especially, small and medium creditworthy exporters with good track record for easy availability of export credit. Following are the objectives of this scheme:

- i. Faster and simpler norms for application of credit.
- ii. Automatic renewal based on fulfilment of the terms and conditions of sanction.
- iii. Performance for grant of packing credit in foreign currency (PCFC).
- iv. Lower charges are charged in respect of services provided by the banks.
- v. Relaxed collateral and security norms.

EXPORT FINANCING METHODS AND TERMS OF PAYMENT AND ADVANTAGES OF LETTER OF CREDIT- TO BOTH THE BUYER AND SELLER

Export finance is the finance agreement between the exporter and the buyer where the money is advanced against the value of unpaid invoices. Exporter are provided with short term, medium term, and long term finance depending upon the type of goods to be exported and terms of payment offered to overseas buyers by the finance institutions. Any kind of Export Transaction has following three dates. If any one of them is found missing, then the transaction is incomplete. They are:

- a) **Date of receipt of the Export Order** –Date from the buyer in the form of confirmed order or letter of credit.
- b) **Date of Shipment** – The date on which the goods will be loaded on the ship, or any other mode of transportation.
- c) **Date of Export Sales Realisation** –The date of realisation of the sale proceeds of exported goods or services.

PRE-SHIPMENT FINANCE

Pre-shipment finance is also popularly known as packing credit. It is an advance credit facility that an exporter accommodates from a bank or financial institution. The Reserve Bank of India defines it as “any loan to exporter for financing the purchase, processing, manufacturing or packing of goods”. Packing credit is working capital extended to an exporter.

The salient features of packing credit are as follows:

- a. **Eligibility-** Exporters who have export order or a letter of credit in their name from the foreign buyer are considered eligible for packing credit.
- b. **Purpose-** To meet working capital requirements before shipment of goods such as payment of raw material, payment of wages etc. packing credit is provided to the exporter.
- c. **Documentary Evidence-** Pre-shipment finance is granted against the evidence of irreversible L/C (Letter of Credit) confirmed order for export. The document of L/C confirmed order must be deposited to the bank or lending institution through which the packing credit is facilitated.
- d. **Form of Finance-** Packing credit can be either funded or non-funded advance. Funded finance includes Red Clause/Green clauses L/Cs. While domestic L/Cs, back-to-back L/Cs and various guarantees are forms of non-funded advance.
- e. **Amount of Packing Credit-** The amount of packing credit that is issued to an exporter depends on the amount of export order and credit rating of the exporter by the bank. The bank may also consider the receivable export incentives such as DBK, IPRS etc.
- f. **Period of Packing Credit-** The credit is normally issued for a period of 180 days with an extension of 90 days only with the prior permission of RBI.
- g. **Rate of Interest-** Concessional rate of interest is levied on packing credit. The difference in normal rate of interest and export finance rate of interest is refunded by RBI to banks.
- h. **Loan Agreement-** Before disbursement of loan, the banks require the exporter to execute a formal loan agreement.
- i. **Maintenance of Accounts-** As per RBI funding bank must maintain separate accounts for each pre-shipment advance.
- j. **Disbursement of loan-** Usually, pre-shipment finance advance or the packing credit is not issued at once, but it is disbursed in a phased manner.

- k. **Monitoring The Use of Advance-** The bank or the financial institution issuing packing credit should monitor that how the amount of this pre-shipment finance is being used by the exporter i.e., whether the amount is used for export purpose or not. In case of misuse penalty can be imposed on the exporter.
- l. **Repayment-** The exporter is expected to repay the amount of advance together with interest charge as soon as the export shipment proceeds or incentives are realised by the buyer.

POST-SHIPMENT FINANCE

When a loan is needed by an exporter after shipping goods, it is termed as “Post-shipment Finance”. This finance is needed once the shipment is made and before the buyer releases payment. Post-shipment finance is provided to fulfil working capital requirements after the goods are shipped.

The main features of post-shipment finances are as follows-

- a. **Eligibility-** Exporters who have actually shipped the goods or to an exporter in whose name the export documents are transferred are eligible for post-shipment finance.
- b. **Purpose-** Working capital to the exporter from the date of shipment to the date of realisation of export proceeds is provided by post-shipment finance.
- c. **Documentary Evidence-** The post-shipment finance amount is sanctioned to an exporter against the evidence of shipping documents indicating the compliance of actual shipment of goods or other necessary evidence.
- d. **Forms of Post-Shipment Finance-** Banks provide post-shipment finance under different forms such as discounting of export bills, advance against goods sent on consignment basis, advance against retention money etc..
- e. **Amount of Post-Shipment Credit-** the amount of working capital required by the exporter after shipping the goods determines the amount of post-shipment finance.

- f. **Period of Post-Shipment Finance-** Short term loan for post-shipment finance by commercial banks is usually issued for 90 day.
- g. **Rate of Interest-** Post-shipment finance facility is granted at a concessional rate of interest, as compared to the rate of interest charged for domestic or local parties.
- h. **Loan Agreement-** Before the disbursement of loan amount, the exporter is required to execute a formal loan agreement with the bank.
- i. **Maintenance of Accounts-** As per RBI directives, separate accounts must be maintained for each post-shipment advance by the banks.
- j. **Disbursement of Loan Accounts-** Post-shipment credit advances are normally not given at once. The amount is disbursed in instalments as and when required by the exporter.
- k. **Monitoring the use of Advance-** The bank must monitor whether the exporter is using the post-shipment finance amount for export purpose or not. In case of misuse, penalty can be imposed on the exporter.

INSTITUTIONS ENGAGED IN EXPORT FINANCING

Government of India has established several institutions to cater the various financial needs of export. Besides these institutions, RBI has issued norms to commercial banks and dealers dealing in export financing. Export Credit Guarantee Corporation of India Ltd. (ECGC) and Export Import Bank of India (EXIM) are the pioneer institutions in this field. These institutions have launched various policies, which cover the credit needs at pre-shipment and post-shipment and risk coverage of exports. A brief description of EXIM bank, ECGC, RBI & Commercial bank & IDBI are given below & these institutions are discussed in detail in following chapters.

Export Import (EXIM) Bank of India:

The Export Import Bank of India, set up in 1982, provides financial assistance to both the exporter and importer. It also functions as the principal financial institutions for coordinating the working of institutions engaged in financing export-import of goods and services aiming to promote the country's international trade. The authorised capital of EXIM bank is Rs

200 crores and the paid capital is Rs. 76 crores (subscribed by the Central Government).

Presently, the EXIM bank has the following scheme of assistance:

- The EXIM bank provides finance to the Indian exporters so that the exporter can extend term credit to overseas importers of capital goods made in India.
- The EXIM bank provides finance to the Indian exporters of consultancy services and technology for them to extend credit to the overseas importer.
- The EXIM bank provides pre-shipment credit to the Indian exporter to enable them to buy raw materials and other input required for providing capital equipment to be exported.
- The EXIM bank provides the overseas buyer (importer) with deferred credit for purchase of Indian capital goods.

Export Credit Guarantee Corporation (ECGC) of India:

The Export Credit Guarantee Corporation, a Government of India undertaking, set up under the Ministry of Commerce, provides insurance to Indian exporters of goods and services, against the risk of non-payment for exporters. Under the ECGC credit insurance policy, the exporter is assured that ECGC will pay if the overseas buyer fails to pay for the goods and services exported. ECGC, bearing the main brunt of risk, pay the exporter 90% of his loan on accord of commercial and political risk.

The cover issued by the ECGC could be divided into four groups as:

- Standard policies issued to exporters to protect them against payment risk involved in exports on short term credit.
- Specified policies designed to Indian firms against payment risk involved in:
 - I. Export on different terms of payment.
 - II. Services rendered to foreign parties.

- Financial guarantee issued to banks in India to protect them from risk of loss involved in their extending financial support to exporters at the post-shipment as well as pre-shipment stages.
- Special scheme, viz., transfer guarantee to protect banks which add confirmation to letter of credit opened by foreign banks, insurance cover for buyer's credit, lines of credit, overseas investment insurance and exchange fluctuation risk insurance.

Reserve Bank of India(RBI):

As an apex banking institution of the country, the Reserve Bank of India's role in the Indian economy has been dual promotional and regulatory. However, in recent years its promotional role has been more predominant. In the field of providing finance to foreign trade, the RBI performs several important functions, some of which are as follows.

- It sanctions loans to the scheduled banks against the security of bills of exchange drawn in the course of foreign trade.
- It exercises control over foreign exchange so that it could be made available to meet the genuine needs of foreign trade.

Commercial Banks

The exporters get pre-shipment as well as post-shipment finance from commercial banks. The pre-shipment finance from Commercial Banks are in the form of packing credit in respect of shipment expected to be made within a period not exceeding 180 days from the date of advance is granted. While there is no specified time or period defined for post-shipment finance. The amount is generally forwarded in the form of loan, cash overdraft or discounting of bill. If a loan is granted the borrower can draw the amount either in cash or get it credited to his current account from which he may withdraw the amount as and when required. According to credit policy announced in 1970, banks are authorized to levy a commitment charges as the commitment is made, interest is chargeable right from the time the loan is made until the repayment is debited on quarterly basis.

Under cash credit and overdraft facilities, a credit limit is sanctioned for each customer by the bank and the party is permitted to with draw a part of whole of the amount. This facility provides flexibility in drawings. The credit

can be utilised as and when required and the interest is chargeable only on the amount drawn.

Industrial Development Bank of India (IDBI)

The Industrial Development Bank of India was established in July 1964. With the enactment of the public financial institutions (amendment) act, 1975, the IDBI has now been made the apex financial institution to aid and control the functioning of other financial institutions. In the field of foreign trade, IDBI provides direct loans to the export oriented industrial units and exporter. It also grants refinance against export credit provided by the scheduled banks.

PAYMENT TERMS / METHODS

In today's global competitive market place, one needs to lend attractive sales term and payment method to have edge over competitor in the same industry. Decision on payment methods in export decides the level of risk the firm takes by getting associated along with overall work done, hence, right knowledge and selection of payment method decides not only the success also the survival of the firm in industry. Some commonly used payment method includes Cash-in-Advance, Letter of Credit, Documentary Collections, Open Account and Consignment.

Cash-in-Advance

Under this payment method, the importer pays the exporter prior before shipment of goods. The payment is either bank drafted or electronically made. The complexity involved in cash-in-advance payment is minimal; also the risk involved is less for the exporter irrespective of the time it is delivered. Though it lends high risk to the importer, it provides an opportunity to the importer against exchange rate risk. Although cash-in-advance payment option is rare and shifts burden totally towards importer, there exists a possibility of importer claiming total amount if the agreed terms and condition not met, hence, it is sole responsibility of the exporter to analyse his firm potential and capacity in executing particular order.

Letter of Credit (L/C)

L/C is been used for years in international trade and this payment method is beneficial to both buyer and seller. In L/C the issuing bank will promise to release the payment once all the terms and conditions stated in the

agreement are met. With respect to L/C the operation complexity is high also the cost in terms of transaction is quite high.

L/C is the most secured form of transactional payment method, provided terms and conditions stated are met, there exists a possibility of very rare denial after the goods are sent, therefore, third party inspection prior before the goods are sent is recommended.

Advantages of Letter of Credit (L/C)

- **To the Exporter**

- a) **No Blocking of Funds** - Once the exporter fulfils all the conditions of L/C and presents the documents for negotiation to his bankers, he receives payment as per the terms of L/C. The exporter is entitled to receive the full payments of the exports.
- b) **Clearance of Import Regulations** -When the opening bank issues the L/C indicates that the importer has fulfilled provisions of exchange control regulations in his country. Transfer of funds will not create a problem from the exchange control authorities.
- c) **Free from Liability** -In case of confirmed L/C and without recourse clause, the liability of the exporter comes to an end as soon as he hands over the relevant documents to the bank.
- d) **Pre-shipment Finance** -In India, pre-shipment finance is granted by commercial bank on the strength of L/C received by the exporter from the importer's bank.
- e) **Non-refusal by Importer** -The importer may refuse to take possession of goods and make payment in case of D/P (Documents against Payments), and D/A (Documents Against Acceptance) bills of exchange, but is difficult for the importer to refuse possession of goods and make payment against bills drawn under letter of credit.
- f) **No Bad Debts** -As the payment is guaranteed by the opening bank, the exporter is free from the problem of bad debt. In case the exporter holds a confirmed L/C, there is double guarantee by the opening bank and the confirming bank.

- **To the Importer**

- a) **Better Terms of Trade** -The opening bank provides credit facility to the importer. This helps the importer to obtain better terms of trade from the foreign supplier.
- b) **Certainty of Shipment of Goods** -The exporter cannot get any benefit under the letter of credit without shipping the goods and submitting documents to the bank, therefore, the importer is certain to get the supply.
- c) **Overdraft Facility** -When the importer falls short of payments, he can take possession of the documents against overdraft facility.
- d) **Funds are not blocked** -There is no need for the importer to block his funds by making advance payment to the exporter.
- e) **Delivery on Time** -The importer can obtain required documents on time under the terms of L/C. Thus, he can get the delivery of goods on time.

Documentary Collections

This payment method involves remitting bank sending documents to the importer bank to receive the payment. The complexity involved in this type of payment term is medium. Unlike L/C it possesses moderate risk comparatively as incise of non-payment legal work might be costly.

It is better to appoint a representative known as "Case in Need" in case of dispute due to non-payment or any problem contradictory to terms and conditions. The primary mitigation is to exchange required documents against payment through third neutral party.

Open Account

An open account transaction involves exporting goods and giving the importer a credit facility ranging for 30 to 90 days after the arrival of goods. This turns as the most advantageous factor for importer, however, makes the exporter to operate at highest risk.

Indian exporter faces significant amount of risk associated with open account transfer, In case of non-payment, exporter have to complain with supporting documents legally through local agency, this in turn is also an expensive process. It is strongly recommended to create papers and get acknowledged with the parties involved, this creates awareness and reduces risk associated with open account transfer.

Consignment

When goods are shipped on consignment basis or other methods the ownership of the goods even after reaching the importer lays with exporter, only after the full payment the ownership changes. This is regardless of other payment method named as CAD (Cash against Delivery) or DA (Document on Acceptance), the procedure is same as open account and possess substantial risk possessed by the open account.

It follows similar mitigation method as followed in open account payment method which serve well to exporter. It is strongly suggested to look for secured payment terms such as L/C, through banks and advance payment for exporters over other payment options in export business as; there lies minimal security over the payment to be received.

EXPORT CREDIT AND FOREIGN EXCHANGE RISK MANAGEMENT

Foreign exchange risk or FX risk can be defined as a financial risk that exists when a financial transaction is denominated in a currency other than the domestic currency of the company. Foreign Risk Management is considered to be too complex, expensive and time – consuming due to constant fluctuations of currency exchange rates.

Types of Exposure

a) Transaction Exposure

Foreign exchange market with exchange rates keeps on fluctuating, therefore the firms face a risk of changes in the exchange rate between the foreign and domestic currency. It means the risk associated with a change in the exchange rate during the period in which the organisation begins the transaction and resolves it.

b) Economic Exposure

A firm has an economic exposure also called risk forecasting to the extent that its market value is influenced by an unexpected drop in exchange rate. Such exchange rate adjustments could significantly affect the company's position in the market in relation to its competitors, the company's future cash flows, and ultimately the company's value. Economic exposure could affect the present value of cash flows in the future.

c) Translation Exposure

The company's exposure to translation is the extent to which its financial reporting is affected by the exchange rate movement. Since all companies generally have to prepare consolidated financial statements for reporting purposes, the international consolidation process involves translating foreign assets and liabilities or financial statements of foreign subsidiaries from foreign currency to domestic currency.

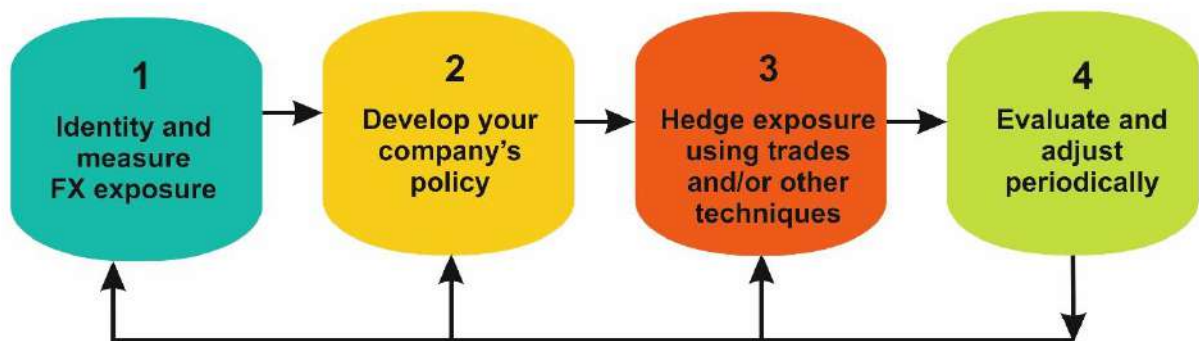


Fig.: 1.5 - Steps to Manage Foreign Exchange Risk

Activities

Activity: Prepare a chart of various Export Schemes.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive
4. Scissors

Procedure:

1. On a chart paper briefly enlist various Export Schemes using flow charts.
2. Place the chart in your class.

What Have You Learned?

A. Fill in the Blanks

1. _____ aims to promote manufacturing and export of notified goods/ products from India.

2. _____ schemes enable duty free import of inputs for export production with export obligation.
3. Under DFIA scheme, _____ import of inputs on the basic customs duty is authorized.
4. _____ payment method involves remitting bank sending documents to the importer bank to receive the payment.
5. _____ is the most secured form of transactional payment method.

B. Give full forms of

1. MEIS
2. ECGC
3. L/C
4. IDBI

B. Subjective Questions

1. Briefly explain various export schemes.
2. Discuss the features of pre-shipment finance?
3. Discuss the role of EXIM bank in promoting exports
4. Explain the advantages of letter of credit to the exporter?
5. Define Foreign Risk management. Discuss types of foreign exchange risks.

Session: 3 Export Trade Distribution

Export marketing organisations are specialized agencies concerned with export trade. They look after the exports of Indian goods and services. These organisations explore foreign markets and arrange to send goods to foreign buyers as per the orders received. They also maintain necessary facilities and export staff to manage export marketing activities efficiently. Export organisations conduct export trade transactions on their own. They have export department or export division for export marketing operations.

In this chapter we will particularly study about Export Promotion Councils (EPC) and World Trade Organisation (WTO), which work for export promotion and assistance. Further we will understand the various documents required for export business as well as major channels of trade distribution.

INSTITUTIONAL FRAMEWORK FOR EXPORT PROMOTION COUNCILS (EPCs) AND WORLD TRADE ORGANISATION

Export Promotion Councils are non-profit organisations registered under the Companies Act or the Society's Registration Act. They are supported by the financial assistance from the Central Government. The various EPCs are as follows-

1.	Apparels EPC	13.	Sports Goods EPC
2.	Basic Chemicals	14.	Shellac EPC
3.	Pharmaceuticals and Cotton Textiles EPC	15.	Wool and woollens EPC
4.	Carpet EPC	16.	Electronic and computer software EPC
5.	Cashew EPC	17.	Handicrafts EPC
6.	Engineering EPC	18.	The power loom development and EPC
7.	Gems and Jewellery EPC	19.	Export Promotion Council for EOUs
8.	Handloom EPC	20.	Export Promotion Council for

			SEZ units
9.	Indian Silk EPC	21.	Project Export Promotion Council of India
10.	Council for Leather Export,	22.	Pharmaceutical export promotion council
11.	Plastics and Linoleum EPC	23.	Jute manufacturers development council
12.	Synthetic and Rayon textiles EPC	24.	Wool industry EPC
There are three other organisations considered as EPC are :			
1.	Agricultural and Processed Food Product Export Development Authority		
2.	Federation of India Export Organisation		
3.	Marine Products Export Development Authority		

Basic Objectives

- Promote and develop the exports of the country. Each Council is responsible for the promotion of a particular group of products, projects and services.
- Project India's image abroad as a reliable supplier of high quality goods and services.
- EPCs encourage and monitor that the exporter practice international standards and specifications.
- Trends and opportunities of goods and services are maintained by EPCs ,which enables EPCs to assist their members in taking advantage of such opportunities in order to expand and diversify their exports.

Functions of EPC

- EPCs provide information and assistance to their members which is commercially useful to them and assists them in developing and increasing their exports.
- Provides professional advice to their members in areas such as technology advancements, quality and design improvement, standards and specifications, product development, innovation, etc
- To organise visits for its members abroad to explore overseas market opportunities.
- EPCs organise participation in national and international trade fairs, exhibitions and buyer-seller meets.

- e) EPCs promote interconnection between the exporting community and both Central and State Government.
- f) To build a statistical base and provide data on the exports and imports of the country, exports and imports of their members, as well as other relevant international trade data.

Nature of EPC

- a) The EPCs are non-profit organisations.
- b) The EPCs are independent and regulate their own affairs.
- c) In order to take approval from the Central Government for participation in trade fairs, exhibitions etc. and for sending sales teams/ delegations abroad, the exporters require EPCs.
- d) In order to give a boost to exports, it is important that the EPCs function as professional bodies.
- e) Executives with a professional background in commerce, management and international marketing and having experience in government and industry are brought into the EPCs.
- f) The EPCs may be provided with financial assistance by the Central Government.
- g) An exporter may, register himself and become a member of an Export Promotion Council. After which he gets Registration-cum- Membership Certificate (RCMC).

WORLD TRADE ORGANISATION (WTO)

The world trade organisation (WTO) started functioning from 1st January 1995. WTO is the result of Uruguay Round of negotiations. WTO is the successor to the General Agreement on Tariffs and Trade (GATT). GATT has ceased to exist as a separate institution and has become part of the WTO. WTO has larger membership than GATT. India is one of the founder members of WTO.

Objectives of WTO

- a) Free trade i.e. trade without discrimination
- b) Growth of less developed countries
- c) Protection and preservation of environment
- d) Optimum utilisation of available world's resources
- e) Raising living standard of citizens of member countries
- f) Settlement of trade disputes among member countries through consultation and dispute settlement procedures

- g) Generating employment opportunities at global.
- h) Enlargement of production and trade

Functions of WTO

- a) **Administration of agreement-** It looks after the administration of a number of agreements which were concluded and entered into after the Uruguay round.
- b) **Implementation of reduction of trade barriers-** It checks the implementation of the tariff cuts and reduction of non-tariff measures agreed upon by the member nations at the conclusion of the Uruguay round.
- c) **Examination of Members Trade Policies-** It regularly examines the foreign trade policies of the member nations, to see that such policies are in line with WTO guidelines.
- d) **Collection of foreign trade information-** It collects information in respect of export-import trade, various trade measures and other trade statistics of member nations.
- e) **Settlement of disputes-** It provides conciliation mechanism for arriving at an amicable solution to trade conflicts among member nations. The WTO dispute settlement body adjudicates the trade disputes that cannot be solved through bilateral talks between member nations.
- f) **Consultancy services-** It keeps a watch on the development in the world economy and it provides consultancy services to its member nations.
- g) **Forum for negotiation-** WTO is a forum where member nations continuously negotiate the exchange of trade concessions. The member nations also discuss trade restrictions in areas of goods, services, intellectual property etc.
- h) **Assistance of IMF and IBRD-** It assists IMF and IBRD for establishing coherence in universal economic policy administration.

DETAILS OF DOCUMENTATION

- a) **Shipping Bill/ Bill of Export**- is the document which is issued by the shipping agent and is required by the Customs Authority for allowing shipment.
- b) **Customs Declaration Form** – It is a document that lists the details of the composition of the shipment. This document helps the customs to be notified about the items of shipment. It is signed by the sender.
- c) **Dispatch Note** – the dispatch note conveys the buyer that the goods have been shipped by the exporter.
- d) **Commercial Invoice** – Issued by the exporter based on the purchase order of the buyer for the shipment. It reflects the full realizable amount of goods as per trade term.
- e) **Consular Invoice** – It is a document that certifies a shipment. It includes information such as the consignor, consignee and value of shipment.
- f) **Customs Invoice** – It is a document that permits the export of goods. It is similar to commercial invoice but it is used for high volume shipments.
- g) **Legalized Invoice** – It is the consular invoice with signature and stamp from embassy or consulate of the country.
- h) **Packing List** – It is a document that shows the details of goods contained in shipment.
- i) **Export Packing List** – An export packing list is detailed and informative form of a packing list. It includes information about the contents of each individual package, type of package, and the individual net, legal, tare and gross weights and measurements for each package of the shipment.
- j) **Certificate of Inspection** – The goods before shipment are inspected to check their quality and condition. A certificate of inspection describes the condition of goods at the time of this pre-shipment inspection.
- k) **Black List Certificate** – It is necessary for countries with strained political ties. It verifies that the goods-carrying ship or plane did not pass through specific countries (s).
- l) **Manufacturer's Certificate** – For some countries manufacturer's certificate, is necessary in addition to the Certificate of Origin to demonstrate that the products delivered have been manufactured and are available.
- m) **Certificate of Chemical Analysis** – Certain commodities, such as metallic ores and pigments, require a certificate of chemical analysis to verify their quality and grade.
- n) **Certificate of Shipment** – It denotes that a specific shipment of products has been shipped.

- o) **Health/ Veterinary/ Sanitary Certification** – This certificate is required for export of products like foodstuffs, marine products, hides, livestock etc.
- p) **Certificate of Conditioning** – It is issued by the appropriate agency to certify that the humidity factor, dry weight, and other requirements are met.
- q) **Antiquity Measurement** – In the case of antiquities, it is issued by India's Archaeological Survey.
- r) **Shipping Order** – It is issued by the Shipping (Conference) Line, informing the exporter of the reservation of space on a certain vessel for cargo shipping from a specific port on a given date.
- s) **Cart/ Lorry Ticket** – It is prepared for cargo entry via the port gate and includes the shipper's name, cart/lorry number, package markings, amount, and other information.
- t) **Shut Out Advice** – It is a statement of packages which are shut out by a ship which is sent to the exporter to arrange for disposal of these packages.
- u) **Insurance Certificate:** An insurance certificate assures the consignee that the goods will be covered in the event of loss or damage while in transit.
- v) **Inspection Certificate:** For some regulated items, foreign customs or corporations frequently demand inspection certifications. Inspection certifications may also be necessary to certify that vessels or crates are clear of pollutants before entering particular ports, or that the items fulfilled the contract or purchase order criteria.
- w) **Short Shipment Form** – It is a form that is submitted to the port's customs officials to notify them of a short shipment of goods and is necessary for claiming the return.

CHANNELS OF DISTRIBUTION IN EXPORT MARKETS

A distribution channel is a collection of marketing institutions that participate in marketing activities related to the flow of products or services from the main producer to the final customer. Channels of distribution are the marketing intermediaries through whom the product reaches to the final user or consumer.

Types of distribution channels

- a) **Canalizing Agencies** - Goods are sent through canalising agents in the export market. Items that have been canalised are exported through canalising organisations.

- b) Export Consortia** –This channel is generally used by Indian exporter for exporting goods of small manufacturer. It means small exporters can jointly export through export consortia.
- c) Merchant Exporters** -In this channel of distribution, the exporters obtain orders from overseas markets and assemble the goods for export.
- d) Export houses/trading Houses**–They are like merchant exporters. Certain requirements must be met in order to become an export house, trading house, star trading house, or super star trading house. These are the crucial middlemen who assist in the export of products from one country to another.
- e) Overseas Sales Agents** -The exporter can appoint overseas agents to distribute and market his goods.
- f) Direct Exporting Channel** -The exporter can also undertake direct exporting in the overseas markets. The direct exporting can be done through Sales Representatives and E-commerce or Online business.
- g) Indirect Exporting Channel** -Indirect channel is used in exporting when a manufacturer markets his product through another firm which acts as the manufacturer's sales intermediary/middleman. At the overseas marketing level number of intermediaries are used such as export broker, export agent/sales representative of the manufacturer, export Management Company, purchase/buying agent, export distributor and so on.

EXPORT MARKETING FUNCTIONS / STRATEGIES IN TRADE

Following are the export marketing functions/strategies:

1. Marketing Objectives

Marketing objectives of a firm should be clear. The objectives must be attainable, practical and communicated to employees of the firm. This is important as the employees will further determine the business according to firm's direction and activities. The management should take time to decide the activities and devote effort in setting them.

2. Market Segmentation

It is important to know the target segment in export marketing. Any marketing plan is incomplete without proper market segmentation. All large markets have a substantially different target market for doing business.

3. Market Research

Market Research includes identifying of attractive export markets and their export potential for the products to sell. An export trade can only be successful with an extensive and effortful market research. Therefore, in export marketing, market research and forecasting holds utmost importance.

4. Product Characteristics

The firm must consider the characteristics of the product it is offering to the export market. This can be done through product analysis. The analysis can include modifications if required in the product, changes in packing, labelling requirements, brand name and sales services.

5. Export Pricing

Export price must be decided very carefully. The business firm should consider all the additional costs that are not included in domestic marketing like international freight and insurance charges, product adaptation costs, import duties, commission for import agents and foreign exchange risk coverage.

6. Understanding Export Marketing Plans

In order to understand trade distribution and how Export Marketing functions effectively, the Export Manager must come up with a good marketing plan. Marketing is a strategy, it is not confined to sales, promotion and advertising. A good marketing plan should cater to the research and have following features:

- a) Characteristics of target market
- b) The ways in which the competitors approach market
- c) The best option for promotional strategies

7. Understanding legal considerations

A business firm must have knowledge about various legal considerations of the exporting as well as the exporting country. This may include registered trademarks, intellectual property rights, liabilities and documentation of the business.

8. Optimum Utilisation of Resources

The business firm must use the available resources to its full potential. For Example, the excess production of oil and petroleum in Gulf countries is exported to the world market. Hence, in this way these countries have enough supplies for their domestic market as well as gain profit out of export markets.

Activities

Activity: Prepare a chart of various channels of distribution in export marketing.

Materials Required:

1. Writing material
2. Ruler

3. Adhesive
4. Scissors

Procedure:

1. On a chart paper briefly enlist various channels of distribution in export marketing using charts . Support them with pictures.
2. Place the chart in your class.

What Have You Learned?**A. Fill in the Blanks**

1. _____ are non-profit organisations registered under the Companies Act.
2. _____ is the result of Uruguay Round of negotiations.
3. Canalized items are exported through _____ agencies.
4. _____ shows the details of goods contained in each parcel / shipment.
5. Marketing is a strategy, it is not confined to sales, _____ and _____.

B. Subjective Questions

1. What are the functions of EPC?
2. Describe about WTO and give its functions.
3. List various documents needed for export marketing.
4. What are the various channels for trade distribution?

Session 4: Various Payment Terms and Export Finance Management

The fast growing expansion in international trade cannot be fulfilled without efficient and on-time payments. Non-payment or delays in payment for imports could result in limited credit facilities and create liquidity problems for many export houses. Maintaining interest of both sellers and buyers is an ideal payment method. Exporters often try to use payment methods that are inexpensive to the buyer. These include: consignment sales, open accounts, and documentary drafts, in which the seller gets paid only when the items have been received or sold by the overseas wholesaler or retailer. It is also necessary to consider credit insurance and other protections.

In this chapter we will study about various payment methods of export marketing namely Cash-in-Advance, Letter of Credit, Documentary Collections, Open Account, Consignment and how these payment terms work with respect to export finance management.

DIFFERENT TERMS OF PAYMENT IN EXPORTS

1. CASH-IN-ADVANCE

This method of payment requires the buyer to pay for the goods before shipment is received. This method is risk-free for the seller as there is no risk of bad debt or delayed payments. Advance payment is an important condition before shipment. In this situation the sellers usually require advance payment especially in cases where the buyer has poor credit worth or the conditions involving political and economic reasons are unknown or unstable. Cash in advance is sometimes used among the known/recognizable companies. Advance payments can also be made for acquiring product samples sometimes. The important modes of payment for export marketing in case of cash-in-advance are wire transfers and credit cards.

The buyer is somehow not attracted much to this type of method as it creates unfavourable cash flow in the name of the buyer. Foreign buyers also have this concern in mind that the goods may not be sent if payments are done in advance. Thus, exporters who insist on this payment method as their sole manner of doing business might lose to competitors who offer more attractive payment terms to its buyers.

Features of Cash-in Advance:

- a) The cash-in-advance requires the buyer to make payment prior to the receipt of purchased goods.

- b) The terms can be associated with any sales transaction in which goods or services are not provided immediately.
- c) Cash in advance is the best payment option for sellers.
- d) It is recommended for use in high-risk trade relationships or export markets, and ideal for Internet-based businesses.
- e) Exporter is exposed to virtually no risk as the burden of risk is placed nearly completely on the importer.
- f) Cash-in-advance eliminates risk of non-payment.
- g) The exporter may lose customers to competitors over alternative payment terms.

Process of Cash-in Advance:

Step 1: Contract between the two parties for the sale and purchase of goods.

Step 2: The buyer sets up a bank Wire Transfer to its bank.

Step 3: The buyer's bank wires the amount to the seller's bank.

Step 4: The seller's bank then credits the payment amount to the seller.

Step 5: The seller finally releases the goods for shipment.

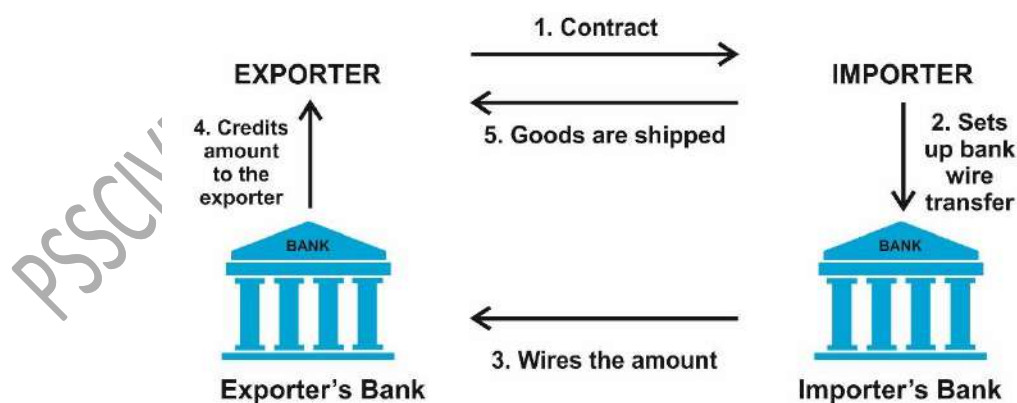


Fig.: 1.6–Process of Cash-in Advance

2. LETTER OF CREDIT (L/C)

Letter of Credit (L/C) is one of the most secure and commonly used methods available to international traders. An L/C is a commitment by a bank on

behalf of the buyer that payment will be made to the exporter, provided that the terms and conditions stated in the L/C have been fulfilled, by verification through the presentation of all required documents. The buyer establishes credit and pays his/her bank to render this service. A L/C hence, becomes useful when reliable credit information about a foreign buyer is difficult to obtain. However, this approach incorporates the seller's contentment with the buyer's foreign bank's creditworthiness. A letter of credit also protects the buyer by deferring payment until the goods are delivered as promised.

In all types of letters of credit, the buyer arranges with the bank to provide finance for the exporter in exchange for certain documents. The bank makes its credit available to its client, further the buyer in consideration of a security that often includes a pledge of the documents of title to the goods, or placement of funds in advance, or of a pledge to reimburse with a commission.

Features of Letter of Credit (L/C)

- a) A letter of credit is provided in exchange for security, which might include the buyer's fixed deposit, bank deposit, or other assets.
- b) Certain fee is charged by the bank depending on the type of letter of credit.
- c) Guidelines are issued by International Chambers of Commerce (ICC) for any form of Letter of Credit.
- d) As only documents are exchanged and no goods and services are involved in this process, therefore, mentioned details in letter of credit should be correct including the name of seller, date, amount, product name and quantity, etc.
- e) Banks have the authority to deny the payment, if they find any slightest mistake in the buyer's name, product name, shipping date, etc.
- f) As all parties deal in documents only and not goods and services, so the payment will not depend on the defects in goods and services, if any.

Parties involved in the Letter of Credit (L/C)

- a) **Applicant:** The buyer in the business transaction.
- b) **Beneficiary:** The seller of products and services and the eventual recipient of payment. For the letter of credit to be completed, the beneficiary must supply all needed papers.
- c) **Issuing Bank:** If all of the papers submitted are in conformity with the letter of credit, the issuing bank assures the recipient that the payment will be made. The beneficiary's documentation must also be examined by the issuing bank. It is fully responsible to pay once all of the L/C terms and conditions have been met.

- d) **Advising Bank:** The advising bank provides guidance to the recipient and assists him in utilising the letter of credit. When the issuing bank makes the payment, it pays the recipient. It is also in charge of sending the needed paperwork to the issuing bank. The advising bank has no obligation to pay if the issuing bank is unable to pay the beneficiary.
- e) **Confirming Bank:** The confirming bank verifies the letter of credit and takes on the same responsibility as the issuing bank. The advising bank is usually the confirming bank. Before confirming the L/C, the confirming bank conducts a thorough examination of the country and the issuing bank.

Process of Letter of Credit (L/C)

Step 1: The applicant or the buyer approaches the desired bank for the issue of letter of credit. This bank is known as opening or issuing bank.

Step 2: There will be an advising bank (usually an international bank) for the beneficiary or seller that will receive the Letter of Credit been issued by the issuing bank of the buyer. The advising bank will also examine the letter of credit's validity by looking at the name, product information, and so on.

Step 3: Advising bank will share the letter of credit with the seller by assuring him/her that the money shall be received, as banks are now involved in this process.

Step 4: Post seller assurance, the goods will be shipped as per the details mentioned by the buyer or applicant. The seller will now receive the bill of lading as the seller has already exported the goods.

Step 5: The buyer must now provide the Bill of Lading to the Nominated or Negotiating bank (International bank), which will examine all shipping papers to ensure that all products were sent in accordance with the instructions. Finally, the seller or exporter will be paid by the nominating bank.

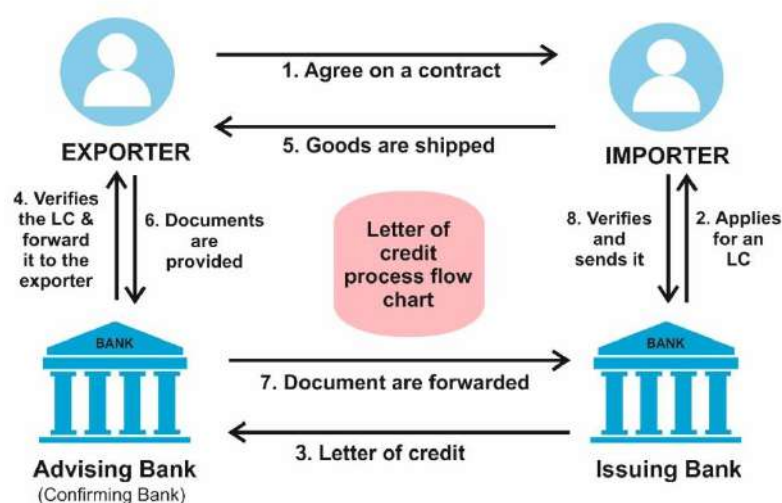


Fig.: 1.7 – Process of Letter of Credit

Step 6: Further the nominating bank will share the shipping documents with the issuing bank and will demand payment.

Step 7: Issuing bank will further share the documents with the buyer, seeking the approval whether all documents are correct, as per the buyer's information and all the products are shipped or not.

Step 8: The buyer now does the payment to the issuing bank and further the issuing bank sends the payment to the nominated or negotiating bank.

Standard Forms of Documentation for Letter of Credit (L/C)

When paying for a product on behalf of a customer, the issuing bank must ensure that all documents and drafts adhere to the letter of credit's terms and conditions. The most common documents that must accompany the draft include:

- a) **Commercial Invoice:** It comprises a description of the item, the price, the FOB origin, as well as the buyer's and seller's names and addresses. The information provided by the buyer and seller must match exactly what is specified in the letter of credit. Unless the letter of credit specifically states otherwise, a generic description of the merchandise is usually acceptable in the other documents.
- b) **Bill of Lading:** This can be defined as a document having evidence of the receipt of goods for shipment and issued by a freight carrier engaged in the business of forwarding or transportation of goods. The document features control of goods. They also serve as a receipt for the merchandise shipped and as evidence of the carrier's obligation to transport the goods to their proper destination.
- c) **Warranty of Title:** A warranty is one which is given by a seller to a buyer of goods stating that the title being conveyed is good and that the transfer is correct. This is a method of certifying clear title to transfer the product. It is generally issued to the purchaser and issuing bank expressing an agreement for indemnifying and holding both parties harmless.
- d) **Letter of Indemnity:** Specifically indemnifies the purchaser against a certain stated circumstance. Indemnification is generally used as assurance when shipping documents will be provided in good order according to availability.

Basic Types of Letter of Credit

There are several types of letter of credit, which are stated as follows.

- a) **Revocable L/C** - Revocable L/C is one which can be cancelled or modified at any time without notice to the beneficiary. In this type of L/C, the issuing bank reserves the right to withdraw, cancel or modify the credit, at any time. It might be revoked before the goods are dispatched.
- b) **Irrevocable L/C** - This type of L/C is preferred over revocable letter of credit. In this type, once the L/C is accepted by the exporter, it cannot be cancelled or modified by the buyer or issuing bank without prior permission of the beneficiary and other parties involved such as confirming bank.
- c) **Confirmed L/C** - When it is necessary for an irrevocable credit to be confirmed for the beneficiary by another bank other than the issuing bank, a confirmed L/C is issued by the second bank. It acts as an agreement that the second bank will pay the seller if the issuing bank fails to do so.
- d) **Unconfirmed L/C** - As the name indicates, Unconfirmed L/C is one to which confirmation is not added by the advising bank. Therefore, the bank does not accept the liability to make payment. The risk of non-payment is high.
- e) **With Recourse L/C** - In this type, the exporter is held liable to the paying/negotiating bank, if the draft/bill drawn against L/C is not honoured by the importer issuing bank. The negotiating bank can make the exporter to pay the amount along with the interest, which it has already paid to the beneficiary.
- f) **Without Recourse L/C** - It is popularly known as sans recourse L/C. This L/C is without the condition. In case the bill is not honoured by the importer and the negotiating bank has already paid to the exporter, the negotiating bank cannot ask the exporter, to refund the amount. The negotiating bank can take recourse to the opening bank and the opening bank can demand money from the importer.
- g) **Revolving Letter of Credit** - The importer opens a L/C with substantial amount for a specific period in favour of the exporter. The exporter can make one or more shipments and withdraw payment against the original L/C. This L/C is suitable when there is regular flow of trade activities between the importer and exporter.
- h) **Transferable L/C** A transferable L/C is one which contains an express provision that the benefits under it may be transferred either fully or

partly to one or more parties. In our country, such L/C can be transferred only once and that too within the country.

- i) **Red Clause L/C** -It is a special clause incorporated in red ink in the documentary credit, which authorizes the negotiating bank to grant advances, on the receipt of full set of shipping documents. The exporter receives payments from his bank on the submission of shipping documents.
- j) **Back-to -Back L/C** - It is a domestic L/C which is an ancillary credit created by a bank based on a confirmed export L/C received by the direct exporters. The direct exporter keeps the original L/C with the negotiating or some other bank in India, as a security, and obtains another L/C in favour of domestic supplier. Through this route the domestic supplier gains direct access to a pre-shipment loan based on the receipt of domestic or back-to-back L/C.
- k) **Traveller's L/C** - This type of L/C is issued to a person who plans to visit foreign countries. Up to the amount mentioned in L/C, the person can draw cheques which the banks will honour.
- l) **Clean L/C** - A clean L/C is one in which payment is made to the beneficiary against a clean draft. The bank does not put any condition as regards to the acceptance and payment of bills.
- m) **Stand by L/C** -This type of L/C differs from other types by the fact that the buyer and seller hope it will never be drawn upon. They are often used as security for open account trading where the seller requires some kind of back-up if the buyer fails to pay for the goods. They normally require the issuing bank to make payment to the seller upon presentation of documents evidencing non-payment by the importer.
- n) **Documentary L/C** -Most of the L/Cs are documentary L/Cs. Payment is made by the bank against delivery of the full set of documents as laid down by the terms of credit.
- o) **Green Clause L/C** -The green clause L/C in addition to permitting packing credit advance also provides storing facilities at the part of shipment. Green L/Cs are extensively used in Australian wool credits.
- p) **Fixed L/C** -A fixed L/C is one which is issued for a fixed period and fixed amount. The exporter can draw the bills up to the given amount within

the given period, the L/C stands terminated when the amount is used up within the given period.

3. DOCUMENTARY COLLECTIONS (D/C)

A documentary collection (D/C) is a transaction in which the exporter entrusts the collection of the sale payment to its bank (remitting bank), which then sends the documents required by the buyer to the importer's bank (collecting bank) with instructions to release the documents to the buyer for payment.

In exchange for those papers, funds are obtained from the importer and given to the exporter through the banks participating in the collection. D/Cs are a type of drafts that compels the importer to pay the face amount either immediately (document against payment) or at a later date (document against acceptance). The letter provides specifies the documents required for the transfer of title to the goods. Banks act as facilitators for their clients. In case of non-payment, D/Cs do not offer any verification process and limited recourse. D/Cs are generally less expensive than L/Cs.

Features of a Documentary Collection (D/C)

- a) It is recommended to use D/Cs as mode of payment for established trade relationships, stable export and transactions that involve ocean shipments.
- b) The terms of D/C are more convenience and cheaper for the importers compared to L/Cs, therefore it can result in risk for the exporter.
- c) The importer is legally bound to pay for goods before shipment.
- d) The exporter's bank (remitting bank) and the importer's bank (collecting bank) play an important role in D/Cs.
- e) Banks assist in obtaining payments.
- f) The process is easy, fast, and cheaper than L/Cs.
- g) As the role of the banks is limited, they do not provide guarantee for payments.
- h) Banks do not verify the accuracy of the documents. So there are chances of fraud.

- i) Goods are more difficult to control under air and overland shipments.

Uses of Documentary Collections

The D/Cs should be used only in following conditions:

- a) When the exporter and importer share a well-established relationship. This decreases the chances of fraud.
- b) When the exporter is assured and knows that the importing country is both politically and economically stable.
- c) If an open account sale is considered risky, and an L/C is unacceptable to the importer then the exporter can use documentary collection as payment mode.

Types of Documentary Collection

Documentary collections fall into two basic categories, which depend on the payments made to the exporter:

- a) **Documents against Payment (D/P)**–In this type of D/C ,the payment must be made to the bank when the buyer is gets the draft before release of any kind of shipping documents. This is the most common form of D/C as it reduces the risk of the seller.
- b) **Documents against Acceptance (D/A)** – This type of D/C requires the importer to pay on a pre-decided specified date. Once the buyer accepts the time draft, the bank releases the documents to the buyer.

Process of Documentary Collection

Step 1: Documents are received by the exporter in exchange of shipment of goods to the importer.

Step 2: These documents are then presented along with the instructions in front of the bank in order to obtain payment.

Step 3: The documents are sent to the importer's collecting bank by the exporter's remitting bank.

Step 4: On receipt of payment or acceptance of the draft, the collecting bank releases the documents to the importer.

Step 5: These documents are used by the importer to obtain the goods and to clear them at customs.

Step 6: Once the payment is received by the collecting bank, it is forwarded to the remitting bank.

Step 7: This payment is then credited to the exporter's account by the remitting bank.

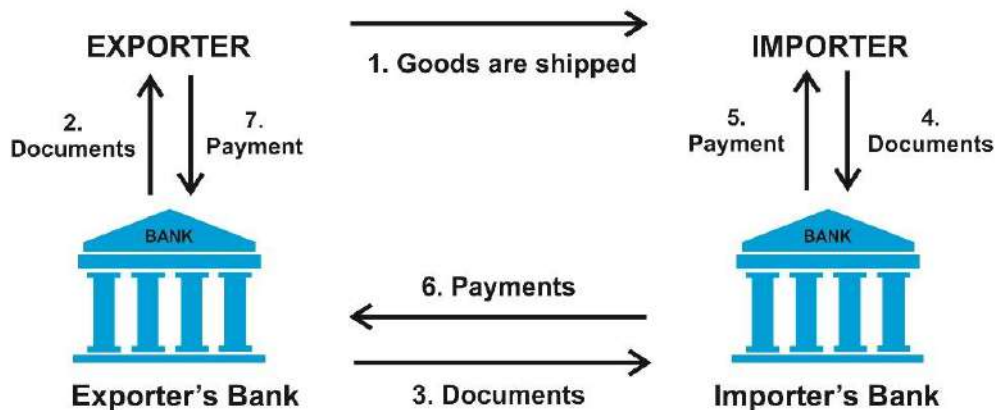


Fig.: 1.8–Process of Cash Against Document

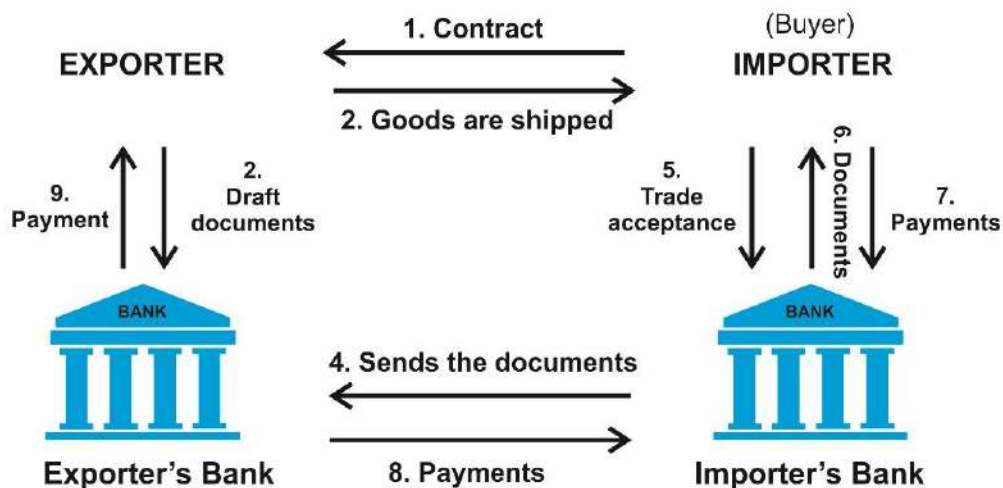


Fig.: 1.9 - Process of Documents Against Acceptance

4. OPEN ACCOUNT TRANSACTION

An open account transaction in international business is terms of sale where the goods are shipped and delivered before payment is made, for example in 30, 60 or 90 days. This payment method is advantageous to the importer as it enables cash flow and reduces cost, but it is risky for an exporter. As a result of high competition in export market, foreign buyers recommend exporters for open account terms for payment.

Various risks such as political, economic, and commercial risks as well as cultural influences must be thoroughly examined by the exporter to ensure that full payment will be received on time. Trade finance techniques such as export credit insurance and factoring can reduce the risk of open account.

Features of an Open Account Transaction

- a) Recommended to be used in low risk markets and competitive markets.
- b) This terms of payment creates substantial risk to the exporter since, the buyer can default on payment obligation after shipment of the goods.
- c) Increase competition in the global market.
- d) Helps to establish and maintain a successful trade relationship.
- e) Risk of non-payment.
- f) Additional costs associated with risk mitigation measures.

Process of Open Account:

Step 1: An agreement contract is made between the two parties.

Step 2: The seller then ships the goods to the buyer.

Step 3: After the credit period (30, 60 or 90 days), the buyer sets up a Wire Transfer to the bank.

Step 4: The bank wires the amount to the seller's bank.

Step 5: The seller's bank then finally credits the amount to the seller.

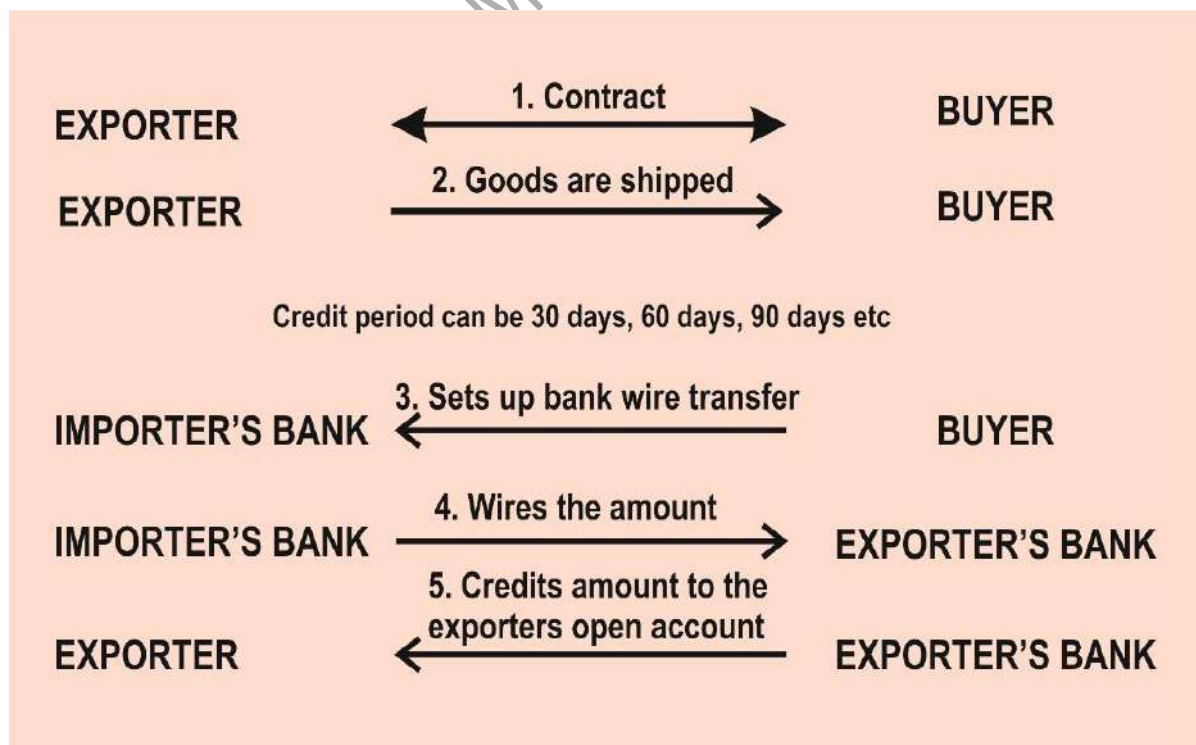


Fig.: 1.10 - Process of Open Account Transaction

5. CONSIGNMENT

Consignment in foreign trade can be defined as a variation of the open account method of payment where the payments are made to the exporter only when the foreign distributor sells the goods to the end customer.

An international consignment transaction is based on a contract between the foreign distributor and the exporter, where goods are received, managed, and sold by the foreign distributor for the exporter until they are sold. Payment to the exporter is required only for those items which are sold. Goods which are not sold on agreed time period may be returned to the exporter at cost. This type of terms of payment is very risky to the exporter as the exporter is not guaranteed with any payment and the importer gains control over the inventory.

Consignment can help exporters in competition on the basis of better availability and faster delivery of goods when they are stored near the end customer. It can also help exporters reduce the direct costs of storing and managing inventory. Consignment can definitely enhance export competitiveness.

Features of a Consignment

- This type of payment terms is recommended to enter new markets and to skim through the competitive export environments. This partnership with a reliable and trustworthy foreign distributor also increases sales.
- Consignment generates risk to the exporter as the payment is made only after the goods are sold to the end customer.
- Enhances export competitiveness on the basis of greater availability and faster delivery of goods.
- Reduces the direct costs of storing and managing inventory.
- No guarantee of payment to the exporter.
- Additional cost in accordance with risk mitigation measures.

Process of a Consignment:

Step 1: Shipment of goods to the buyer.

Step 2: The goods are received by foreign distributor or third party.

Step 3: The third party then sells the goods to the buyer.

Step 4: The third party then pays the seller for the goods.

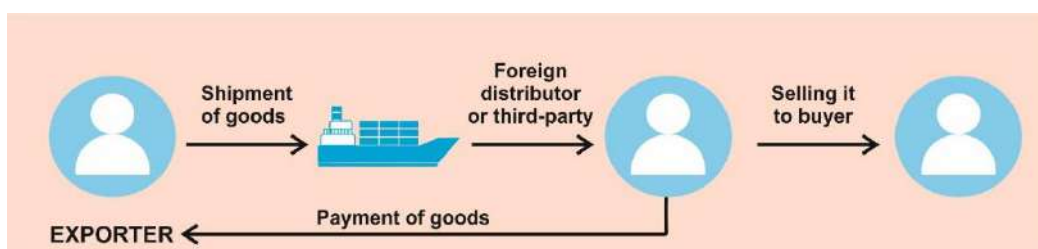


Fig.: 1.11 - Process of a Consignment

FACTORS DETERMINING PAYMENT TERMS

The following factors may affect the methods of payment or payment terms are as follows:

- a) **Credit Worthiness of the Buyer:** The method of payment may also depend on the creditworthiness of the buyer. If the importer enjoys a sound creditworthiness, then the exporter may accept the method of “Documents against Acceptance”.
- b) **Competitors Credit Terms:** The exporters also have to find out the credit terms offered by the competitors. If they allow a longer period of credit, the exporter may also follow the same.
- c) **Financial Position of the Exporter:** If the exporter’s financial position is sound, the exporter may offer a longer credit term to the importer.
- d) **Economic Situation in the Importer’s Country:** If the economic conditions are poor in the importer’s country, then the exporter may not like to offer longer period terms.
- e) **Exchange and Import Controls in the Importing Country:** The exporter has to find out whether the importer has complied with the exchange and import controls. If there are no problems in respect of exchange and import controls, exporter may give a longer credit period.
- f) **Nature of Product:** The terms of credit or the method of payment depends upon the nature of goods. For example, perishable goods would not justify a longer credit term. In case of capital goods the exporter may allow “deferred payment terms”.
- g) **Relations:** The exporter may consider trading relations with the importer. If the exporter has good relations, then he may provide longer credit terms.
- h) **Size of the Order:** The exporter also has to consider the size of the order. If the order is substantial, then the exporter may receive the money in instalments, and as such longer credit period can be given. The exporter may agree to “Documents Against Acceptance” method.

Comparison table to understand the security of export payment methods to exporter and importer

	LEAST SECURE	LESS SECURE	MODERATE	MORE SECURE	MOST SECURE
EXPORT ER	CONSIGNMENT	OPEN ACCOUNT	DOCUMENTARY COLLECTION	LETTER OF CREDIT	CASH-IN- ADVANCE
IMPORT ER	CASH-IN- ADVANCE	LETTER OF CREDIT	DOCUMENTARY COLLECTION	OPEN ACCOUNT	CONSIGNMENT

EXPORT FINANCE MANAGEMENT

The survival and growth of every business depends upon the continuous availability of the required amount of funds. This is also a requirement in export marketing. In case of export, long term funds are required at the time of business establishment and short term funds are required during the business operations. The Export - Import Bank of India and the All India financial institutions as well as State level financial institutions provide long term funds to the exporters. An exporter can approach any of these institutions to provide long term funds needed to establish their business. Commercial Banks can provide short term funds to the exporters. The Export Credit and Guarantee Corporation of India (ECGC) facilitate the grant of short-term loans to the exporters through their various credit risk insurance policies and financial guarantees.

Once the exporter has planned for the procurement of the materials required for the implementation of an export order, he has to arrange for the funds to finance the procurement of the materials and packaging of goods for shipment. There is always a time gap between the shipment of goods and the realisation of payment from the importer. The exporter would need funds to meet the requirements during the intervening period as well. The commercial banks provide funds to the exporter both before shipment (at the pre-shipment stage) and after shipment (at the post shipment stage).

Thus, the completion of the export order is linked with the mobilization of the required funds which is done through export finance management.

Therefore, to gain success in today's global market and sales against foreign competitors, exporters must offer their customers with attractive sales terms supported by appropriate payment methods. The ultimate goal for export sale is complete and on time payment. The exporter must choose an appropriate payment method carefully to minimize the risk of payment while

also agreeing to the needs of the buyer. During or before contract negotiations, the exporter must consider the method in trade is mutually desirable for buyer and seller.

Activities

Activity: Prepare flash cards on all the related terms of payment in export marketing.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive
4. Scissors

Procedure:

1. Prepare flash cards for different terms of payment in export marketing.
2. Include their features in the cards.
3. Present the cards in your class.

What Have You Learned?

A. Fill in the Blanks

1. _____ method of payment requires the buyer to pay for the goods before shipment.
2. Guidelines are issued by _____ for any form of Letter of Credit.
3. _____ transaction is where the goods are shipped and delivered before payment is due, for example in 30, 60 or 90 days.
4. _____ and _____ are types of Documentary Collections.
5. _____ can be called as the billing for goods and services.

B. Subjective Questions

1. What are the documents required for Letter of Credit?
2. Describe basic features of Documentary Collections.
3. Differentiate between Cash-in-advance and Open Account
4. Explain Consignment as payment method for Export Marketing.
5. What do you understand by Export Finance Management?

Session: 5 Organisational Policies, Procedure, Guidelines and Standards

An export business comes with a very high competition among the exporters. To win this competition and to acquire export orders, a business involved in producing export shipments is required to meet high standards in terms of the policies, procedures, quality practiced in the organisation. The organisational policies and guidelines of an export business are different when compared to the domestic business. An exporter is required to comply to various guidelines, norms, procedures and policies as stated by the buyer or as per international export standards.

Quality, plays a very crucial role in all businesses. However, in an export business, quality is the key to attract foreign business and to acquire export orders from buyers. In other words, ensuring quality is the best means of winning consumer confidence and sales. .

In the area of imports, quality standards provide a basis for assessing quality of products and services. Exporters are instructed to adhere to the standards to maintain the quality of product to be manufactured, while buyers or importers are assured that the goods are safe and meet high quality standards.

In an export business, it is also important to establish quality testing and inspection procedures along with the reporting procedures in case of any faults.

QUALITY SYSTEMS AND OTHER PROCESSES PRACTICED IN THE ORGANISATION

Quality is the level of acceptance of a product or service. It is defined as the minimum level of performance and aesthetics that a garment is expected to reflect when it goes to the customer. Quality of a product is directly related to customer satisfaction which affects the sales of a product. Failure to maintain adequate quality can result in loss to the company and can become a barrier in achieving company goals. A number of factors determine the quality of a garment. These factors depend on the perceived image of the product that a manufacturer wants to offer to his customers. Following are few such factors that determine quality of a garment

- **Performance-** A good quality garment must conform to its predetermined performance level. For example, if a t-shirt is designed for active wear, it must easily absorb moisture, get easily dried, feel comfortable and breathable.

- **Reliability** – A good quality garment must be reliable in terms of performance, durability, aesthetics and price.
- **Durability** – Similar to performance, a good quality garment must be durable and must be able to withstand regular wear and tear.
- **Visual and perceived quality-** A good quality garment is expected to conform to perceived visual features such as the drape, fit, design etc.

Quality management is an important function in an export industry. Total quality management (TQM) systems help an industry to achieve buyer's quality goals and standards. TQM plays a vital role in maintaining quality, improving productivity and reducing cost by eliminating rework. Quality Assurance and Quality management are two essential aspects of TQM in an export industry.

Quality assurance and quality control

In an apparel export industry, garments are assessed for quality in different phases of production. These garments are assessed in the pre-production phase (pre-production inspection), during production (in-line/ in-process inspection) and with a final inspection after the complete production and finishing of the garment.

Quality Assurance focuses on the process of manufacturing/ production. It builds and ensures quality in each step of manufacturing of a garment including, designing, production, shipment and retail.

Quality Control is a part of quality assurance which focusses on the product. It refers to the inspection of garment for quality at different stages of production. Quality of a garment is controlled at following different stages of garment production through inspection-

- Pre-production (Pre-production inspection)
- During Production (In-process / In-line inspection)
- Post Production (Final Inspection)

To maintain and control the quality of garment it is important to inspect the garment, keeping in mind the company standards, procedures and specifications.

Inspection as a measure for quality control

Inspection of garments refers to visual analysis of a garment for different measures of quality. The main purpose of inspection is to make sure that the garment conforms to its predetermined specifications as specified by the buyer/importer. Inspection is done to control the quality of garment at different stages of production. Checking of raw material, cut components,

under stitch and under finished parts, final packed goods, shipment cartons according to quality standards, specifications and procedures is known as inspection for quality control.

Final or post-production or pre-shipment inspection is an effective way to control and assure quality of an export shipment. It ensures that only good quality product reaches the customer. The quality of shipment packages is also assed during this inspection to avoid any potential damage to the product in transit or during shipping.



Fig.: 1.12 - Inspection for Quality Control

The acceptance or rejection of a good/package depends on the predetermined tolerance levels. These levels are defined keeping in mind the AQL (Acceptable Quality Limit).

AQL system as a tool for quality control

AQL stands for acceptable quality limit which is defined as the percentage of defects accepted or tolerated while inspection. It is the level of quality that is least tolerable to deviate from specifications. The AQL defines defects into three categories-

- **Critical-** Critical defects define that the goods/packages must be 100 per cent correct and must conform to the quality standards. Presence of critical defects makes the garment highly unacceptable.
- **Major-** Major defects define that the goods/packages might be rejected by the end user, these defects can be rectified and hence can be acceptable to certain limit.
- **Minor-** These defects define that the goods/packages slightly deviates from the specifications which the end user might not consider.

Procedure and the details of pre-shipment inspection:

For an unbiased inspection, the buyer/importer appoints a third party inspection agency to inspect the shipment before it is sent to the importer. As soon as the goods get ready, the exporter makes an application in the prescribed form giving details of the shipment to the inspection agency. Along with the application following documents are also given to the agency:

- a) Commercial invoice giving evidence of the F.O.B value of export consignment.
- b) A crossed cheque/demand draft/I.P.O (initial Public Offering) / for the amount of inspection fee.
- c) A copy of the export contract/order giving details of importer's specifications and /or a sample approved by the importer.



Fig.: 1.13 -Pre-Shipment Inspection

On receiving the request for inspection, an inspector is deputed by the inspection agency to conduct the pre-shipment inspections at the exporter's factory or warehouse.

Where the inspector, based on the packing list inspects the packages and for material, shipment stickers, quality tests. He also randomly inspects the contents of the packages for any defects. Based on this inspection, an inspection report is sent to the buyer for approval. Once approved, a certificate of inspection is issued to the exporter by the inspection agency. This certificate is required at the time of seeking customs clearance of export cargo.

QUALITY ISSUES AND ACTIONS

While inspecting the shipment, the defects are categorized into three different categories as stated in the AQL system. These defects are:

- 1. Critical Defects:** These are the most serious flaws or defects in the garment/product that might cause it to fail to fulfil necessary requirements or endanger the consumer's health and safety. Even if a single significant defect is discovered in the garment, the entire cargo or shipment might be rejected since no importer can risk endangering the lives of his consumers. The following are some of the primary reasons why a critical fault causes an order to be rejected right away:

- It endangers the health of customers.
- Affects the reputation of the distributor.
- In the case of a product recall, the brand is exposed to liabilities and needless expenditures.

Examples of Critical defects include presence of a broken needle or a sharp object, use of prohibited chemicals etc..

- 2. Major Defects:** These defects do not endanger the safety of the end-user but they do cause the garment to fail to satisfy the importer's predetermined specifications. These flaws can lower the value of a product by interfering with its intended usability, resulting in a loss of revenue when buyers return the items. If the number of these defects discovered in the shipment is excessive, the importer may request that the manufacturer hold the shipment until the defects are rectified.

Examples of Major defects includes the deviation in size of the product away from the tolerance levels.

- 3. Minor Defects:** These defects are those that occur in small numbers, have no direct influence on the product's saleability, and are unlikely to be seen by the end-user. However, these flaws fail to comply with the importer's standards.

Examples of Minor defects includes present of dirt, variation in content or quality of labels, minor shade variation etc.

On completion of pre-shipment inspection, an inspection report is prepared by the inspector. This report gives an overview of the quality of the goods and the shipment to the importer before the goods are actually shipped. The report also informs the exporter about presence of major defects if any found in the shipment. The report includes lists of defects found and the non-conformities along with the reference or standard sample. The list of tests is also mentioned in the report with supporting photographs for the deviations.

A copy of this report is sent to both the exporter and the importer. The importer examines the report and decides on the acceptance of the quality levels served by the exporter. Based on his observations, the goods are accepted, rejected or accepted with corrections for shipment.

This inspection report is handed over to the export assistant to verify whether the alterations/amendments are made to the defected packages or products. The export assistant seeks certificate of inspection from the inspection agency after the defects have been rectified and approved by the importer or buyer. This certificate of inspection is used to clear the goods from the customs.

Activities

Activity: Study different pre-shipment inspection reports and certificate of inspection.

Materials Required:

1. Writing material
2. Adhesive
3. Different inspection reports and certificate of inspection.

Procedure:

1. Visit and apparel export house and observe different pre-shipment inspection reports and certificates of inspection.
2. Based on your observations, prepare a report.
3. Submit this report in your class.

What Have You Learned?

A. Fill in the Blanks

1. _____ is the level of acceptance of a product or service.
2. _____ inspection is an effective way to control and assure quality of an export shipment.
3. For an unbiased inspection, the buyer/importer appoints a third party _____ to inspect the shipment before it is sent to the importer.
4. Presence of a broken needle or a sharp object is an example of _____ defect.
5. The export assistant seeks _____ from the inspection agency

B. Subjective Questions

1. What is TQM? How is AQL used to administer TQM?
2. Briefly explain the stages of inspection?
3. Why is pre-shipment inspection crucial before shipping goods?
4. Enlist the contents of a pre-shipment inspection report.

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Module 2**Documentation of Export Operations****Module Overview**

In any industry, it is important to keep records of important events in the production and sale of any product.

Documentation is an important factor in apparel or textile industry. Proper documentation can help finish the whole process smoothly and efficiently.

Documents serve as written evidences for all the processes starting from receipt of an order to final export of the order.

In an export industry various documents are maintained for smooth flow of production and export process. It is the duty of an export assistant to prepare all the export related documents including export certificate, certificate of origin, bill of exchange, L/C, QC certificate etc. He must have knowledge of various international trade documents.

Purchase order and shipping documents like certificate of origin, packing instruction and shipping address, specification of product, total quantity etc. must also be prepared by the export assistant.

Once, all the documents are prepared it is important for the export assistant to communicate the same to his clients, in-office personnel, vendors etc. He must communicate well with everyone involved in the trade, including the freight forwarders, consignee, agents, Director General of foreign trade, CHA (Custom House Agents) etc.

Learning Outcomes

After completing this module, you will be able to:

- Documentation related to Export Transactions
- Documents used in international trade
- Documentation related to Export Contract
- To understand purchase order and prepare commercial invoice

- Effective Communication and Co-ordination in Export Process

Module Structure

Session-1	Documentation Related to Export Transactions
Session-2	Documents Used in International Trade
Session-3	Documents Related to Export Contract
Session-4	Purchase Orders and Commercial Invoice
Session-5	Effective Communication and Co-Ordination in Export Process

Session:1 Documentation Related to Export Transactions

Export process is an important process after the goods are produced or manufactured. Each stage of the export process needs to be documented for smooth and efficient flow of work. A number of documents are prepared at each stage of production and export process.

Performa invoice, purchase order, commercial invoice, packing list, airway bill etc. are important documents which are required at each stage of export process.

Some of the documents that are required at each stage of export process are as follows:

1. Proforma Invoice-

An invoice is the seller's bill for the merchandise and it contains information about the merchandise, such as unit price in a particular country, quantity, total value, packaging specifications, terms of sale, identifying packaging, package invoice, bill of lading number, importer name and address, destination, ship name, etc.

The proforma invoice indicates the predetermined quantity of goods or products for sale by the exporter.

This information is generated in according to the terms and conditions agreed between the exporter and the importer.

COMMERCIAL INVOICE					
VENDOR/EXPORTER	Invoice Number				
	Date of Shipment				
	Letter of Credit Number				
	Currency				
	Country of Origin				
CONSIGNEE		IMPORTER			
Transportation : To : From :		Number of Packages Net Weight Gross Weight		Total Invoice	
Description	Quantity	Weight	Unit Price	Total Price	
Other Information Enter Payment terms here					Subtotal
					GST Tax Rate
					Tax Due
					Total
Signature Name : Date :					

Fig.: 2.3 - Sample of Commercial Invoice

4. Packing list- It is a document that determines the list of items enclosed in the shipment. This list can be verified with the Proforma Invoice. It is a summarized description of the contents of packages. An export packing list is more detailed than delivery note of a domestic shipment. The freight forwarder uses the packing list to create bills of lading for the shipment. Also, the bank requires a detailed packing list in the set of documents submitted to receive payment by letter of credit. A packing list is important to calculate the shipping volume and weight for freight bookings. Packing lists are attached to the outside of each container to minimize the risk of exporting the wrong goods and reveals exactly what is being shipped.

- 6. House Airway Bill (HAWB)**-House airway bill is an airway bill which is issued by a freight forwarder after receiving the goods from shipper as an agreement to deliver goods at destination.
- 7. Processing of an export order-** After confirmation of the order, the exporter must make goods available goods timely, according to required specifications and fulfil the export order as soon as possible or as per contract details.

Activities

Activity: Prepare a Commercial Invoice for exporting 1000 meter cotton fabric (Rs.10/ meter) with plain weave.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive

Procedure:

1. Observe and collect information on different commercial invoices.
2. Based on the observation prepare a commercial invoice for export order of 1000 meter cotton fabric (Rs.10/ meter) with plain weave.
3. Present and submit the same in your class.

What Have You Learned?

A. Fill in the Blanks

1. A _____ is an official document that buyers send to exporters to record the order for production of good or services.
2. _____ shows the list of items enclosed in the shipment.
3. The _____ invoice indicates the predetermined quantity of goods or products for sale by the exporter.
4. _____ is an airway bill which is issued by a freight forwarder after receiving the goods from shipper

B. Subjective Questions

1. What do you mean by Master Airway Bill?
2. Differentiate between HAWB and MAWB.

Session: 2 Documents Used in International Trade

INTERNATIONAL COMMERCIAL TERMS

International commercial terms define the transportation, money and risk sharing of international business. United Nations Convention on Contracts for the Sale of Goods (CISG) defines it as a framework of the expected transport service to be provided, which eliminates uncertainty and defines legal responsibilities in international jurisdictions. Incoterms define a place where responsibility passes from supplier to buyer. These are the most common being:

- **EXW (Ex Works)**- It is an international trade term which is used when the seller of a product agrees to make the product available at the required location and the buyer must take charge of all the transportation cost. The buyer assumes practically all transport responsibilities and the seller's only obligation is to dispose off the merchandise at an agreed time and place. It is often referred to as the factory price because it excludes all transportation related costs such as insurance and tariffs. The EXW can be complex to apply since technically it does not include the tasks related to the assembly of the load.

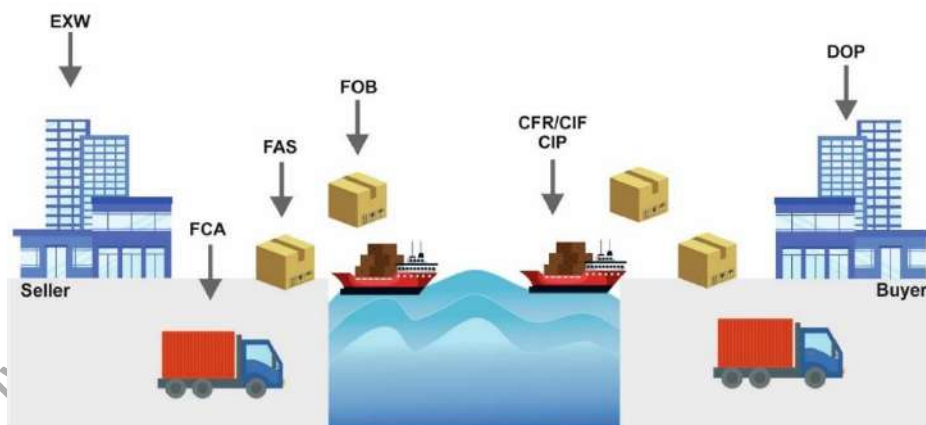


Fig.: 2.6 –International Commercial Terms

- **FCA (Free Carrier)**- This term dictates that it is seller's responsibility to deliver the cargo that has been cleared for export (duty paid) at a specified delivery point as specified by the buyer. The seller or exporter includes transportation cost in the price of product and assumes the risk of loss. Once the seller delivers the goods at the carrier, the buyer takes over the responsibility of goods. This is common for intermodal transport because the transport load has been assembled and is ready to be picked up.

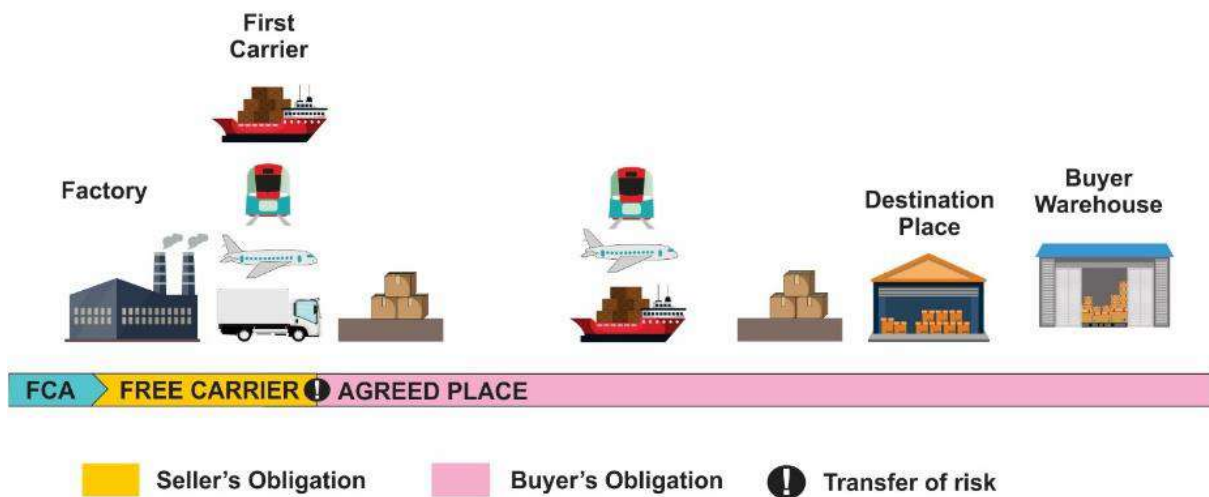


Fig.: 2.7 –Free Carrier (FCA)

- FAS (Free Alongside Ship)**- It is used for bulk ocean freight where the seller delivers the cargo to the dock. This dock is ready to be loaded onto a ship. This allows the buyer to use the point of export as a warehouse and organise distribution according to their requirements in terms of quantity and destination market.

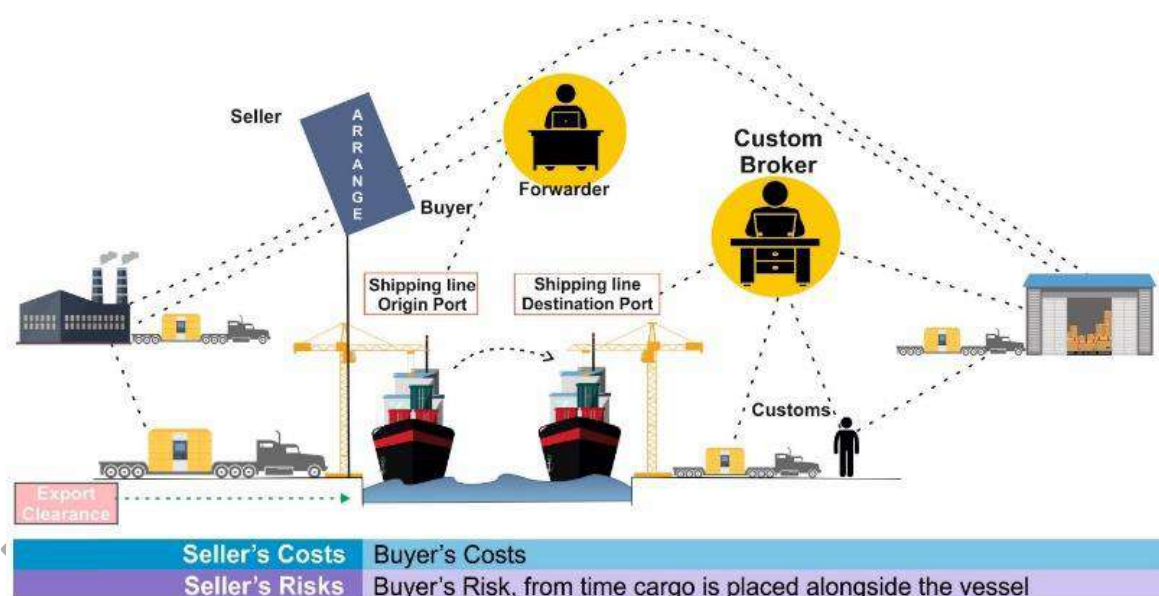


Fig.: 2.8 - Free Alongside Ship (FAS)

- FOB (free on board)**- The seller supplies and loads the cargo on a ship, which is usually selected by the buyer. It is common for bulk cargo as it allows the buyer to decide the route and the destination market, allowing additional flexibility.

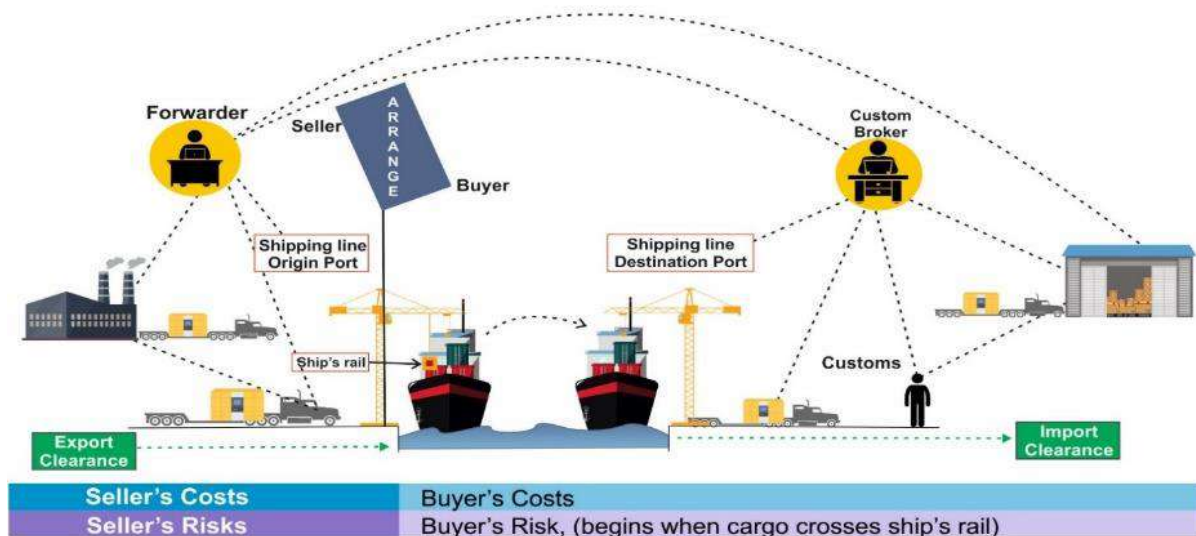


Fig.: 2.9 – Free on Board (FOB)

- **CFR (cost and freight)**- It is a legal term used in international business contracts. If a contract specifies that a sale is cost and freight, the seller has to arrange goods carriage by sea to a port of destination and provide required documents to the buyer to obtain these goods from the carrier. The buyer is then responsible for collecting the cargo.

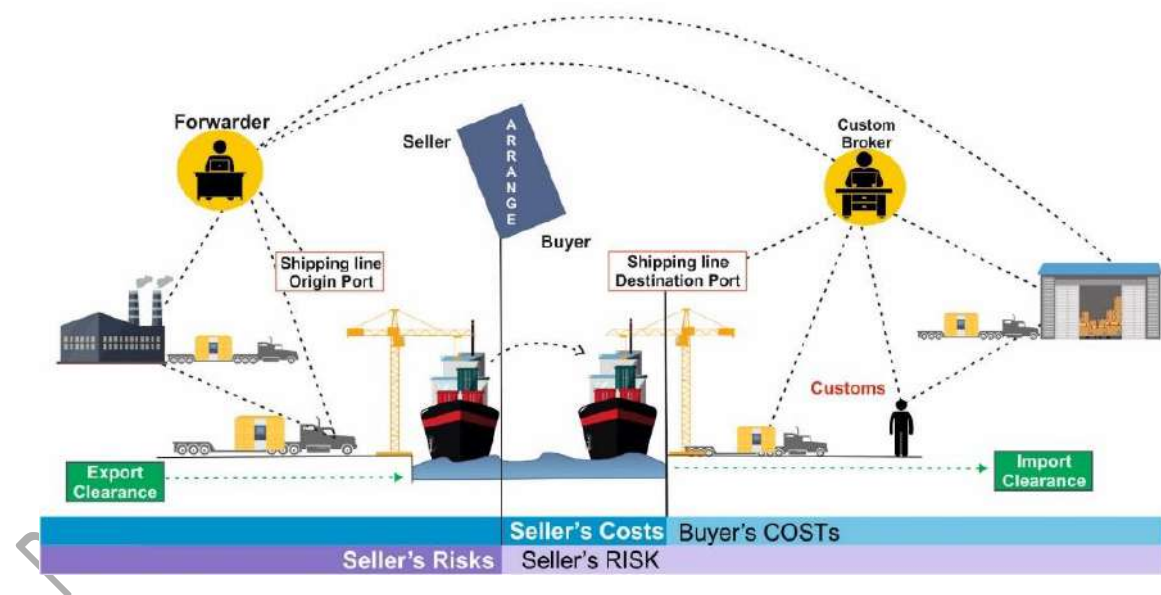


Fig.: 2.10 -Cost and Freight (CFR)

- **CIF (Cost, Insurance and Freight)**- In this, seller also provides insurance for cargo to the port of destination. This generally applies to bulk orders.

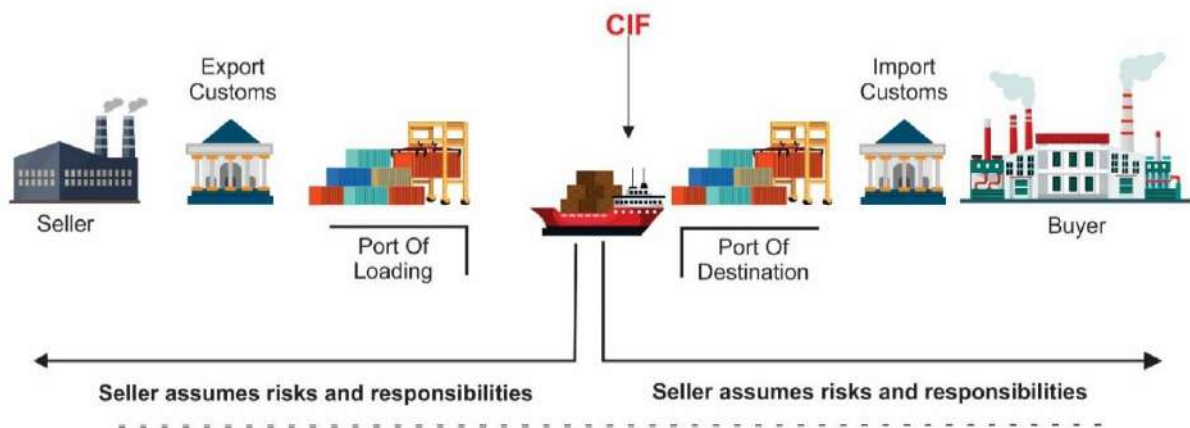


Fig.: 2.11 -Cost, Insurance and Freight (CIF)

CIP (postage and insurance paid). It is usually used in intermodal transport chains where the seller takes full responsibility for getting the merchandise to the destination point. Seller also provides insurance. Buyer is responsible for unloading the cargo. Although in many transactions it is the responsibility of the seller or buyer to transport the cargo, this task is often assigned to a shipper or third-party logistics provider who will act on their behalf.

TYPES OF BILLS OF LADING

A Bill of Lading (BL or BoL) is an agreement which is an official contract between the carrier and the shipper. It reflects all the information needed to process the freight shipment. A bill of lading also serves as a shipment receipt for the delivery of goods by the carrier at a predetermined destination. It serves as an evidence of contract between the carrier and the shipper.



Fig.: 2.12 -Roles of Bill of Lading

• Straight bill of lading

A straight bill of lading reveals that the goods are shipped to a specific person and that they are not negotiable without existing shares. This type of bill of lading is also known as a non-negotiable bill of lading. This type of bill of lading is not considered secure and is widely used for military items.

Straight Bill of Lading Original - Not Negotiable						Date:	
Ship From:						Bill of Lading No:	
SID#:				☐ FOB		Carrier Name:	
Ship To:				Location No:		Trailer No:	
CID#:				☐ FOB		Seal Number(s):	
Freight Charge Terms (Prepaid Unless Market Otherwise) ☐ Prepaid ☐ Collect ☐ 3rd Party				SCAC:			
3rd Party Freight Charges - Bill To:				Pro No:			
Special Instructions:						☐ Master BOL:	
Handling Unit		Package		Commodity Description			LTL Only
QTY	TYPE	QTY	TYPE	Weight U.	H.M. (x)	Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care	NMFC NO.
Totals							
Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows:						The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges	
The agreed or declared value of the property is specifically stated by the shippers to be not exceeding _____						Shipper Signature _____	
_____ FOB							
NOTE- liability limitation for loss or damage in this shipment may be applicable							
RECEIVED. Subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available to the shipper on request. The property described above, in apparent good order, except as noted (contents and conditions of contents of packages unknown), marked consigned and destined as shown above, which said carrier agrees to carry to destination, if on its route, or otherwise deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all bill of lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is hereby familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.							
This is to certify that the above named materials are properly classified, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the DOT				Trailer Loaded ☐ By Shipping ☐ By Driver		Freight Counted ☐ By Shipper ☐ By Driver/ pallets ☐ By Driver/ pieces ☐ By Shipping ☐ By Driver	
Shipper Signature _____ Date _____				Carrier Signature _____ Pickup Date _____			

Fig.: 2.13–Sample of Straight bill of lading

• Order Bill of Lading

This is a negotiable bill of lading in which the consignee's name can be changed with the consignee's signature. This B/L can be transferred multiple times.

• Endorsed Order Bill of Lading

It is a legal transaction where the owner of the shipped goods transfers "title" to those goods by signing their name or rubber stamping on the back of the order bill of lading.

Activities

Activity: Visit an export house and identify various documents used in international trade.

Materials Required:

1. Writing Material
2. Ruler
3. Adhesive

Procedure:

1. Visit an export House.
2. Meet and ask person from export department to provide you various documents used in international trade.
3. Identify them.

What Have You Learned?

A. Write True/False for the following

1. In EXW, buyer assumes practically all transport responsibilities.
2. In FOB, The buyer supplies and loads the cargo on a ship, which is selected by the seller.
3. A Free alongside Ship is used for bulk ocean freight where the seller delivers the cargo to the dock.
4. Straight bill of lading reveals that the goods are shipped to a specific person and they are not negotiable without existing shares.

B. Subjective Questions

1. What do you mean by straight and order bill of lading?
2. Describe any four international commercial terms.

- 3. Bill of exchange:** The Negotiable Instruments Act of 1881 defines a bill of exchange as "a written document containing an order, signed by the manufacturer, instructing certain person to pay a certain amount to the order. In this, importer has to pay for the goods received from the exporter. It is like promissory notes that can be issued by banks or individuals.

City-
Date-

₹4,00,000

Two months after date, pay to me or my order, the sum of
Rupees Four lakh only, for value received

STAMP

Accepted
(Signed)
Name.....
City.....

(Signed)
Name.....
City.....

Fig.: 2.15 –Sample of Bill of Exchange

- 4. Bank Realisation Certificate:** Bank realisation certificate is issued by a bank to its customers who are in the export business. It is given for each shipment of export products. Various export promotion agencies provide incentives, import duty exemptions, and other financial assistance to exporters. For this, these agencies require exporters to provide proof of export to claim these benefits. Bank Realisation Certificate is One of these proofs .

MINISTRY OF COMMERCE & INDUSTRY
DIRECTORATE GENERAL OF FOREIGN TRADE

e-BRC Details for Trade

Displays Maximum 200 latest records only:
Use additional filter option (e.g. shipping bill number, bill id etc) to view specific e-BRC's

IEC*		IFSC (11 digits) #	
BRC issue Form Date		BRC Date upto	
Shipping Bill Number		Shipping bill date	
Shipping Bill Port		Bill ID	
BRC Number		BCR Status	Active BCR ▼
Utilisation Status	ALL ▼	KSGSW	Enter the Captcha

Show Details Clear

* IEC is Mandatory | All dates to be provided in dd mm yyyy format only
Provide IFSC for comprehensive report, otherwise truncated version will be displayed.

In order to overcome the restrictions of few latest e-BRC records shows in online query, A new feature e-BRC Bulk Data Request is selected. User can request for complete e-BRC data in CSV format. Request will be processed offline and report will be to user on given e-Mail id.

To register Request for Bulk e-BRC data Click here

Fig.: 2.16 –Sample of Bank Realisation Certificate

- 5. Letter of credit:** A letter of credit is a document that has guarantee from a bank to entertain the draft issued by an exporter. It is done under certain conditions and up to certain amounts and beneficiary should meet the prescribed conditions. The letter of credit is shared by the importer's bank. It reveals that the importer will pay the exporter a specific amount to complete the transaction. The order is not shipped until the exporter receives this letter of credit.

Letter of Credit Example

Must be issued on bank letterhead
Must be bank issued
Must be a South Carolina banking institute

Bank Name
Bank Address

IRREVOCABLE STANDBY LETTER OF CREDIT #: PROJECT/DEVELOPMENT:
LOCATION:
CITY OF ROCK HILL PLAN TRACKING

PLACE AND DATE OF ISSUE
Address
City, State, Zip
Month Day/Year

EXPIRATION DATE/PLACE
Month Day Year (2 years from issue date) at City Hall, Planning and Development Dept.

APPLICANT	BENEFICIARY:
Name Applicant	City Of Rock Hill
Applicant Address	155 Johnston Street
City, State, Zip	Rock Hill, Sc 29730
	Attn: Dailckson

SUBJECT: Landscaping Roadway. Final Lil Sidewalk etc

CREDIT AMOUNT: \$
Amount Written Out (For example: one thousand three hundred dollars)

We hereby establish our irrevocable standby letter of credit no.....in your favor for the account of.....
..... up to the aggregate amount of USD \$(Amount Written Out).

This letter of credit is available for payment against presentation of Beneficiary's drafts all sight drawn on Bank Name Bank Address, bearing the clause "Drawn Under Bank Name Credit No..... accompanied by the following documents:

Beneficiary's signed statement reading:

The City of Rock Hill, South Carolina certifies that.....has failed to complete the required improvements: for the..... project/development and we are therefore entitled to the sum of

We hereby engage with you that the drafts drawn under, and in compliance with the terms of the credit, will be duly honored on presentation to us, on or before the expiration date.

In the event of a draw under this letter of credit, the Beneficiary is required to present the original letter of credit, including any amendments issued after the date of origin, and all other documents required by the crediting institution

Issuing Bank and Authorized Signature

Fig.: 2.17 –Sample of Letter of credit

- 6. License, Indent:** A license is an agreement and statement of terms that permits an action to be taken whereas an indent is an official order or requisition for goods. An indent is received from the buyer or the indent agencies. The exporter starts their working for an order only after receiving an indent. On the receipt of this indent the exporter applies for licence. If there is no restriction on export of goods in the indent, licence is issued to the exporter.
- 7. Acceptance of the contract”** This is a document that shows the importer's decision to purchase specific items from the exporter on mutually agreed terms and conditions. This can be done in three ways as follows:
- Exporter may send the proforma invoice to the importer in three copies. Importer accepts and sends signed two copies of proforma invoice. After confirming the offer, a contract is made. Now, exporter sends one signed copy of the proforma invoice to the importer for confirming the acceptance.
 - Another way is for importer to place a purchase order which is accepted by the exporter. Then, a confirmation follows from the exporter to the importer.
 - A contract between the importer and exporter incorporate all the terms and conditions on which they both mutually agreed upon. When both exporter and importer sign the contract, it becomes a contract.
- 8. QC (Quality Control) Certificate:** QC certificate are receptive to client's needs, specially, the need to understand a business process. These certificates ensure that business is in place. A QC certificate is issued to the exporter after third party QC inspection of the export consignment. The third party responsible for issuing QC certificate is an internationally certified and recognized firm.



Fig.: 2.18 –Sample of Quality Control Certificate

Activities

Activity: Prepare a Certificate of Origin mentioning India as origin country.

Materials Required:

1. Writing Material
2. Ruler
3. Adhesive

Procedure:

1. Observe different Certificate of Origin.
2. Based on your observation, prepare a Certificate of Origin mentioning India as origin country for an apparel export order.

What Have You Learned?

A. Fill in the Blanks

1. _____ is issued by the main controller of exports and imports.
2. A certificate of origin is required when certain goods of some countries are _____.
3. Bank realisation certificate is issued by a _____ to its customers who are in the export business.
4. A _____ is a document that has guarantee from a bank to entertain the draft issued by an exporter.

B. Subjective Questions

1. What do you mean by QC certificate?
2. Describe bill of exchange and letter of credit.

Session: 4 Purchase Orders and Commercial Invoice

An export assistant in the export house is responsible for preparing commercial invoice and other shipping documents. He must understand the contents of the required documents. One such document is a commercial invoice which is prepared based on the purchase order.

The purchase order is a written document that is sent by the importer to the exporter or seller which includes the product specification, product price, total order quantity, size breakdown, packing instructions, and shipping address, etc. The contents of a purchase order are explained as follows:

1. **Product price:** It is the agreed price that is finalised with the seller or exporter.
2. **Total Order Quantity** –it reflects the total order quantity of ordered products. This quantity is most of the times agreed quantity against the agreed price of the products. Some exporters might demand for a minimum order quantity(MOQ) to meet particular price for the product.
3. **Size Break-up:** If the order is given for assorted size range, Size break-up for the total quantity of products is mentioned in the purchase order or PO.
4. **Packaging instruction and shipping address:** The buyer generally gives instructions on the packaging. These instructions must be followed along with the standard instructions that exist, so that the packaging conforms to the recommended or specified standards.
5. **Specifications of Product:** Product specifications and details are clearly enlisted on either the PO or they on the specification sheet and techpacks attached with the PO.

6. Various Elements of a purchase order:

Labelling: Labelling is describing something in a word or short phrase. Sample or original desired labels are attached and sent with the PO.

- **Price Tag:** If this applies to the order, the placement of these tags are mentioned on the PO.
- **Care labels:** Washing instructions are also added on the PO if applicable to the order.

- **Logo design and printing:** Logo to be printed on the garment is sent along the PO. It also mentions the location of the logo or designs printed on the garment.

A commercial invoice is a commercial document that is prepared by the seller or the exporter based on the purchase order. This document is issued at the time of shipment when the documents are ready to be exported to the buyer. It contains details of buyer or importer, seller or exporter, purchase order number, specifications of the product, order quantity, agreed product price, terms of delivery, terms of payment and other details of contract. The commercial invoice includes most of the details of the purchase order with changes according to the negotiations made at later stages of processing of an export order. A purchase order is an offer of contract or sale while a commercial invoice is a document that confirms the sale of products as mentioned in the purchase order.

If the order comprises or part shipments, that is the quantity of products mentioned in the order are demanded to be produced and shipped to the importer in small parts, a PO can be a single document covering all part shipments. However, a commercial invoice is prepared individually for different part shipments separately.

An export assistant is responsible to prepare all the commercial invoices and related shipment documents.

Activities

Activity: Visit an export house and study purchase order and prepare commercial invoice.

Materials Required:

1. Writing Materials
2. Ruler
3. Adhesive

Procedure:

4. Visit an export house.
5. Meet and ask person from export department to tell you about how to make a commercial invoice.
6. Make your own commercial invoice assuming your own company and product.

What Have You Learned?**A. Write True/False for the following**

1. Product price is the agreed price that is finalized with the seller or exporter.
2. The total number of products buyer wants to purchase from the seller is total order quantity.
3. Care label means a permanent label having regular care instructions.
4. A label showing the price of an item for sale is known as wash care.

B. Subjective Questions

1. Write about various packaging instructions.
2. What are various elements of purchase order?

Session 5: Effective Communication and Co-Ordination in Export Process

COMMUNICATE AND COORDINATE WITH CLIENTS, VENDORS, IN OFFICE PERSONNEL AND OTHERS

Communication is the key to carry out effective and successful business. The process of transferring information to one person to another, within and outside is business environment is termed as communication in business. This communication takes place at different levels within the export house as well as outside the firm.

An export assistant is responsible for all export communications. For a smooth flow of work he communicates with all clients, vendors, in office personnel and others logistic and freight firms.

Tracking of vendors, their responsibilities, and the status of their contract can take time. Managing vendor relationships requires the ability to work effectively with business technology personnel. With new specialized vendors in the market, everything can now be outsourced from third party contractors. More technologists mean more complexity which will result in more time and money to manage. Coordinating with clients includes managing all technology-related vendor relationships, including:

- Phone systems
- Audio/visual
- Computer systems
- Servers
- Cloud services
- Security systems
- Video surveillance

To plan and manage an uninterrupted export process, an export assistant coordinates with all the vendors and clients through different channels which includes electronic communication through e-mail and telephone. Others channels can be in form of written communication including letters, memos etc.

COMMUNICATION WITH SUPPLIER, CONSIGNEE, AGENTS, TRANSPORTER, DIRECTOR GENERAL OF FOREIGN TRADE, FREIGHT

FORWARDERS, CHA (CUSTOM HOUSE AGENTS), DIRECTORATE GENERAL OF SUPPLIES AND DISPOSALS

Before dealing with communication with various bodies, one needs to understand them. Following is a brief introduction of all involved bodies:

- **Supplier:** A supplier is a person or business that provides a product or service to another body.
- **Consignee:** The consignee is the person to whom the goods are delivered by the carrier(ship). In most cases, the recipient is the buyer of the goods, but not always. The recipient may be the buyer's designated agent. Recipient can also be the buyer's bank.
- **Agents:** In simple terms, a person who works on behalf of another person or group is called agent.
- **Transporter:** A person or thing that transports goods/products from one place to another place is called transporter.
- **Director General of Foreign Trade (DGFT):** The Directorate General of Foreign Trade (DGFT) is a body under Ministry of Commerce and Industry of the Government of India which administers imports and exports in India. It is headed by the Director General of Foreign Trade.
- **Freight Forwarders -** A freight forwarder is a transport intermediary, operating in liner trades, who organises the export of goods from another party (by land, sea or air) and "transports" the goods under the supervision of the ocean carrier. Freight forwarders advise on the route, organise transport with a carrier (reserve space, pay freight, etc.), prepare or help in preparing customs documents, carry out customs clearance of goods, organise packing and storing the goods before shipment.
- **Custom House Agent (CHA):** A person who acts as an agent for transaction of any business related to the export or import of goods at any customs station.
- **Director General of Supplies and Disposals (DGS&D):** It is a central purchase and quality assurance organisation under Ministry of Commerce and Industry. It fixes Rate Contracts (RC) for common user items required by various Government organisations through an online portal.

To communicate with above bodies an export assistant must have a thorough understanding of the communication process and communication skills is. Communication styles change from person to person. During the communication process, a person can invoke multiple channels or modes to convey a message. But the communication process does not depend solely on the source that produces or transmits the information. It also depends on the method of communication and how the recipient understands the message.

The first step of Communication is the generation of information. The second step is to put this information or data on a transmission medium to the target audience.

During this process, the initiator of the communication must pay attention to the nature of the information. Communication skills will determine the effectiveness of communication. The different types of communication are:

- I. Verbal
- II. Non-verbal
- III. Visual

I. Verbal

It involves the use of language and words for the purpose of conveying the desired message. Generally speaking, verbal communication means communication in the form of spoken words only. But, in the context of types of communication, verbal communication can be oral or written. Therefore, the verb form can be oral or written. An export assistant communicates telephonically with clients, vendors, CHA, Freight Forwarders, in office personnel to convey and coordinate the work flow in the export process.

Written communication: This type of communication involves any type of exchange of information in written form. For example, emails, text messages, letters, reports, text messages, posts on social media platforms, documents, manuals, posters, brochures, etc. Generally, the process of acquiring export licence, B/L, and other shipping documents happens through written communication.

Oral communication: It is the communication that uses speech, direct or indirect, as a communication channel. This verbal communication takes place through a channel that transmits information in only one way, namely sound.

II. Non-verbal communication

In this type of communication, messages are transmitted without the transmission of words. The messages here are messages without words. This

form of communication primarily facilitates verbal communication. It complements verbal communication with gestures, body language, symbols and expressions.

Some of the non-verbal communication modes are:

a. Physical non-verbal communication

It is the sum total of the physically observable communication. For example, hand gestures, body language, facial expressions, tone of voice, posture, position, touch, gaze, and others.

b. Paralanguage

This type of communication is concerned with the tone of one's voice. Along with the tone of voice, other non-verbal aspects like, the style of speaking, voice quality and emotions serve the purpose of communication.

III. Visual Communication

This form of communication uses visual aids like drawings, placards, presentations, and illustrations, etc. This type of communication is not common when it comes to formal communication.

For efficient work, an export assistant needs to closely understand the use of different communication channels and must choose correct words for communication. He must ensure that his message is clearly conveyed to others. With good communication skills the export process can be completed smoothly which will result in increased productivity and reduce time and money spent on one export order.

Activities

Activity: Assuming you are an export assistant in a clothing export firm, write an e-mail to a freight forwarder to arrange shipment of an order of 5000 women's tops to Japan.

Materials Required:

1. Writing material
2. Laptop/ Desktop with internet connection

Procedure:

3. Draft an e-mail to a freight forwarder to arrange shipment of an order of 5000 women's top to Japan.
4. Mention the CBM (Cubic Meter) volume of shipment, packing list and other details.
5. Finalise the e-mail draft.

What Have You Learned?**A. Write True/False for the following**

1. Nonverbal communication involves the use of language and words for the purpose of conveying the desired message.
2. Physical non-verbal communication is the sum total of the physically observable communication.
3. Visual communication is concerned with the tone of one's voice.
4. Foreface-to-face interaction, email is the most effective mode of communication.

B. Subjective Questions

1. What points will you consider while communicating with clients?
2. Who is a freight forwarder? What are the points that should be kept in mind while communicating with freight forwarders?

Module 3**Foreign Trade Logistics and Concepts****Module Overview**

The word logistics refers to the art of transporting. An efficient trade logistic system results in sustained economic growth of any country. Logistics and International Trade involves buying goods, managing materials, controlling inventory, warehousing, transporting and distribution of goods. An efficient and effective supply chain management is feasible through logistics as it integrates the flow of materials and goods from the purchase of raw materials to final delivery of a product to the importer or buyer.

SUPPLY CHAIN MANAGEMENT

Supply Chain Management (SCM) is the process of planning, monitoring and implementing the operations of supply chain with an aim to satisfy customer requirements as efficiently as possible. SCM also includes association and co-ordination of channel associates. These could be suppliers, mediators, third-party service providers and/or end clients/customers. To sum up supply chain management is an integration of demand and supply management within and across all the entities of the industry. Supply Chain Management is a bigger umbrella under which logistics is a sub part. The SCM starts with the initial fibre supplier to consumer purchasing the product and final consumption of the product. It includes procurement of raw materials and supplies, management of inventory, product lifecycle and demand. It also depicts the association with coordination channels including partnerships with suppliers, vendor, clients etc. Supply Chain Management also includes deciding preferential pricing, lead-times and appropriate logistics.

**Fig.: 3.1 –Supply Chain Management**

Logistics

The process of planning, implementing, and regulating the efficient, effective movement and storage of products, services, and associated information from point of origin to point of consumption in order to meet client requirements is known as logistics management. It plays an important role in an industry to help move operations forward smoothly. The relationship between logistics, supply, material management and distribution that is widely accepted can be understood as follows:

$$\text{Logistics} = \text{Supply} + \text{Material Management} + \text{Distribution}$$

Logistics are mainly of two types namely inbound logistics and outbound logistics. Inbound logistics are those which are used to control the movement of raw materials and all the supplies required for the production or manufacturing of any product. Whereas, outbound logistics is the one which controls the flow of fully finished product to their final destination.

The five fields of logistics are discussed as follows:



Fig.: 3.2 – Five Fields of Logistics

1. Procurement logistics

This field deals with procurement or collection of all kinds of raw material required for manufacturing a product. Earlier this type of logistics was not considered as making any difference in cost effectiveness. But, recently manufacturers have identified the just-in-time production techniques, where the raw materials are ordered only when the production has started. This was where the cost of inventory is reduced as well as effective planning of procurements of various types of raw materials is planned and efficiently achieved. Therefore, procurement logistics is now considered as the crucial stage of planning logistics.

2. Production Logistics

This kind of logistics deals with the movement of any kind of raw materials or goods within the industry or under manufacturing process. The production process has many stages and each product undergoes various treatments before it can be called as a finished product. In this case the product needs to be carried from one workstation to other in time to avoid any delay in the production process. The production logistics can also be understood to feeding the required raw materials at each and every workstation in proper sequence in right quantity, in right quality, in right time and for the right product. The challenge of production logistics is not only transportation of goods and materials internally but ensuring the flow of smooth movement by value-added process while eliminating the non-value added ones.

3. Distribution logistics

Distribution logistics is also called as sales logistics. As the name suggests this kind of logistics is used to transport the finished goods to the wholesaler, retailer or the customer. Order processing, warehousing, and shipping are all part of distribution logistics. Since, time, location, and amount of production may differ from the time, place, and quantity of consumption, distribution logistics is critical.

4. After-Sales logistics

After-sales logistics is also called as recovery logistics, reverse logistics or Return-to-origin (RTO). The movement of the product from the customer or consumer back to the point of origin or seller or manufacturer or industry is called as reverse logistics. For example, if a person bought a t-shirt from the company 'X' but due to the sizing issues the customer would want to return the product. In this case the process of picking up the product from the customer to the manufacturer or the seller is termed as reverse logistics. The process not only includes picking up product to return the manufacturer but also packaging of the same, the shipping labels and re packaging to sell it again is also included.

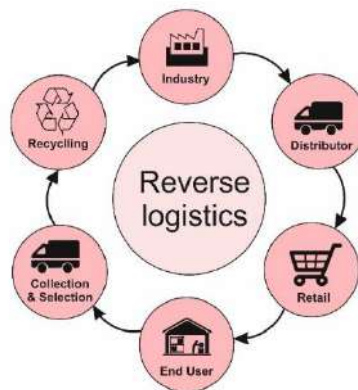


Fig.: 3.3 – Reverse Logistics

5. Recycling logistics

This is the last thread of this field. Recycling logistics is recovering and recycling empty cartons, cans, tins, containers that were used in all sorts of packaging. Once the products are delivered to their final destination successfully these cartons or tins are collected by the industry and recycled to use it again. For example, if an industry manufactures shirts and packs them in cardboard boxes, after these are purchased, these boxes are segregated and returned back where it gets recycled. This is the best example to understand a combination of reverse and recycling logistics. This not only helps the industry in maintaining its cost efficiency but also in maintaining the sustainable environment balance.

The above mentioned are five main fields which any industry needs to run the complete logistics business. However, there are few other types too like, 1PL one party logistics, 2PL two party logistics, 3PL third party logistics and 4PL four party logistics most commonly used by the industries.

One party logistics will be when an industry manufactures a product and delivery directly to the customer. For example, an apparel manufacturing unit produces kurta and sells directly in the domestic market, this is one party logistics or 1PL.

When the apparel manufacturing unit hires a transport services like tempo-traveller or small trucks to deliver the products at nearby retail stores it will be called as two party logistics or 2PL. Third party logistics provides the specialized benefits in collaboration with the industry by assisting the industry with services like warehousing or additional transportation facilities. It, to understand simply is an outsourced facility for storage or transportation of goods and making their delivery to the customer on time.

For example, if the apparel manufacturing unit hires a warehouse for storing the products and this warehouse supplies the products to the point of delivery on behalf of the industry. So that large amount of products can be delivered at various places in time, it will be called as third party logistics.

3PL is the most commonly used logistics but most of industries and it has its own specifications, like cold storage warehouses for food products, inventory warehouses which cater to delivery as well as collecting returns for the industry and according to the cost and price also varies.

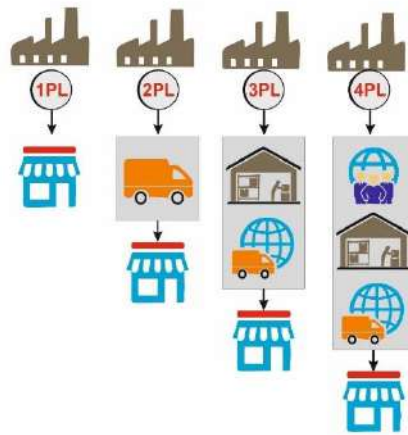


Fig.: 3.4 – Types of Logistics

Learning Outcomes	
After completing this module, you will be able to:	
- To understand different type of shipment mode - Various departments of a buying house - Payments, insurance and compliance with RBI/Bank	
Module Structure	
Session-1	Types of Shipment Modes
Session-2	Various Departments of a Buying House
Session-3	Payments, Insurance and Compliances with RBI/Bank

Session: 1 Types of Shipment Modes

The movement of the product flows smoothly because of various means of transport systems and each product requires sometimes a specific type of transportation. The selection of the mode of transport also affects the distance of the point of delivery.

Shipments are transported in three main and most common ways, those are by road, by water or by air. Each mode has its own advantages and disadvantages. The industry has to choose the best type of mode while keeping its crucial time aspect and cost-effective ness in mind.



Fig.: 3.5 – Types of Mode of Shipment

Choosing the right mode of transportation depends on various factors listed below:

- What is the shipment product?
- The cost effectiveness of the chosen mode of transport?
- What is the final destination?
- What is the quantity of the goods that has to be transported?
- Whether the product is a perishable or non-perishable item?
- What is the time duration bracket of the product to be delivered in time?
- Safety of the product in terms of its manual handling or mode transfer.
- Flexibility with pre-planned time schedules.
- The speed of the transport facility.
- Regularity of its service.
- Warehousing, packaging, loading and unloading etc.

Depending upon the above mentioned factors the industry analyses and chooses the best suitable mode of transport system. Sometimes it can be

even two or more than two transport systems combined. The three main types of logistics transport systems are as follows:



Fig.: 3.6 –Modes of Shipment

1. Road/Land transportation system

This mode of shipment is one of the earliest modes, which is most convenient for interstate or within county deliveries. Trucks are the most common vehicle used for the road or land transports other than vans or tempo which are used for transporting smaller quantity of goods in nearby neighbourhoods. This mode of shipment is cheaper as compared to other modes, however, time factor may take a toll sometime if it faces congestion in traffics on way. The time of delivery may also be compromised as the trucks require frequent refuelling.

Other vehicles popularly used are trains. This mode of transport is also quiet old and is used to transport bigger or bulkier shipments with heavy weights like, coal, grains, ore etc.. This mode is much useful when the destination is located near to a railway station. Otherwise the transport will be called intermodal as the shipment will have to be transported to the destination by loading it on trucks.

2. Shipping through sea/ocean

This mode of transportation is waterborne in nature and could carry military or commercial goods. The ships which carry the containers full of goods are called vessels. The products carried in these cargo ships or vessels are in extremely high quantities and often needs to be transported from one continent to other or from one end of the same continent to other. This is the most common mode of shipment for exporting apparel and similar products from India. Shipment through sea/ocean is cheaper than air shipment, however, it takes more time to deliver goods at destination.

3. Shipping through air

Aircrafts are the main modes of transport through air. This is the fastest mode of transportation as it does not have to face any barriers, therefore it can reach any location without any obstructions and this is the major advantage of air transportation. It is excellent shipping mode for perishable items. However this method is costly and has constraints over the weight of goods.

TRADE LOGISTICS

Garment industry has several products and goods used in various departments of the industry. Pre and postproduction involves frequent transportation of either pre-production raw materials or post-production finished goods and all has to reach at right place in right quantity in right time. For export products, the shipment must reach the buyer overseas on the agreed delivery date. This shipment is sent through various modes of shipment, multimodal transport being the widely used mode among others. Following are various types of shipment modes which are popularly used by the industries to transport the products and raw materials:

a. Multimodal Transport

Multimodal as the name suggests means multiple-modes of transportation used in order to help move the single shipment also called as cargo. Through this mode the cargo moves towards the destination faster and efficiently. It is also commonly called as combined transport. These multiple modes of transportation could be via road through trucks or tempos, trains or through sea in ships or through airplanes. Transportation will be called as multimodal transport when it involves two or more of above mentioned modes of transportation.



Fig.: 3.7 – Multimodal Transport

The major advantage of multimodal transport is that it is most effective blend of multiple means of transport, at the same time it optimises targets with dead-lines. It also reduces on inventory costs, thereby keeping the expenses of the merchandise under control. Multimodal Transport minimises the environmental impact of transportation, therefore the combination of these results in high environmental sustainability.

a. Containerisation

It is a system of intermodal transportation. Containers are shipping containers which have standardised dimensions, used to load or unload and transport products from one place to another. These containers can be stacked and can be used to transferred from one mode to shipment to another without being opened. Containerisation is a system of using containers for shipping products from one place to another without being opened. For example, if a container is packed at the industry and loaded on a truck, the truck carries the container to the cargo ships also called as vessels, these are custom built to carry containers. While the container reaches the vessel port, with the help of cranes these containers are lifted from the trucks and loaded on the ships. This method helps to reduce direct handling of the products which in-turn makes it secure, reduces and chances of damage or loss of quantity. It is faster and safer than tucks and therefore also contributes to cost efficiency.

Containers can be carried by trucks and ships as discussed above or by trains most commonly called as well cars. Well cars are specially designed in the shape and size of containers. The special design helps containers to sit securely in the mould. These are called as well because it is in a shape of mould just like a well. This well is placed very close to the wheels to maintain and balance the weight of the containers. The containers can be stacked into the well as single or double stack. In the case of double stack the containers are secured with the well car either by the inbuilt interlocks or by inter-box containers.





Fig.: 3.8 (a & b) – Containerisation

Trucks are most commonly used to connect the transportation and transfer the container to a vessel or cargo ship or well-car or flatcars. These trucks run between the railway terminals or an ocean port known as drayage.

Cargo ships are used to ship these containers overseas. These ships have a capacity of carrying thousand containers at one time.

b. Maritime Transport

Maritime transport or ocean transport as the name suggests is waterborne transportation mode. Freight transport system is widely used for inter-continental transportation or long distance destinations with ports nearby. Water transport is cost effective as compared to air transport. Maritime transport is extremely cost effective when there are heavy loaded containers or shipments or bulk shipping. Although it is proven cost effective it is not suitable for perishable products in case of time crucial delivery.

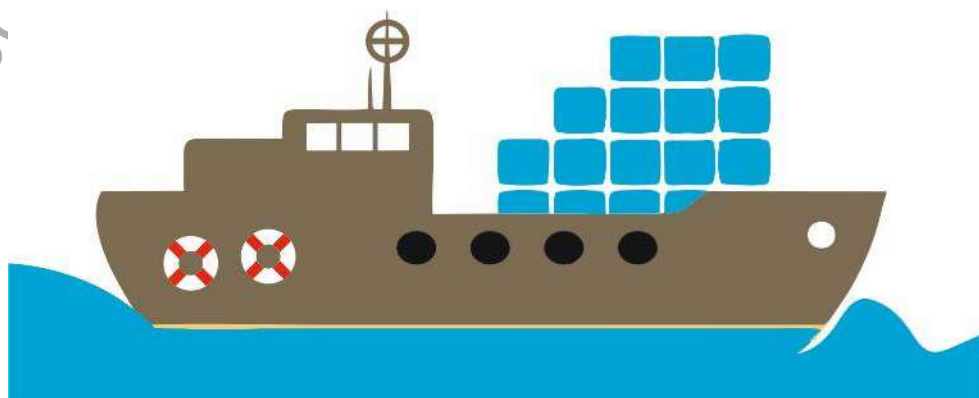


Fig.: 3.9 - Maritime Transport

c. Inland Container Depot

Inland Container Depot also abbreviated as ICD is container storage and handling facility located at inland points away from the vessel ports or railway stations. These depots assist exporters and importers to manage and control their shipment processes near their location.

d. Cargo Freight Stations

These stations are places where the containers are consolidated or de-consolidated between transportation. This process is helpful to keep a track of all the containers to be shipped and to reach the destination in time. Cargo freight stations (CFS) basically acts as a staging area for all the import and export containers. For Less Than Container Load (LCL) shipments cargo freight stations are responsible for custom examinations and clearance procedures. It is the responsibility cargo freight station to pack the items with other LCL goods in one container.

The location of the CFS is kept near railway stations or vessel ports or huge warehouses because after reaching the destination when the shipments are de-consolidated it is either transported by trains or trucks or it is picked up by individual customers or consumers. The collection of goods requires a delivery order or permission to receive/collect the shipment and a custom clearance form in order to indicate that the goods are allowed in the country.

e. Buying House

Buying house is a medium between the manufacturer and buyer. Buying houses can be of two types namely buying agencies or buying offices. Buying agencies are buyer's independent regional offices. On the other hand buying office is a place which works with different buyers and brands.

Role of Buying Houses in Garment Industry

There is a range of services that buying houses offer in apparel industry. The most important role it plays is in the selection of appropriate factories and industries for the customer and the products. It also manages ethical audits for the buyer. Buying house also inspects the quality of the product to be sold. It also consolidates the packages, so that the bigger shipments can be operated and services from multiple sources can be provided to the buyer. Buying house also helps in sourcing and procuring the materials required for manufacturing. All the payments of the shipments are also managed by the buying house.

Functions of the Buying House

- a. Collection of orders from the buyer,
- b. Sourcing good suppliers (native factory) to fulfil the order,
- c. Processing of orders from local factories,
- d. Creation of product development mock-ups for buyers,

- e. Communicating with buyers for obligatory approvals,
- f. Accelerating all the comments and authorizations to the factories,
- g. Following-up on order processing according to buyer's demand,
- h. Maintaining product quality from sample to production,
- i. Follows inspection terms and conditions according to buyers demand,
- j. Shipping of the goods

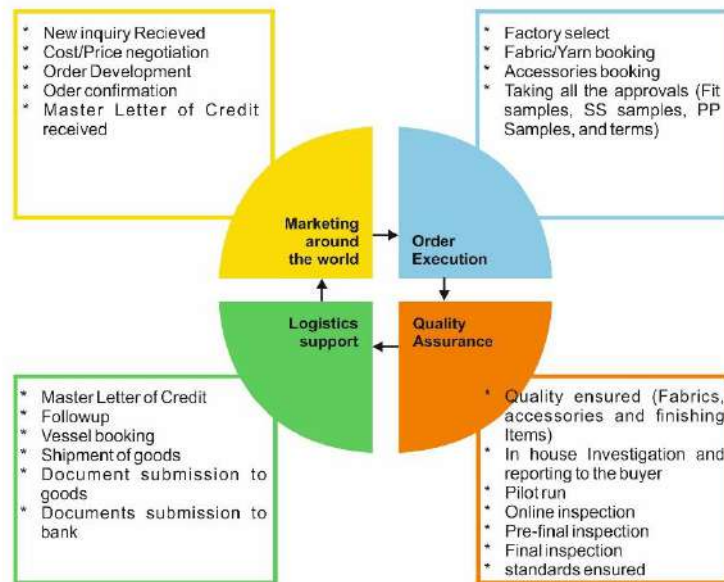


Fig.: 3.10 - Functions of Buying House

INTERNATIONAL TRADE LOGISTICS

International shipment logistics is much challenging as compared to domestic shipments. The process of clearing all the stages before the shipment finally reaches its destination is lengthy. Export shipments require special attention as it requires various export procedures and documentation. Before shipping an order overseas there are few important things to keep in mind. The logistics team including the export assistant must understand the needs of the clients/buyers carefully before processing the shipments. For example, the buyer may specify whether they want it faster, whether they want their shipment to be insured and lastly above all are they willing to pay the higher prices for all the overseas shipment process. Carrier or freight forwarder plays a very important role in international trade shipping. Carriers are the people who help to process the shipment at various stages to make it reach its destination securely and in time. Carriers can be any companies who help move shipments from one location to the destination. For export shipments the buyer may appoint a third party freight forwarder which is attached to the buying house or the buyer may ask the exporter to manage and coordinate with their freight forwarders. The second most important thing is to get in place all the

required documents. Various shipping documents including the export licence are prepared and forwarded by the export assistant.

Any export or import order involves transportation of products overseas via air, sea and or road transportation. This transaction depends on various documentation and flow of information across all involved agencies including the logistic agencies. In international trade the transactions are smoothened and standardised across all the countries with introduction of **incoterms** which were published by ICC (International Chamber of Commerce).

Incoterms are standard terms of trade that define the rights and obligations of the firms involved in the trade (buyer and seller). It dictates the responsibilities of the buyer/client and seller/exporter. These responsibilities define the cost aspects involved in the trade transactions including carriage, custom, duties, insurance etc. Incoterms are divided into four groups as follows:

1. **Group E:** This group contains only one incoterm namely EXW which represents minimum liability on the part of the seller.
2. **Group F:** It consists of FCA, FAS and FOB terms where seller arranges for pre-carriage expenses and the main carriage as well as destination charges are borne by the buyer.
3. **Group C:** It consists of CFR, CIF, CPT and CIP terms where seller arranges and pays for transportation but does not take any risk.
4. **Group D:** it consists of DDU (Delivered Duty Unpaid), DDP (Delivered Duty Paid) and related terms where the sellers assume all or most of the risk and takes responsibility to deliver the goods at the destination.

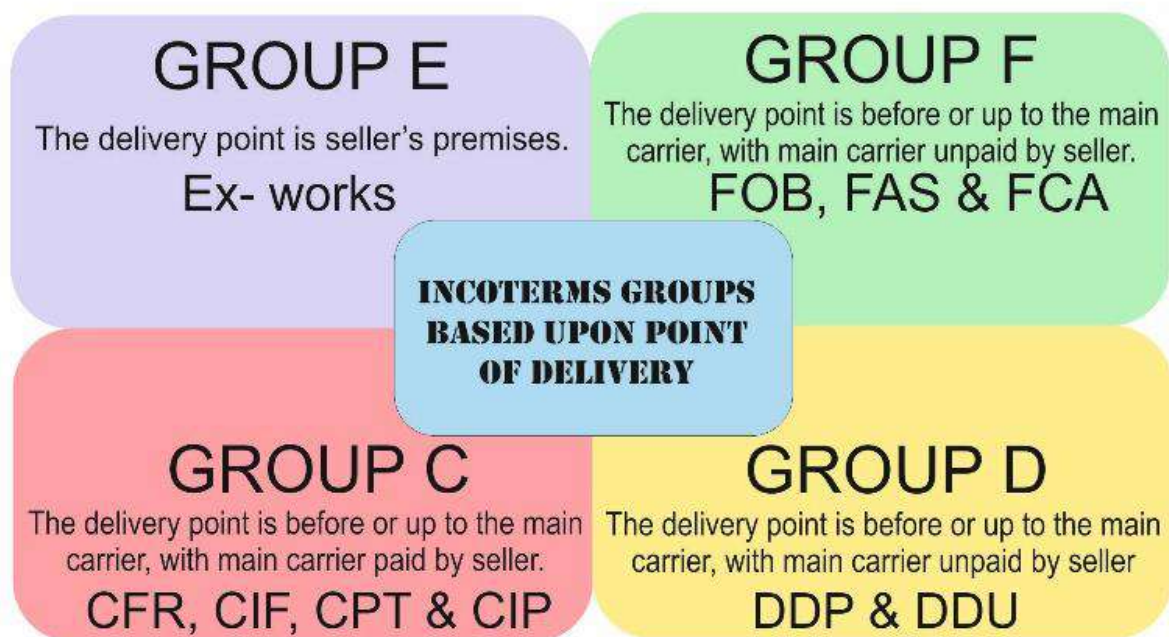


Fig.: 3.11–Categorisation of Incoterms

Activities

Activity: Prepare a report about incoterms and note its types and importance of each.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive

Procedure:

4. Based on your understanding about incoterms prepare a report including the types and importance of incoterms.
5. Support your explanations with the help of flow charts and images or illustrations.
6. Submit the report in your class.

What Have You Learned?

A. Write true/false for the following:

Right type of shipment depends on -

1. Who is the exporter?
2. What product has to be shipped?
3. Brand of the shipment company
4. Time and date of shipment
5. What is the final destination?

B. Match the following:

1.	Inland Container Depot	i.	multiple-modes of transportation
2.	Land/road transport	ii.	International Chamber of Commerce
3.	ICC	iii.	Trucks or trains
4.	Marinetime	iv.	Container storage and handling facility
5.	Multimodal	v.	Sea/ ocean transport

B. Subjective Questions

1. Write in your own words importance of logistics in business.
2. Write difference between 1PL, 2PL, 3PL and 4PL logistics.
3. Define buying house and recreate the functions of the same in a matrix.
4. Why do you think international trade logistics is challenging than domestic trade logistics?

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Session: 2 Various Departments of a Buying House

Buying house as discussed in the previous session, is a connecting link between the customer and manufacturer. It is the duty of buying house to help customers reach right product with right quality and right quantity. It can sometime be finished goods or raw materials and this totally depends upon what the customer is seeking. Apart from working on the specifications given by the customer, buying house also plays a very important role in developing their own designs and products for their customers to choose from. Following are various departments of a buying house where each product undergoes the process right from design idea to a fully finished product:

1. Design and product development

Design department can be called as the research and development unit. The story of a product is conceptualised and its prototypes are then created in this department. There are three main stages which help the designers to create a collection.

i. Trend Forecasting

Buying houses may cater to domestic or international customers. Forecasting of fashion trends is first and foremost step in planning a collection. Forecasting helps designers to understand the future of fashion. Trends are forecasted by trend forecasting firms and studios who research the fashion cycles through years and come up with new trends or by revamping the trends happened in past. The trends are highly accurate predictions of fashion accessories, footwear, garments, silhouettes, colour, prints, and all other related industries. They generate a very comprehensive report of trends eighteen months in advance. This advance forecasting helps the industry to launch the collections in the market at the right time.

Designers in this department create swatches of fabrics, colours, prints, embroideries, or any other texture or surface treatment as sample for mass production. These swatches and samples are saved as a library for reference. Each sample created is labelled with a unique code. Coding of the samples help designers to find specific pieces faster and also helps to organise these materials.

ii. Designing

Once the fashion forecast report is generated, designing is the next step. Designing starts from conceptualising ideas keeping the forecast in mind. Designers create mood boards, inspiration boards, to mind map the possibilities of ideas for collection development. Mood board is a collection of inspirational ideas. It helps designers to analyse and create the final elements that would be used in collection development. The final

elements are then put on story board and are further analysed to pick up elements like silhouette, print-pattern, colour, and accessories. Lastly colour board is finalised which then leads to the actual designing of the product.

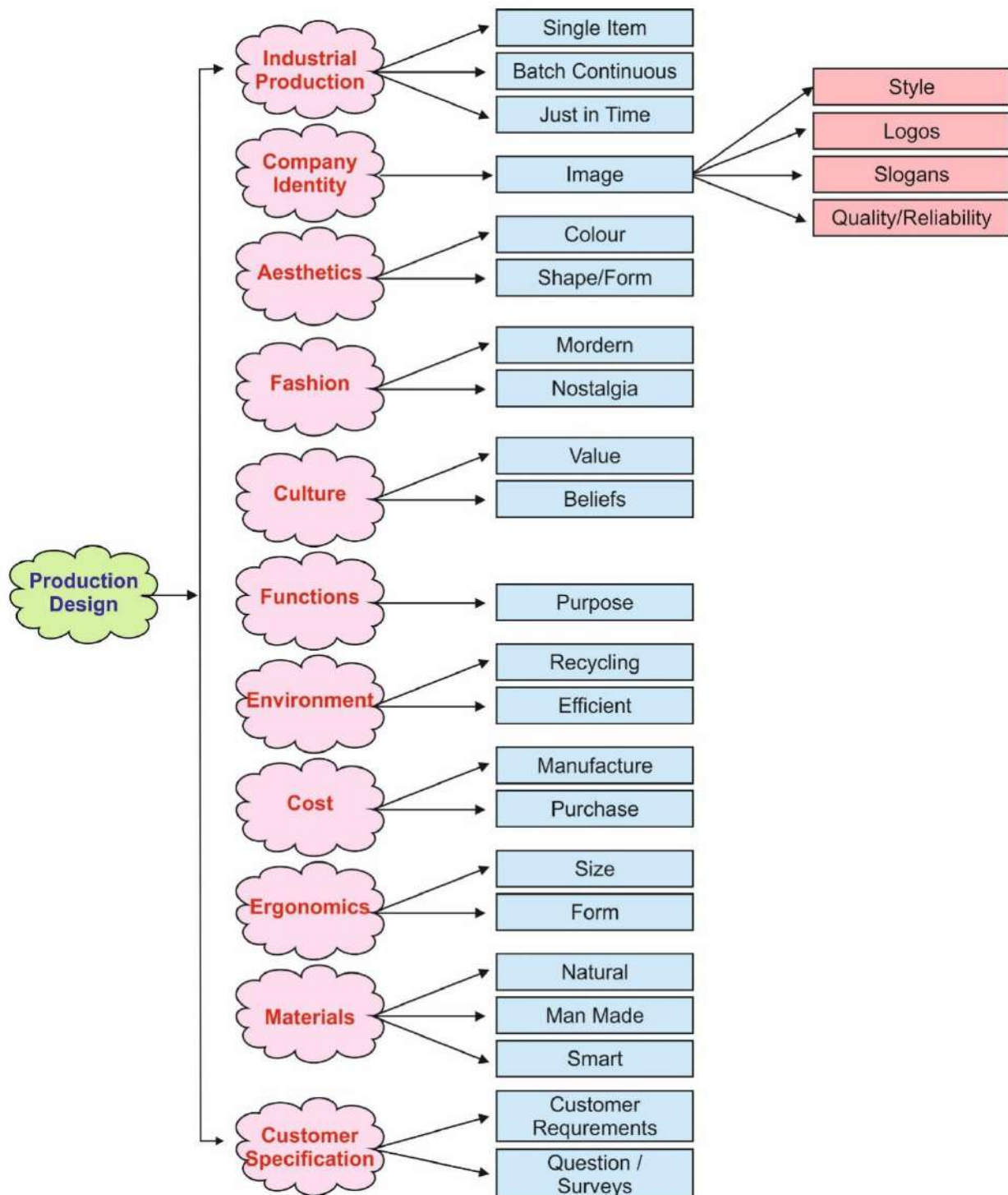


Fig.: 3.12 - Factors that Influence Product Design

Each designer have their own way of designing, some work with hand drawn sketches, some work with fabric and drape it on dress form or

some use Computer Aided Designing (CAD). Use of CAD is much popular now-a-days due to its versatility in designing prints, adding textures, creating pattern and its variants in very short time. Flexibility, production time and cost effectiveness are the key considerations of any product design.

iii. Collection planning

The third phase in this process comes that of collection development. Once the designing of the garments and accessories is done. All the designs are laid together and crucially analysed to select designs to compose a designer collection. The designer works closely with merchandising team to know the possibilities of the materials available in the best possible price. Using the drafts of core collection, and the details of the possible materials and trims from the merchandising team designers observe various options and approaches like:

- a. Developing variants from the staple designs,
- b. Possible usage of the same cloth with variety of different designs,
- c. Adapting some of the concepts to make garments more acceptable to a wider range of customers,
- d. Addition of 'fill-in' or classic type garments for which there may be a steady demand all through the seasons.
- e. Addition of garments in which some of the larger buyers have showed an interest.
- f. Harmonizing the contents of the collection so that it contains the best possible style and price combinations.

2. Technical Team

Technical design is the next step where the design starts taking a three dimensional shape, in the form of paper patterns. This phase of design development is also called as pre-production phase as the paper patterns are tested before the final product goes into manufacturing. The team focuses on pattern making and grading. The main function of this team is to prepare patterns and drafts for the designed product/garment. Patterns are also graded by this team for mass production. Paper patterns and draping are the two techniques that are majorly used to prepare patterns for a design. In addition to preparation of patterns, the technical team handles all the same functions as a manufacturing line but in a very small scale as they prepare fit samples/ prototypes. These lines help designers develop the prototypes by following the exact specifications of stitching and construction as directed by the designer. The benefit of working with technical team is that any errors in the

pattern cutting of sizing fit can be rectified before going into the final production. Developing the prototype of the designs, help the production to be faster and cost effective. Trims and accessories to be used the product are also tested for its quality.

3. Merchandising Team

Once the proto samples are sanctioned or approved after it has been tested for the quality of all the raw material, the pattern and prototype is sent to the merchandising team. Merchandising team is the medium of direct communication between the manufacturing industry and the buyer. The status of each stage of production is reported by the merchandising team and communicates the same with buyer. This team is connected to all the departments of the industry, right from designing to the final shipment of the product. The merchandising team's ultimate goal is to deliver the shipment to the buyer in the specified time frame. Merchandisers also serve the function of sourcing appropriate fabrics and trims as directed by the designer or buyer.

Merchandisers are in constant touch with the material wholesalers. Quotation of the best price for best quality and right quantity is the goal of merchandisers. Sourcing of the fabric and trims for buyer is a challenging process. Buyer usually gives a specification sheet (spec-sheet) also called as technical package (tech-pack) which contains all the details of smallest of the material to be used in manufacturing. Few examples of specifications mentioned in specification sheet are mentioned in the table below:

Contents	Instructions
Sketch or design of the product	A flat sketch of the garment with all the measurements clearly illustrated.
Measurement chart	A tabular format of the measurements required for the construction of the complete product.
Printing instruction	The printing of the label, logo or any kind of graphic on the garment, it also specifies the size of the print, colour of the print and the medium of dye to be used for printing
Embroidery instruction	It specifies if there is any kind of embroidery detail on the garment, the stitch length of the embroidery, the space between two stitches in the embroidery, number of stitches in one inch for denseness of the embroidery, thread used for embroidery, its colour, size, fibre

	content and twist.
Stitch instruction	This instruction has to be mentioned quite clearly as it specifies the stitch type to be used at different seams of the garment, the stitch length per inch, thread used for stitching, its colour, fibre content, size and twist.
Garments washing instruction	Many times while manufacturing the garment is covered in dust, soil, oil stains, rust spots etc, these instructions are used in such cases. These instructions also mention the direction of wash and care to mention on the care label that would be sewn into the seams of the garment.
Accessories instruction	Accessories or trims to be used in the product have their own specifications. For example; Buttons, its size, colour, thickness, material it is made from that is wooden, plastic, metal, fibre, shells, clay etc.
Different label instruction	This instruction is specific to all kinds of labels that go on to a product. Like brand label, size label, wash and care label, price label etc. even the placement of each label is specified particularly with exact positions and measurements.
Necessary comments related to the product	Any additional comments that may be required for the production manager and are utmost necessary are mentioned in this section.

4. Quality Assurance Team

The role of quality assurance team begins once the proto of the product is developed. It is the job of this team to maintain the quality of each material being used in the development of the product. Once the proto is approved the required raw materials are sourced from the merchandising team and are sent to the quality assurance team. Some industries have their own quality standards. While some buyers give their quality parameters to the manufacturer in the format of specification sheet. The team has to follow all the quality standards mentioned by the industry or by the buyer. The quality assurance team makes sure that the product is being manufactured as per the pre-determined standards for which the team performs various quality checks and inspections at different stages

of production. Quality checking and inspection takes place at following three stages of production:

- **Pre-production:** at this stage the raw materials and prototype samples are checked and inspected for quality.
- **In-production or in-line:** at this stage the cut parts and unfinished products are checked and inspected for quality.
- **Post-production or final inspection:** at this stage the final/finished and packed products are checked and inspected for quality.

The inspection and quality checks are done according to the pre-determined quality standards as specified by the buyer including the standards followed in the industry. A few quality standards observed and followed by the apparel industry are as follows:

Abbreviation	Full form
ASTM	American Society for Testing and Materials
AATCC	American Association of Chemists and Colourists
ANSI	American National Standard Institute
BSI	British Standards Institution
ISO	International Organisation for Standardisation
ISO 9000 Standards	International Organisation for Standardisation 9000 standards for Quality management systems
BIS	Bureau of Indian Standards
JIN	Japanese Industrial Standard
CSA	Canada Standard Association
DIN	German Standards Institute (Deutsches Institute fuer Normung)
ES	European Standards
AS	Australian Standards

The above mention standards are a key to achieve highest quality of the product. These standards dictate the guidelines of maintaining the quality of each material to be used while development of the product.

Inspection is a sub part of quality assurance. The basic difference between both is that inspection is done after the production is completed. Inspection also segregates good and bad, but quality assurance, attempts to follow ethical procedure while development to avoid any defects in the products. Assuring the customers with maintaining the quality standards ultimately helps in customer satisfaction and also maintains the customer brand loyalty.

5. Textile Testing Lab

As discussed above the quality control department plays an important role throughout the production process. One segment of controlling the quality in initial stages is textile testing lab. This lab is equipped with the all machines that are required for testing of textile for various aspects.

A buying house may have an in-house testing lab or they may be associated with an outside lab. Various properties of the textile material used in the order are tested for various factors as directed by the buyer. These tests include flammability test, strength tests, water permeability tests etc. which are either specified by the buyer or by the pre-determined standards of the industry.

6. Sampling Room

Sampling department coordinates with merchandising team and production department. After the proto types are approved they are sent to sampling department. Here the sample is developed according to the concept illustrated by the designer. For example, if the designer has given a stand collar for shirt with short sleeve, a front pocket, back shoulder yoke and front open with wooden buttons. It is the sample that buyer will see first and suggest if any changes are to be made. Suppose the buyer suggests using a flat collar and a full sleeve with broad cuffs, the designer will then have to make changes accordingly and develop mock-ups.

Mock-ups are actual size stitched pieces of changes suggested by the buyer. These pieces are only for a particular part. That means the flat collar will be stitched in actual size in a basic square cut fabric. Same with the sleeve the broad cuffs would be stitched same as it would be done in the final sleeve. These mock-ups help the buyer understand the stitching and the finishing that would be done in the final product.

Once the buyer approves the mock-up the sample is re-developed for final approval. After the buyer approves the final sample, a fit sample is developed.

Fit sample is constructed according to the base size specified by the buyer. This fit sample as the name suggests determines the fit and comfort of the garment on the wearer. The fit sample is sent to the buyer and buyer tests the fit on a live model. Once the buyer is satisfied with the fit he sends the approval. If not the changes by the manufacturer is done and is sent back to the buyer. After the approval of fit sample, size set sample is developed.

A size set sample as the name suggests is the set of all the sizes specified by the buyer. These sizes may range from extra small to extra-large. After the approval of set size is received by the manufacturer, a pre-production sample development is initiated.

This sample is also called as PP sample. Pre-production sample is developed by using all the actual materials to be used in final mass/bulk production. The purpose of developing the PP sample is to observe the consistency in stitches, sizes, fabric quality, trims used etc. while the PP samples go to buyer this time he also observes the final packaging of the product. The final packaging includes attachment of labels, buttons, zippers, tags, etc. Once the buyer is satisfied with the PP samples they approve the samples and gives go-ahead instructions for production.

In the course of mass or bulk production the buyer sometimes may want to still be assured of the quality of the products and in this case the buyer randomly selects a few pieces from the production line for the quality check and its assessment. These samples are called as TOP samples or Top of Production Samples. The quality assessments of this TOP samples is done by buyer's Quality Assurance team which is mostly associated with the buying house.

Then comes a GPT sample. GPT stands for Garment Performance Test. This sample is used to test the strength, wear-ability, comfort, colour fastness, seam slippage, durability, button pulling strength, seam strength, print quality, chemical tests of metals, and dyed and printed colour.

Marketing samples including the Salesman Sample(SMS) and photo-shoot samples are also constructed in the sampling department. SMS is also called as promotional sample. This sample is helpful for the buyer to display at their stores as visual merchandises to attract the customers. This helps the buyer to procure orders from retailers. Photo-shoot sample just as the name suggests is used for print shoots by the buyer for catalogue development, to put on all their social media handles.

Apart from all the above mentioned samples manufacturer also develops a counter sample. Counter sample is the exact same copy of the final approved sample. It many happen that the sample would be assessed by the quality team and the production team at the same time. In this case using only one sample might be challenging and a counter sample could be used instead. Counter samples can be made for each type of samples discussed above. Like counter for proto, counter for size set sample, counter for PP and likewise.

Above mentioned all the samples are developed by a handful of tailors and machines. The setup and line for production of product is kept same as in the actual production line. This system also helps the sampling team to calculate the time required to complete the product and ultimately helps in setting the time line. The process of timing each step in product construction is very important as it decides the numbers or machine operators required to complete the production of specified consignment or order.

7. Factory Compliance Audit Team

A compliance audit is a type of audit service that focuses on whether the industry or entity is complying or obeying with local law, regulations, and related rules. It also reviews the factories compliance with the internal policies and rules and regulations. Maintaining the compliances in the factory helps a huge gain in productivity because the associates and employees work in healthy and safe environment.

Compliance audit in India comprises of an examination of the rules, regulations, orders and instructions for their legitimacy, competence, and transparency. Auditors gather information through visual observations at the site, tallying the same with document records and discussions with the staff. This data is then matched to the appropriate licenses, permits and regulations to evaluate how well the operation is being followed to those applicable legal requirements.

Audits and assessments deliver an important administration control for safety, security and risk management programs. They help to ensure if programmes are suitably planned, designed and implemented. Audits recognise insufficiencies for recommendations to be developed for remedial action.

Types of audits

1	External audit	External audit is generally done by audit firms. These services can be hired by the industry for audit purposes.
2	Internal audit	Internal audit is conducted by the industry appointed audit team or by members of board and other executive staff, in case if there is no appointed audit committee the internal audit generally reports to the owner of the industry.
3	Forensic audit	It is performed by the forensic accountant who is skilled in both accounting and investigation. Forensic audit is used in cases where financial investigation is done on the concerned subject matter. For example ; if there is a financial dispute between the buyer and the manufacturer a forensic accountant will investigate the matter and

		the findings of the investigation are/can be used as evidences in court if needed.
4	Statutory audit	It refers to the audit of financial statements for specific type of industries. The guidelines are directed by law or local authority. It is usually performed by the external audit team.
5	Financial audit	Financial audit is conducted by an independent auditor hired by the industry who provides a financial opinion after auditing the financial statements of the industry
6	Tax audit	This type of audit is performed by government's tax department or tax authority. Once the tax obligation is filed by the industry, tax auditors from government offices visit to cross-check the submitted audit report.
7	Information system or Information Technology audit	This type of audit evaluates and checks the reliability of the safety system, information security organisation, and integrity of the system so that the productivity that the system yields is reliable.
8	Compliance audit	Compliance audit check the industrial internal policies and procedures as part of internal audit but it also checks it by the guidelines of law and regulation. A compliance audit is part of the system that is used by the industry's management to administer the efficiency of the execution of the government's law and regulation, and the industry's internal policies and procedures.
9	Value for money audit	Audit activities that evaluate three main difference factors: economy, efficiency and effectiveness. Economy, where the auditor checks whether the procured raw material is of good quality at cheaper rates. Efficiency where auditor checks whether the resources used by the industry have a good conversion ratio. Lastly effectiveness where the auditor checks whether the objective of the industry is achieved or not.
10	Review financial statements	Review of financial statements by the auditor just issues industry an opinion of no point errors were found. Auditor will not express whether the financial statement is true and fair view and is free from any miss-leading material. Auditor here gives

		just an opinion.
11	Agreed upon procedures	Auditor in this procedure only reviews the procedures set by the client of the industry. Although auditor will also check whether the industry has all the facilities that are required to perform all necessary processes as set by the client.
12	Integrated audit	When industry requires getting two or more types of audit done then it is called as an integrated audit. Example; financial audit along with social audit.
13	Special audit	This type of audit is conducted by the internal audit team. For situations like fraud and mismatch of financial statements.
14	Operational audit	This type of audit is done to increase the efficiency, productivity and effectiveness of operations conducted by industry.

Basic Areas of Compliance

- Proper working conditions and standard wages and hour laws for all employees
- Restriction on child labour, forced labour and discrimination on gender, religion or cast
- No illegal transshipment, for example: Country of manufacturing any kind of product has to be the same as agreed upon with the buyer at the time of order placement.
- Environmental protection and other safety laws

Following are few contents of the compliance checklist

Fire extinguisher checklist	Type of extinguisher, refilling date and location date, locking pin in place, pressure hose in good condition, expiry month clearly mentioned etc.
First aid checklist	Adhesive bandage, antiseptic wipes, gauze bandage, roller bandage 2 and 4 inches, ORS, cotton, signature of the nurse etc.

Toilet checklist	Soap, bucket, paper towel, cotton towel, exhaust fan, basic, water tap with connection, other sanitation and cleaning of the toilet, signature of janitor.
Daily checklist for drinking water	Filter cleanliness, water levels maintained, water colour clarity, water tap cleanliness, consistent water supply, water pipe switch, water temperature control system etc.
Fire alarm and testing	Condition of the fire alarm, last maintained date, actions taken if used.
Fire extinguisher checklist	Nozzle, number marking, safety pin, meter, zigzag marking, expiration date, inspection card, rules for handling the device, signature of the inspector
Fire equipment box checklist	Fire helmet, gum boots, hand gloves, fire hook, hammer, lock cutter, respiratory mask, fire blanket, manila rope, gas mask, torch light etc.
Boiler checklist	Boiler Controlling Area, Water Level ok/Not ok, Pressure Meter ok/Not, Safety Valve ok/Not, Gas Header ok/Not
Electrical equipment checklist	All switchboard panel, emergency switches, circuit breakers,, electrical cords, plugs, combustible distance, etc.
Generator maintenance	Fuel, main supply tank level, oil level, cooling system, exhaust system, leakage if any, battery systems, general inspection, etc.

Common social compliance violations discovered across textile industries include:

- Failure to provide adequate social insurance benefits.
- Unfair wages, such as payment that does not comply with minimum wage regulations and statutory overtime rates, as well as money that has been withheld.
- Working hours in excess of local overtime limits.
- Health and safety breaches such as inadequate fire safety, the usage of protective gear, and poor cleanliness in facilities and dorms.

The buyer may employ the buying house to conduct or monitor compliance audits in the manufacturing industry. Team from the buying house alone or along with third party auditors conduct and monitor

compliance audits in the export house at regular intervals or as defined by the buyer. These audits are conducted as a surprise audit to the manufacturer or export house for an unbiased result. The compliance audit team in the buying house is responsible for conducting, monitoring and reporting these audits.

8. Shipping and Documentation

Export industries are required to document each and every activity being carried out while a product has to be exported. Generally, the documents submitted by the cost and freight also commonly called as C & F to the customs authority for exporting the goods are called export documents. It is the function of the commercial section to prepare and maintain the export documents.

Need for export documentation

There are a number of reasons for maintaining various types of documents to execute a smooth export procedure.

- a. To assure the shipment of correct goods.
- b. To ensure the time band of the shipment and track the movement of the same.
- c. To confirm the quality of the goods.
- d. To clear the export customs procedure.
- e. To describe the contents of the goods in a particular shipment.
- f. To describe the manufacturer's details.
- g. To indicate the ownership of goods.
- h. To ensure the proper procedures followed as per government norms.
- i. To ensure a transparency for importer.
- j. To avoid any unlawful activities.
- k. To obtain payments from the buyer/importer after completing the documentation formalities through their respective banks.
- l. To facilitate smooth shipment across borders to the destination country.

The shipping and export documentation is the responsibility of the shipping department in the buying house. This department prepares all the documents required for shipping including certificate of inspection, bill of landing, airway bill, shipping order etc. Some of the documents for example packing list are prepared by the exporter/ manufacturer. These documents are verified, approved and finalised by the shipping team in the buying house as employed by the buyer. All shipment bookings are made by this team according to the trade incoterms applicable to the order.

Activities

Activity 1: Prepare a checklist for a compliance audit of an export house.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive

Procedure:

1. Assume that you are in compliance audit team of a buying house and you have to conduct a compliance audit for an export house.
2. Observe the requirements of the export house to comply with the industry standards.
3. Prepare a checklist to conduct the audit as planned in an export house of 150 employees.

Activity 2: Prepare a power point presentation explaining different departments of a buying house.

Materials Required:

1. Writing material
2. Computer

Procedure:

1. Study about different departments of a buying house.
2. Observe all the functions of the departments.
3. Based on your understanding prepare a power point presentation stating the departments and their functions.
4. Present in your class.

What Have You Learned?

A. State True/False for the following:

1. Trend forecast is the first step in designing a collection.

2. The sourcing department prepares all the documents required for shipping.
3. External audit is generally done by audit firms.
4. Designer does the sourcing of materials.
5. Tech pack is developed in textile testing lab.

B. Subjective Questions

1. Functions of a sampling department in a buying house.
2. What is a compliance audit? State measures for conducting a compliance audit?
3. What does shipping and documentation department do? Briefly explain the documents prepared by this department.
4. Which department is in direct contact with the buyer and the manufacturer? Explain its functions.

**Session: 3 Payments, Insurance and Compliances
With RBI/Bank****COORDINATING PAYMENTS WITH INTERNATIONAL BUYER AND BANKS**

Once the buyer negotiates an export order, discussion of the payments and its terms is of utmost importance. This discussion must include the method or mode of payment. It may indicate how and when the payment will be made by the buyer and received by the exporter. It is the duty of the exporter to have a clear understanding of all the payment methods and procedures involved with each type of method and the risk factors associated with it. Once the clarity between both the parties have been made with mutual understanding it may then be taken forward for finalising the final mode and method for transactions. There are basic six types of payment methods available for the export services:

1. Advance payment

This method is the safest payment option. The payment is sent by the buyer to the exporter through Telegraphic Transfer (TT) or through cheque or demand draft. The exporter here cannot be cheated as the goods will only be shipped on a later date. The exporter also can use the received advance amount of money for his other areas which require cash liquidity. Once he deposits the cheque or demand draft with the bank, a FIRC i.e. Foreign Inward Remittance Certificate is issued by the bank.

On the other hand, this method is not safe for the buyer for the above mentioned reason that the goods will be only sent on a later date. Therefore, many a times the buyer does not prefer this type of payment method. In cases of small amounts or where extreme trust is involved this method is opted by the exporter and importer mutually. The type of payment method is least expensive. It also does not require to pay any interest or commissions anywhere, also it doesn't require any procedural formalities or documentation.

2. Open account

This type of payment between the buyer and exporter states that the goods are shipped without any guarantee of payments. Both parties agree on the terms verbally but no documentary evidences are created. The exporter is at high risk in this case as the payments will be only released on the later dates. The exporter also must have enough finance to execute the cost of production all by themselves in this case. The accounts between the exporter and importer are settled intermittently. Possibilities of default (less than accounted) or delay in payments are

also very high. The exporter must strictly deal with trustworthy buyers only if they chose this method of payment.

3. Consignment sales

In this type of payment mode, the goods are exported by the exporter but he transfers the ownership to the importer only when the payments are made. In this case too entire risk is borne by the exporter. If in case the importer refuses to pay or accept the shipment, the exporter will have to bear the cost of returning the shipment back to the industry. The exporter in this case is also stuck with unsold goods and cannot claim payments for the same from the buyer.

4. Documents against acceptance

The buyer is notified to accept documents by the buyer's bank once the freight documents and bills of exchange have been received by the buyer's bank. By accepting bills of exchange supplied by the exporter, the buyer acknowledges the documents and agrees to pay the value of the items sent within the agreed time frame.

Importer receives original shipping documents by 'accepting' Bill of Exchange. Then the importer completes the import customs clearance procedures with the said original shipping documents and approach carrier to deliver cargo to the importer.

The payment of goods is done to the exporter on the maturity day stated in the Bill of Exchange.

5. Documents against payments

The documents are sent to the buyer's bank with a draft or Bill of Exchange. This draft is a sight draft that means even a slightest delay in the payment may lead to cancellation of the transaction. The draft has to be paid immediately on sight and only after the receipt of payment; the shipment title documents are released. This indicates that now the importer has the possession of shipment title documents along with the ownership documents. The exporter simultaneously releases possession of shipment only against the receipt of payments which are already made by the buyer.

6. Letter of credit

This is a very popular form of document credit therefore it is widely used by majority of export industries. This letter is established by the importer through his bank to the benefit of the exporter assuring payment of the draft drawn against this letter if, the exporter abides by with the conditions mentioned in the letter of credit. This letter is like a written agreement prepared by the importer and importer's bank for the exporter,

stating and promising to pay the export bill. In this way this letter works as an independent contract between the exporter and the billed finance issuing bank.

It is a binding document that an importer can request from his bank in order to guarantee that the amount of payment for the purchased goods will be transferred to the exporter. It also provides a reassurance to the seller that they will certainly receive the quoted amount. In order to process the payment, importer has to present bank with the necessary shipping documents confirming the shipment of the goods within the given period of time. This is widely used method because it eliminates the risks of unfamiliarity with foreign country, customs or political instability.

Once the payment method is decided mutually between the exporter and the buyer, it is the duty of an export assistant to coordinate with the buyer and the bank for payment. The coordination depends on the terms of payment decided. An export assistant plans the shipment and arranges for payments from the bank and the buyer. This is done with the help of telephonic communication, e-mails, written documents and agreements. An export assistant must understand the payment terms and the timeline for the payments according to which he must arrange for payment from the bank. He must ensure that the complete payments are cleared once shipment order reaches the destination.

In case of payment defaults the export assistant is responsible to claim and coordinate for insurance.

INSURANCE THROUGH ECGC TO COVER PAYMENT DEFAULTS

The Export Credit Guarantee Corporation (ECGC) is a federal government agency that provides credit guarantees in the event of a buyer's payment failure. It functions as an insurance company that ensures export payment if the importer fails to pay.

Procedures with ECGC to cover insurance:

Once after confirming the order of goods, the buyer implements a purchase order to the exporter with the terms and conditions as contracted by both the parties. The purchase order should contain accurate details of buyer and his bank account. The exporter seeks approval of the buyer with limit of amount from Export Credit Guarantee Corporation. Here, the ECGC with their existing contact with foreign network finds out the credit value of the said buyer and arrives to a Fig. of creditworthiness and informs the extreme limit of amount that can be

shipped at any point of time. The Export Credit Guarantee Corporation collects premiums based on the amount of approval and then issues an insurance policy.

The exporter can apply with ECGC for insurance on consignment wise order as detailed insurance policy, or at lump-sum as comprehensive policy. If an exporter finds a specific detailed policy, the contract of insurance is only for that particular shipment. Exporter is required to pay premium only against the said freight.

CUSTOMS CONTROL DOCUMENT SUBMISSION AND REPORTING TO RBI/BANK (POST- SHIPMENT)

After the shipment has been completed, the exporter receives documents from the C&F agent.

1. On completion of the shipping procedure, the C&F agent submits the following documents to the exporter:

- a. A duly attested copy of invoice by the customs.
- b. Drawback copy of the shipping bill.
- c. Export promotion copy of the shipping bill.
- d. Copies of negotiable and non-negotiable bill of lading.
- e. The original L/C, export order or contract.
- f. Copy of the ARE-I form.

2. Shipment Advice to Importer: Following the shipping of products, the exporter notifies the importer, providing information such as the date of shipment, the name of the vessel, and the destination. A copy of the non-negotiable bill of lading is also sent.

3. Presentation of Documents to Bank for Negotiation: The process of getting the payment from the bank and submitting the relevant documents to the bank is called "Negotiation of the Documents." and the documents are called 'Negotiable Set of Documents'. The set normally contains:

- a. Bill of exchange, Sight Draft or Usance Draft.
- b. Full set of Bill of Lading or Airway Bill.
- c. Original Letter of Credit.
- d. Customs Invoice. Commercial Invoice including one copy duly certified by the Customs.

- e. Packing List.
 - f. Foreign exchange declaration forms.
 - g. Exchange control copy of the Shipping Bill.
 - h. Certificate of Origin, GSP Certificate, etc.
 - i. Marine Insurance Policy, in duplicate.
4. **Despatch of Documents:** The bank negotiates these documents with the importer's bank according to the L/C. The exporter's bank inspects paperwork before negotiating them to ensure that all requirements have been followed and that all documents are in order. The bank then provides the exporter the Bank Certificate as well as certified copies of the commercial invoice.
5. **Acceptance of Bill of Exchange:** Bill of exchange along with the above documents is known as the Documentary Bill of Exchange. It is of two types:
- a. Documents against Payment (Sight Drafts): In this case, the exporters instruct the bank to hand over the relevant documents to the importer only against payment.
 - b. Documents against Acceptance (Usance Draft): In this case, the exporter instructs the bank to hand over the relevant documents to the importer against his 'acceptance' of the bill of exchange.
6. **Letter of Indemnity:** By signing a letter of indemnity, the exporter can get quick payment from the bank upon submission of documents. The exporter agrees to compensate the bank in the case of non-receipt of payment from the importer, as well as any accumulated interest, by signing the letter of indemnification.
7. **Realisation of Export proceeds:** When the importer receives the documentary bill of exchange, he either releases payment in the event of a sight draft or accepts a usance draft that promises to pay when the bill of exchange matures. The money is received by the exporter's bank via the importer's bank and credited to the exporter's account.
8. **Processing of GR Form:** When the exporter's bank receives the export funds, it notifies the RBI by writing the information on a duplicate copy of the GR. The RBI compares the information in the duplicate copy of the GR with the information in the original copy

of the GR obtained from customs. If all of the information are correct, the export transaction is considered complete.

9. **Realisation of Export Incentives:** If an exporter is eligible for export incentives, he or she should file a claim with the appropriate authority, supported by a bank certificate.

Activities

Activity: Prepare a flow chart for submission of Documents by the Cargo & Freight (C&F) Agent to the Exporter.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive

Procedure:

1. Based on your understanding of the topic, prepare a flow chart on a chart paper 1of documents submission by the C&F agent to the exporter.
2. Use images wherever possible.
3. Place the chart in your class.

What Have You Learned?

A. Fill in the Blanks

1. There are _____ types of methods available for export payments.
2. _____ is the safest payment method for exporter.
3. _____ is the most reliable method of payment for both exporter and importer.
4. Sight draft is also called as _____ draft.
5. ECGC stands for _____.

B. Subjective Questions

1. How does an export assistant coordinate for payment with the buyer and the bank if the payment term is letter of credit?
2. What is ECGC? How can one apply for insurance cover?

Module 4**Maintain a Clean and Hazard Free Working Area****Module Overview**

A clean workplace means more than just having a fresh surrounding area. Clean workplace encompasses various elements:

- Walking surfaces
- Light Fixtures
- Air quality

A clean and hazard free workplace ensures the safety and health of the employees and visitors. Clean walking surfaces, suitable footwear, and appropriate speed of walking are important to preventing falling accidentally. Stairways and aisles that are clean and dry are also vital in reducing accidents and ensuring a safe workplace. Clean light fixtures improve lighting efficiency in the workplace. Good air quality greatly influences work environment as well as the health of the employees.

The negative effects of the unclean environment are as follows:

- A build-up of dust, lint, and grease can create breathing problems for everyone in the working area, resulting in asthma attacks, stuffy noses that may lead to serious health issues.
- A dirty work environment is breeding ground for various germs and allergens.
- Workstations, tools and equipment, machinery, materials, and the progressive bundling system of production systems are all poorly constructed, increasing the risk of musculoskeletal injury and stress-related disorders.
- Fire dangers are typically caused by overcrowding and incorrect storage of flammable goods.
- The significant health and safety risks are caused by bad sanitation and a lack of effective maintenance procedures.

Two most common ways to tackle it are:

- Use of disinfectants to prevent the spread of germs and microbes.
- Proper disposal of waste and recyclable materials keeps work areas clutter-free.

Therefore, the major health and safety concerns of the apparel industry are related to general conditions of the work environment.

Proper maintenance procedures are a must to ensure a clean and safe working environment.

Learning Outcomes	
After completing this module, you will be able to:	
• Identify Importance of routine maintenance and its procedures • Explain how to Maintain cleanliness • Analyze handling of machinery, equipment and tools safely and correctly • Describe Effective oral and written communication at workplace	
Module Structure	
Session-1	Importance of Routine Maintenance and its Procedures
Session-2	Maintaining Cleanliness
Session-3	Operation of Machinery, Equipment and Tools Safely and Correctly
Session-4	Effective Oral and Written Communication at Workplace

Session: 1 Importance of Routine Maintenance and Its Procedures

MAINTENANCE PROCEDURES

Maintenance is defined as the group of systematic activities carried out to keep the machines or equipment in proper running condition. Proper working condition of machines is a must to produce good quality products in time. Therefore, there is a need to establish a maintenance department in every factory to ensure timely production. Moreover, it is required to document the process and procedures for assistance of auditor.

Good maintenance includes the regular upkeep of material, equipment, machinery and good housekeeping, e.g. trolleys are used extensively throughout the industry and play a major part in reducing manual handling. Systematic cleaning and maintenance of wheels ensure that risks of injury are minimized. Clean floors benefit by ensuring ease of movement

THE IMPORTANCE OF RUNNING MAINTENANCE

Running maintenance means routine maintenance, inspection and servicing of machines and systems to ensure smooth functioning and efficient production. Running maintenance also means routine maintenance irrespective of presence of problem in any of the machines or systems.

The major reasons for running maintenance are as follows:

1. To increase the life and productivity of machinery, equipment and tools.
2. To avoid delays in production due to malfunctioning of machines
3. To ensure better or superior quality for the product.
4. To control and reduce the wastage.

Effective maintenance program plays an important role in the manufacturing processes. The importance of running maintenance can be understood from following points:

- It effectively reduces waste and run an efficient and continuous manufacturing / service operation.
- The cost of routine maintenance is very less than the cost of repair of a major breakdown.
- Daily inspections, cleaning, lubrication and minor adjustments can be detected and corrected before they become a major problem and may result in complete shut-down of a production line.

The running maintenance is one of the three maintenance systems present in apparel industry. The maintenance systems are as follows:



Fig.: 4.1 -Types of Maintenance Systems

a. Breakdown Maintenance

Breakdown Maintenance is the repair process carried out after the equipment stops functioning.

Machine breakdown time should be recorded and tracked to see mechanic performance. It is carried out only when evident problems occur. These are unpredictable type of maintenance and difficult to schedule. The equipment is either repaired or replaced. They are important because machine breakdown time is considered as loss time in garments manufacturing.

b. Preventive Maintenance

Preventive maintenance is periodical and timely inspection which includes daily, weekly, monthly based cleaning, inspection, equipment condition diagnosis, oiling and alignment, and servicing activities.

Maintenance team carries out preventive maintenance as per their maintenance schedule.

c. Routine Maintenance

Routine maintenance consists of periodical and timely inspection, servicing, lubrication and cleaning of the equipments. It might also involve replacing certain parts to prevent sudden failure and avoid problems to ensure uninterrupted working condition of all machines.

SAFETY PRACTICES

The maintenance systems are inadequate to ensure safe and clean working environment until they are complemented by the various safety practices. Presence of hot steamers, electrical equipment, and sharp tools and devices combined with the busy schedule make it important to work carefully and pay constant attention to safety practices. The various safety practices are as follows:

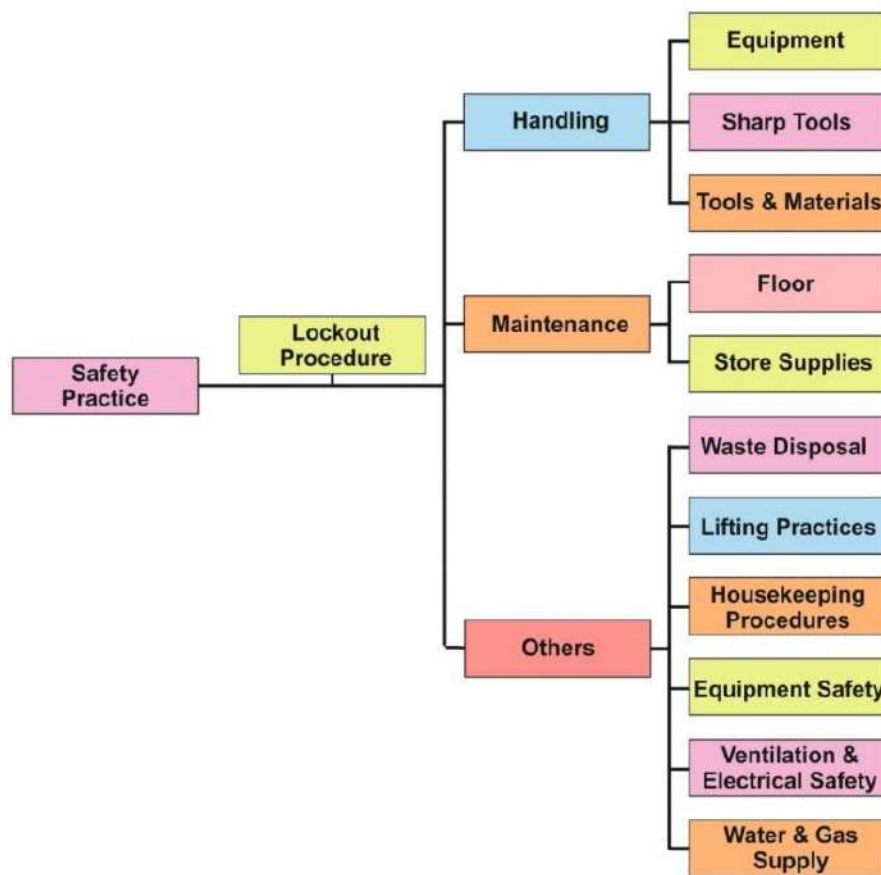


Fig.: 4.2 Safety Practices

1. Lock-out procedures

Locking out a machine means disconnection of the power feeding the machine.

The designated person carrying out the maintenance or repair is in charge of the key to the lock of power supply. Before turning the power off, this person ensures the work on the machine has been completed.

The person in charge reports early before the shift timings and removes the power lock of all the machines. This allows the power supply to make machine functional again. It is the duty of the person in charge to lock the machines during the lunch and tea breaks.

To safeguard the key, lock-out poster or signage must be posted near the equipment, so that no one can accidentally restore power without the person in charge's knowledge.

The steps listed below must be followed before repairs or maintenance is carried out.

Steps of Lockout Procedure:

1. Notify all workers on duty about the lockout and the reason for it.
2. If the equipment is operating, switch it off.
3. The power cables must be unplugged. Grounding, repositioning, blocking, and bleeding down must all be used to dissipate or release stored energy in capacitors, springs, raised machine members, revolving fly wheels, hydraulic systems, and air, gas, steam, or water pressure.
4. Operate the push button or other usual working controls to guarantee that the equipment is not functional after ensuring that no workers are exposed and that the energy sources have been disconnected.
5. The equipment is now locked out.

Restoring Equipment to Service:

1. When the repair / maintenance job is completed and the equipment is ready for testing or normal service, a check of the equipment area is carried out to ensure that no one is exposed.
2. When equipment area is clear, all locks are removed. Power cables can be then reconnected.

2. Equipment handling

The points to be kept in mind while handling the equipment are as follows:

1. Do not use any machine if not trained to use.
2. Ensure the machine is switched off before cleaning or adjusting any machine.
3. Ensure fingers, hands, tools, etc., are away from moving parts. Please wait until machine fully stops.

4. Care must be taken while cleaning the cloth cutting and drilling machines. The steps followed are as follows:
 - i. Pull the plug from switch board.
 - ii. Do not touch the edge of the blade.
 - iii. Clean the blade moving from the Centre towards the outer edge.
 - iv. Clean the inside edge of the blade with a stick that has a cloth wrapped around one end.
5. Do not start a machine until the parts are locked in place and the attachments are securely fastened.
6. Use a wooden plunger (rather than hands) or other metallic tools to clean the machine.
7. Ensure awareness of the lock-out procedures that are to be followed before repairing or cleaning any machine.
8. Do not wear rings, large size wristwatch, bangles, or a tie while operating electrical power equipment.

3. Sharp tools Handling

The points to be kept in mind are as follows:

1. Use the right cutter or knife for the job.
2. Avoid close proximity to falling cutters or scissors. When a knife starts to fall, jump backward to get out of the way.
3. Always carry a cutters or scissors with the tip pointing downward, with the cutting edge turned away from the body.
4. Never talk while holding a cutters or scissors in the hand.
5. While cutting with any cutters or scissors, always cut away from the body.
6. Place cutters or scissors in drawers or in racks for proper storage.
7. Always use a sharp knife; it is much safer than a dull one.
8. Take a firm grip on a knife handle and always make sure that the handle is free of grease or any other slippery substance.



Fig.: 4.3 - Sharp tools

4. Tools & Materials handling:

The points to be kept in mind are as follows:

1. Use dry towels while handling hot openers, steamer covers/doors as wet cloth conducts heat more readily than dry cloth.
2. Avoid splashing grease on top of the range. Grease will ignite quickly, causing a fire. Do not throw water on a grease or fat fire. Use a foam based extinguisher or a wet towel.
3. Remove the lids of iron steamer or washers slowly. Lift the side of the lid that is away from operator so the steam does not rush out too quickly, causing burns to the hands or face.
4. One should Know the location of fire extinguishers; know how and when to operate them.

5. Floor Maintenance

The points to be kept in mind are as follows:

1. Wet floors are dangerous. Keep them dry.
2. Wipe out any spilled water or other similar liquids immediately.
3. Walk. Do not run or slide across the floor.
4. Never leave tools and rags on the floor.
5. Keep all path areas clear of boxes, garbage cans, portable equipment, mops and brooms, etc.
6. Using rubber mats behind the range is a good practice. Mats must be kept in good condition by daily cleaning.

6. Store supplies Safety and Maintenance

The points to be kept in mind are as follows:

1. Always store heavy materials on bottom shelves, medium-weight materials next and light-weight items on top shelves.
2. Clean all dirt, grease, and trash daily to reduce fire hazards and to eliminate breeding places for rats and cockroaches.
3. Use ladders, not boxes or chairs, to get things from high shelves.

7. Waste Disposal

The points to be kept in mind are as follows:

1. Place cloth and other scraps in proper containers.
2. Do not allow containers to overflow. Empty them before they are completely full.
3. Report broken or defective containers.

4. Wear gloves while disposing off expired washing chemicals or similar liquid trash.
5. Wash and sanitize hands properly
6. Push garbage down using a tamper or other tool. Do not push it down with hand or foot.

8. Lifting Practices

The points to be kept in mind are as follows:

1. Keep back straight, but not necessarily vertical. Have a firm grip on the object.
2. Keep the object close to the body.
3. Bend the knees before lifting.
4. Lift the object by pushing weights on legs.
5. Call for help to lift or move heavy boxes or containers.
6. Use of trolley is advisable for heavy objects.

9. Good housekeeping procedures

The points to be kept in mind are as follows:

1. Do not block exits.
2. Maintain a clean, dry, and grease-free work environment.
3. Maintain the condition of your steps and ladders.
4. Keep emergency equipment clean and unobstructed.
5. Ensure that all warning signs and labels are in good working order and are easily visible.

10. Equipment Safety

Extreme care should be taken while operating equipment. Before operating any tool or piece of equipment, one must be fully trained. Make sure that all guards are in place and function properly and that all electrical connections are properly made.

- Precautions taken while using equipment are,
 1. Understand the correct operating procedures and safety precautions before operating the equipment.
 2. Ensure that all guards are in place and functioning before any machine is started.
 3. Report defective or unsafe equipment to a responsible individual to prevent serious injury.

4. Keep edge-cutting tools properly sharpened. Store the same in safety covers.
5. Use tools only for their intended use and make sure the size of the tool is right for the job.
6. Lock the machines before lubricating.
7. Do not wear loose clothing, jewellery, or keep long hair open may around machines which increase the risk of being caught in the machinery.
8. Approach the supervisor for any queries about a machine safety.

11. Ventilation systems

The environment in which the workers work should be free from smoke, fumes and steam. Industries should have ventilation equipment with suppression systems to release fresh air.

Many industries use emergency shutdown systems or “panic buttons.” These are installed so that a single switch can be used to turn off the power to a large number of pieces of equipment.

These devices are intended to be employed in the situation in which a person is electrocuted or becomes caught in a piece of machinery. In these conditions, quick action is required. The points to be kept in mind are:

- Hit the panic button.
- Locate and learn how to use the emergency shutdown.

12. Electrical safety

The points to be kept in mind are as follows:

- As human body is sensitive to relatively small values of current, worker can receive a shock or burn from any common electrical circuit.
- Worker should be made aware of the location of the main panel or sub-panels being used, and learn how to shut them off in case of an emergency. Notify the supervisor right away.
- Obtain permission from the electrician before using a new service.
- Electrical extension cords, if they need to be used, should be orderly and not allowed to become tangled. Such cords should be taped to the floor whenever possible as this will reduce the chance of someone tripping over them

13. Water supply

If a pipe breaks or bursts, the water may damage material, tools, and equipment or work already done. In addition, water may create an electrical

hazard if it comes in contact with electrical panels or outlets. Locate water shut off point of the industry, shut the water off and notify supervisor at once.

14. Gas supply

Escaping gas can cause an explosion that could injure anybody or cause severe damage. When the valve handle is running parallel with the gas line, the supply of gas is flowing and on. Locate the gas shutoff in the industry, shut the gas off and notify supervisor immediately.

CARRY OUT RUNNING MAINTENANCE WITHIN AGREED SCHEDULES

Maintenance is the action to retain, fix or restore an item in a state where it can perform its required function by the combination of all technical administrative, managerial and supervision actions.

The maintenance strategy has a significant impact on the industry's bottom line, but many maintenance managers have trouble selecting an appropriate strategy or overlook their approach altogether. Benefits of optimizing maintenance strategy include extending asset life, reducing asset failures and downtime, minimizing repair costs, and improving health and safety.

It's important to follow agreed schedules to maintain the assets properly and ensure that they remain in working order. Cutting, sewing, washing, ironing, folding, packing and finishing machines are important for the production of garments. So it is necessary to keep them in the best operating condition at economical cost.

1. Maintenance department activities in garment industry

The maintenance department is mainly responsible to look after the machines and other production equipment in proper working condition and take corrective action against any environmental pollution

a. Functions of Maintenance Department

1. Inspection of all machines and other machinery in the industry, repairing and up gradation.
2. Maintaining and ensuring continuous power supply in the factory.
3. Maintaining the water plant, compressors, air conditioning systems, Generators and boiler.
4. Planning, design and implement any kind of expansion of the industry.
5. Purchase of new machinery.

6. Issuing of different spare parts and accessories according to the production requirement.
7. Housekeeping.

2. Responsibilities of machine mechanic

a. Daily basis work of machine mechanic

1. Check machine setting correct or not
2. Check oil level and oil leaks of the machine
3. Check un-usual noise of the machine
4. Check safety equipment
5. Check machine allocation
6. Check production plan
7. Check for any loose nuts or bolts.

b. Monthly basis work of machine mechanic

1. Cleaning of whole machine by opening parts
2. Check back/ front cover
3. Check Oil lubrication, Oil level/ oil filter condition
4. Check functioning of machine
5. Check condition of Machine table
6. Cleaning and blowing
7. Check Power on/ off switch
8. Check Motor and control box condition
9. Observe abnormal sound Connections

3. Machinery maintenance schedule and procedure

a. Daily maintenance

If a machine breaks down during its operation, floor mechanics are called in to repair it. If this is not achievable in a reasonable amount of time, the machine is relocated to the maintenance room and replaced by another machine, with the appropriate steps done to repair it. The daily record of maintenance work is kept in a systematic format. Following are few of the maintenance work which are conducted daily.

Activities carried out daily:

1. Check speed and working of the machine.
2. Complete cleaning of the machine.

3. Check un-usual noise of the machine.

Activities carried out every four hours:

- Check for oil leaks.
- Clean machine parts.

b. Monthly maintenance

It is a preventive maintenance to reduce machinery problem and increase machine life, execute as per predetermined schedule fixed at the starting of the year by regular basis. This maintenance program covers total servicing of the all machine, oil change, oil filter change, or change of any defective parts. Records of monthly maintenance works must be kept in specified format.

HAZARDS LIKELY TO BE ENCOUNTERED WHEN CONDUCTING ROUTINE MAINTENANCE

Regular maintenance is essential to keep equipment, machines and the work environment safe and reliable. Maintenance workers are more likely to be exposed to various hazards.

Potential hazards could be:

- A. Dangerous substances,
- B. Confined spaces,
- C. Working at height,
- D. Awkward positions,
- E. Plant under pressure,
- F. Moving parts of machinery,
- G. Unexpected start-ups,
- H. Chemical substances or dust in the air, etc.

Insufficient maintenance can result in unsafe circumstances, accidents, and health issues. Working alongside a running operation and in close proximity to machinery makes maintenance a high-risk activity with distinct dangers and risks.

In contrast to regular operation, direct contact between the worker and the machine cannot be decreased significantly in maintenance activities, where workers must be in close proximity to the processes.

Maintenance activities are critical for the health and safety of maintenance staff. They may also be critical for others, in particular, for the equipment users or the production operators.

According to the relationships between maintenance and production, some accidents can be traced back to maintenance failures, such as insufficient, inappropriate, or late maintenance. For example, if maintenance is not performed on a regular basis, the equipment or installation can become dangerous to maintenance and production personnel. Other accidents may result from the co-activity of the two types of operators for example repair without interrupting operation.

Maintenance operations include both disassembly and reassembly, often involving complicated machinery and working at height. These can be associated with a greater risk of human error, increasing the accident risk.

Maintenance often involves unusual work, non-routine tasks and it is often performed in exceptional conditions, such as working in confined spaces. Working in confined spaces may expose workers to risks, which are:

1. Exposure to harmful gas, fumes, vapours or lack of oxygen
2. Risk of drowning in water or free-flowing solids
3. Risk of getting injured due to fire or explosion.
4. Risk of getting burned by high temperature machines

The hazards are commonly grouped as physical, chemical, biological and psychosocial. The hazards may vary significantly between planned, preventive and repair or corrective maintenance tasks.

- Type of hazards are as follows:



Fig.: 4.4 – Types of Hazards

1. Physical Hazard

- a. Mechanical movement - rotating elements e.g. flywheels, compressed springs, unexpected start-ups e.g. blockages cleared, trapped air in lines operating valves, restoration of power, computerized auto-start, failure of sub-standard parts and sewing machines
- b. Electrical - capacitors; high voltage; static
- c. Hydraulics - high pressure fluids
- d. Pneumatic - high pressure steam, gases, vapors
- e. Engulfment - oxygen deficient atmospheres

- f. Fire/explosion - extreme heat/cold, noise, vibration
- g. Work at Height – visibility, loading, unloading, etc.

2. Chemical Hazards

- a. Dusts and fibres e.g. heavily starched fabric materials, accumulated polluted air within production line, fibre/fabric dust and tiny fabric rags.
- b. Dangerous substances e.g. chlorine, oxygen, hydrogen
- c. Toxic, oxidizing, explosive, flammable, corrosive
- d. Hydraulic fluids, oils, acids, alkalis, organic solvents

3. Biological Hazards

- a. Pathogenic bacteria, viruses, parasites, insects, moulds and fungi.

4. Psychosocial Hazards

- a. Time pressure, long hours, shift work
- b. Poor work organisation, unsocial working hours

Activities

Activity: Visit a Garment manufacturing firm, discuss with maintenance team and prepare a report on various types of maintenance conducted by them.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive

Procedure:

1. Make a group of 4 students each.
2. Visit a garment manufacturing firm
3. Enquire about its maintenance activities.
4. Prepare a report of your observation with pictures.
5. Submit the report to the teacher for evaluation and feedback.

What Have You Learned?**A. Fill in the Blanks**

1. A clean and hazard free workplace ensures the _____ and health of the employees and visitors.
2. Overcrowding, together with improper storage of flammable materials, frequently creates serious _____ hazards.
3. _____ maintenance means routine maintenance, inspection and servicing of machines and systems to ensure smooth functioning and efficient production.
4. Locking out a machine means _____ of the power feeding the machine.
5. The environment in which the workers work should be free from _____ and steam.

B. Subjective Questions

1. What is maintenance? Briefly explain running maintenance.
2. What are hazards? Enlist different types of hazards.
3. Briefly explain activities of maintenance department.
4. What are the types of running maintenance?

Session: 2 Maintaining Cleanliness

Maintaining clean and organized premises is one of the biggest struggles of the job. Keeping the machines in the production line clean and in perfect working order and the aisles of work area free of debris with the minimum of effort is very essential. It requires a bit of effort and forward planning which can pay back several times with increased productivity.

The benefits of maintaining cleanliness

Working environment that is clean, safe, and efficient, motivates employees to take pleasure in their work. A place when clean also helps to make place look more organised and contributes to worker's efficiency.

COMPLIANCE WITH HEALTH AND SAFETY REGULATIONS /GUIDELINES

Section 11 of The Factories Act, 1948 suggests “Every factory shall be kept clean and free from effluvia arising from any drain, privy or other nuisance.”

Whereas Section 12 advise that effective provisions should be established in every factory for the treatment of wastes and effluents resulting from the industrial process carried out therein, so that they can be rendered harmless and disposed of.

Section 13 specifies that effective and acceptable provisions should be provided in every factory for securing and maintaining enough ventilation via the circulation of fresh air, as well as such a temperature as will provide reasonable conditions of comfort to workers and prevent danger to health.

Section 14 suggest how dust and fumes to be handled in a factory as- Every factory where, as a result of the manufacturing process, dust, fumes, or other contaminants of such a nature and to such an amount as to be hurtful or objectionable to the employees employed within are released.

CLEANING PRACTICES

The types of work perform in the industry premises will determine how frequently it needs to be cleaned, but one should perform two kinds of cleaning schedule- deep and regular cleaning.

1. Deep cleaning

Over time, the floor of industry gets dirty; dust and grunge also gets accumulated on equipment, which can affect productivity. In this case machinery needs to be cleaned deeply. Time required in cleaning depends on what kind of work is performed, and may be different for each section of the production processes.

Deep cleaning of working area takes several hours to clean surface, tools and machines, using heavy duty cleaning equipment.

To perform the deep clean, each cleaning / housekeeping staff should be assigned an area of the premises, in order to ensure accountability. Each housekeeping staff should then be provided with the equipment and supplies they need to thoroughly clean everything in their designated area. They should be provided training to use any special cleaning equipment if they require. One should schedule the deep clean during a slow production period or a non-working day, so that there won't be any loss of productive work hours.

2. Regular cleaning

A messy work environment doesn't reflect well on the business and may have an impact on work quality and production speed.

Frequency of performing regular cleaning depends majorly on two factors, which are:

- i. Type of work performed in the industry
- ii. Frequency of visit of clients and suppliers in the working area.

Following are the suggestion for Regular cleaning activities:

1. Employees should be instructed to clean up any spills, debris, rubbish, etc. as they appear to prevent them from causing any sort of health / safety hazards.
2. Providing employees with a buffer time of around 5 minutes, at the end of every shift, to get their workspace clean and tidy so the next person can use it straight away.
3. Providing employees with the suitable cleaning equipment and supplies like cloth, dustpan, brush, paper towels, etc. to clean up any spills and messes on their own.
4. Management should ensure the presence of waste and recycling bins at each work station. Management should also encourage the staff to dispose of waste as soon as it appears rather than leaving it to build up. They should also set up a rotation for emptying the waste bins so they don't overflow and become a hazard themselves.
5. Equipment not used regularly, should be kept covered and cleaned once a week, to prevent dust accumulation which may potentially affect its performance.

6. Management should invest in cleaning equipment because it helps in making regular cleaning routines easier, faster and efficient as possible.
7. Make an inventory of every item that needs to be cleaned in the industry that could help the staff to clean it more efficiently.
8. A regular cleaning routine chart can also be maintained by the management to keep a track of cleaning schedules.

DIFFERENT TYPES OF CLEANING EQUIPMENT, SUBSTANCES AND THEIR USE

A variety of necessary and vital cleaning equipment and substances are designed and available in various colours, materials, mechanisms, shapes, sizes and styles to meet a cleaning need. They are used to clean easily, effectively and efficiently.

Types and uses of cleaning equipment:

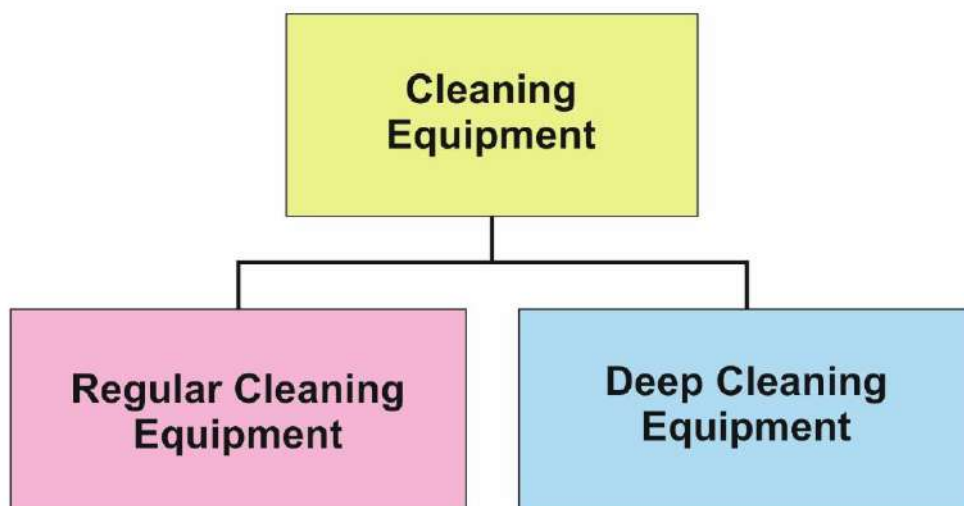


Fig.: 4.5 - Types of Cleaning Equipment

1. Regular Cleaning Equipments

- 1) **Broom** – It is a cleaning equipment made of bundle of straws or twigs attached to a long handle used to sweep the floor area.
- 2) **Dustpan**- A cleaning tool used to scoop the dirt and wastes from the floor.
- 3) **Water Hoses** – It is used to supply the water in washing, toilets and other cleaning units.
- 4) **Bucket and mug** - To carry water or any other cleaning substances within the premises area and to clean the work areas.

- 5) **Scrubber** - A scrubber is a type of wide brush with a long shaft used for cleaning hard floors or surfaces. At the end of shaft attached soft bristles to sweep dirt away and hard bristles for brushing. It may be used wet, with water or cleaning fluids. There may also be a detachable mechanism to fix mop cloth, either soaked in water for cleaning or dry for wiping dry surfaces.
- 6) **Dust cloth** – Dust cloth is used to clean all fine dust build up on any surface.
- 7) **Sponge** - A sponge is a soft, porous cleaning device that is used to clean impermeable surfaces. Sponges excel in absorbing water and other water-based solutions.
- 8) **Tissue paper**- Tissue is a type of absorbent and disposable paper. They can be used for the same things as regular towels: drying hands, wiping windows and other surfaces, dusting, and cleaning up spills. They're commonly found in public restrooms, where paper towels are thought to be more hygienic than hot-air hand dryers.

3. Deep Cleaning Equipments

1. **Spray cum vacuum suctioning cleaner**– Cleaning is done automatically. It is used in professional cleaning to apply a pressured, diluted cleaning solution to filthy or contaminated surfaces, followed by vacuum suctioning to remove the applied liquid, as well as the suspended solids and dissolved pollutants.
2. **A floor scrubber** – It is a floor cleaning device that cleans bigger areas by injecting water with cleaning solution, scraping, and removing the residue off the floor as a floor mop or floor brush.
3. **Auto floor scrubber** – Auto floor scrubbers are used to scrub a floor, clean of light debris, dust, oil, grease or other marks on floor. These machines have an automated system for dispensing cleaning solution and then vacuuming it up.
4. **Washing machine** - For bulk washing, the industry uses a high-capacity washing machine. For washing a smaller number of garments and sample pieces, the domestic washing machine is used for removing dirt of soiled mop clothes and other materials.
5. **Vacuum washer** - A wash-head of a vacuum washer sprays water without detergent and quickly suctions it out, generating a swirl of water. The drying time is substantially reduced by instantly reabsorbing the wash water. This cleaning approach is appropriate for both intermediate and basic cleaning. The technique works on all water-resistant surfaces, such as carpet, upholstered furniture, wooden floors, stone, plastics, and so on.

6. **Vacuum cleaner** - Both scrap and dust vacuum cleaners are used to clean all production line floors to remove the scraps and dust quickly to keep the working area clean and tidy.

Cleaning substances

Cleaning substances are hard-surface cleaners available in the form of liquids, powders, sprays, or granules and are used to remove dirt, including dust, stains, bad smells and clutter on surfaces. Purposes of cleaning agents include health, beauty, removing offensive odor and avoiding the spread of dirt and contaminants of work areas.

Disinfectants are cleaning agents that can kill bacteria or other microbes on surface of commonly used items like door handles, working tables etc. Other cleaning substance is degreaser which contain organic solvents and help to dissolve oils and fats.

a. Types of cleaning substances are:

1. Detergents

Detergents contain significant quantities of a group of chemicals known as 'Surfactants' They are similar to soap but are more soluble in hard water. It works by breaking up dirt or soil, making it easy to wash it away. Detergents are commonly available as powders or concentrated solutions. Detergents are also foaming agents of varying degrees.

2. Degreasers

Degreaser is used to remove grease from surface such as machine tops, counters and grill backsplashes. Methylated spirits or white spirit is commonly used for degreasing. It usually consists of strong alkalis, which can dissolve proteins and disperse grease or similar substances. It is generally based on caustic soda or sodium metasilicate. Sodium carbonate is also used as stain remover and for clearing blocked drains, cleaning all types of washers and other industrial equipment.

3. Abrasives

Abrasives are chemicals used to clean dirt from hard surfaces. In commercial industries abrasives are used to clean floors, pots and pans. The cleaning action of abrasives depends on the presence of fine particles which when rubbed over a soiled hard surface, dislodges the soil, remove tarnishing and surface scratches.

The various types of Abrasives are as follows:



Fig.: 4.6 - Types Of Abrasives

Fine abrasives are preferred over coarser ones. For example nylon pads, powdered pumice, feldspar, fine ash, filtered chalk, etc. are available in liquid, paste or powdered form.

Examples of Medium abrasives include rottenstone, salt, scouring powder and scouring paste. Scouring powders are made up of fine particles of pumice mixed with soap/ detergent, alkali and bleach.

Examples of Hard /coarse abrasives include bath bricks, sandpaper, powdered pumice, steel wool and emery paper. Abrasives are used along with other substances such as bleaches, anionic surfactants, alkaline builders and perfumes.

4. Acids

Acid cleaners are used to remove mineral deposits and for descaling or removing rust from any surfaces. Often, surfactants and corrosion inhibitors are also added to the acid. Acids dissolve metals and are thus used to remove metal stains, stains from deposits around taps, and tarnish on copper and brass, among other things.

Vinegar can also be used to clean hard surfaces and remove Calcium deposits.

- a. Acidic drain cleaners use sulphuric acid to unblock clogged pipes by dissolving greases, proteins and even carbohydrate-containing substances such as toilet tissue.
- b. Hydrochloric acid (HCL) is a common mineral acid. Stubborn hard-water deposits are removed by concentrated HCL. Dilute HCL is used for removing stubborn scales and deposits from sanitary ware.
- c. To remove tarnish and stains from metals such as copper and brass, acetic acid is used.
- d. Toilet cleansers use their acid content to clean and sanitise the W/C pan while also removing metal stains. They come in a variety of forms, including crystalline, powdered, and liquid.

- Powder toilet cleaners are in the form of solid salts, such as Sodium Hydrogen Sulphate.
- Liquid toilet cleaners contain other acids like dilute hydrochloric, phosphoric or formic acid.

These acids can convert the calcium carbonate into salts that are soluble in water and can easily be rinsed away. The toilet brush is used to scrub the toilet, remove stubborn stains and biological debris.

5. Alkalies

These are used in the form of liquid and powders. Many alkalis have bleaching properties. Alkaline cleaning chemicals include bleach and ammonia. These are dispersants that keep dissolved dirt and rust from resettling. Caustic alkalis are very strong alkalis. Cleaning products based on caustic soda are used to unclog drains and clean industrial equipment. Fats, such as grease, oils, and protein-based compounds, can be dissolved by alkaline cleaners. Strong bases, such as sodium hydroxide or potassium hydroxide, are found in cleaning products.

6. Neutral

Non-ionic surfactants are used in neutral washing products to disperse various types of dirt. Water is the most popular cleaning agent that, even when used alone, can dissolve some type of dirt. It becomes more effective when combined with additional cleaning agents, such as a detergent.

Water is used to carry the cleaning materials to the soil, suspend the soil, remove the suspended soil from the cleaning site and rinse the detergent solution from the surface.

7. Organic Solvents

These are substances that dissolve fats, oils, grease, wax, and other similar substances. Methylated spirit, white spirit (turpentine replacement), carbon tetrachloride, and other kinds of alcohol such as isopropyl alcohol and rubbing alcohol are all examples of organic solvents. The first two are extremely flammable, whereas carbon tetrachloride is toxic if inhaled and should never be used in a confined space. Many of them are commonly used to remove stains. They are irritating to the skin and might cause fires.

8. Other Cleansing Agents

1. Polishes

They smooth out the unevenness of the article's surface by applying a thin coating of wax on it. On the surface, it also serves as a protective layer.

a. Metal polishes - They come in the form of a liquid or a paste. Plate powder, mentholated spirit, and Ammonia are examples of fine abrasives

waxed with grease solvent and occasionally with an acid. When abrasive is rubbed on the metal's surface, friction is created, which removes tarnish and produces a shine.

b. Floor polishes – Spirit-based polishes, which come in paste or liquid form, may contain Silicon. It is suitable for wood, cork, linoleum, and magnesite floors. Water-based polishes are emulsions made up of fine natural and synthetic wax particles mixed in water. They can be used on thermoplastic, rubber, PVC, asphalt, and combination floors, as well as wood, cork, magnesite, and linoleum that has been sealed.

2. Floor Seals

These are placed as a semi-permanent finish to flooring surfaces to act as a protective barrier against dirt, germs, fluids, grease, stains, and bacteria. They protect the surface from scratches and make it easy to clean.

3. Bleaches

Bleaches are alkaline stabilised sodium hypochlorite solutions that are excellent for cleaning stained sinks, W/C pans, and other surfaces. They contain germicidal and whitening effects. With oxidation, bleaches can break down the tough stains. Sodium perborate is a common ingredient in detergents for washing fabrics.

4. Disinfectants and De-odorants

Disinfectants, antiseptics, and deodorants are not cleaning agents, but they are frequently used in cleaning operations. With their fragrance characteristics, these help to keep rooms free of infections and fresh.

a. Air sanitizer – It is a disinfectant/sanitizer that is used to disinfect or sanitise inanimate surfaces in the institutional and/or commercial environment by limiting or moderating the growth or development of microbiological organisms such as bacteria, fungi, or viruses. Some glycol vapours, such as tri-ethylene glycol, can operate as an air sanitizer.

b. Deodorants – It can hide unpleasant odours by interacting chemically with the particle that causes the odour or by having its own scent dominate. Restrooms, guestrooms, guest bathrooms, store rooms, and public areas such as lobbies all use them. Aerosol sprays, liquids, powders, and crystalline blocks are the most common forms.

c. Carbolic soap – It is also known as red soap, and is a mildly antiseptic soap that contains carbolic acid and/or cresylic acid, both of which are phenols and is derived from coal tar or petroleum. Carbolic acid is a skin irritant that is utilised in a wide range of industrial and consumer products.

5. Glass Cleaners

Glass cleaner comes in sprays or liquid form and is made up of water-miscible solvents. It's frequently used with isopropyl alcohol, as well as modest amounts of surfactants and alkali, to boost the cleanser's polishing effect. It can be sprayed directly onto windows, mirrors, and other glass surfaces, or it can be applied with a soft cloth and then rubbed off with a soft, lint-free glass cloth.

6. Metal cleaners

Metal cleansers contain chelating agents, abrasives, and surfactants for cleaning stainless steel sinks, faucets, metal trim, silverware, and other ferrous metals. These agents include citric and phosphoric acids, which are nonaggressive. Stainless steel, nickel and chromium cleaners contain lactic, citric or phosphoric acid.

Nonferrous metal cleaners contain ammonia, ammonium oleate, stearate and chelating agents like ammonium citrate and oxalate.

7. Absorbents

They carry out the action by absorbing the stain or grease. They are used only when the quantity of stain is too much. e.g. starch powder, fuller's earth, bran, French chalk powder, etc.

8. Anti-mildew agent

The chemical which protect the fabric material and garments from mould and mildew namely zinc chloride. It is used in textile / garments store and industries.

9. All-purpose cleaners -

All-purpose cleaners are usually concentrated solutions of surfactants and water softeners, which enhance the behaviour of surfactant when used with hard water. Common examples could be alkyl benzene sulfonates, anionic detergent and modified fatty alcohols.

SAFE WORKING PRACTICES FOR CLEANING AND THE METHOD OF CARRYING THEM OUT

Safe work practices are steps that guide a worker to perform a task with minimum risk to people, equipment, materials, environment and processes.

Safe working practices for cleaning are:

1. Understand the risks and hazards of the workplace during cleaning hours and take necessary steps to reduce risk of work-related injury.

2. Measures must be taken to ensure that cleaning operations can be carried out safely.
3. Use mechanical aids for cleaning, wherever possible.
4. Use ergonomically designed cleaning equipment, and re-arrange the work area so that everything is within easy reach.
5. Use necessary tools and personal protective equipment to carry out safe cleaning and maintenance
6. Wear protective equipment to suit the cleaning tasks. Gloves, full-face mask and apron can reduce risk of injury from concentrated cleaning substances and sharp equipment. Respirators may be used while cleaning filters.



Fig.: 4.7 – Personal Protective Equipments

7. Surrounding windows must have curtains or blinds which workers can adjust to prevent reflected glare during cleaning of production floors and machineries.
8. Humidity- It is important to maintain ventilation and humidity at a level which keeps the cleaner comfortable.

Methods for cleaning

It is the best practice to use a two or three-bucket system for mopping. This can be facilitated by using a cleaning cart or on a separate trolley, if a full cleaning cart is not available. The various methods and tools used in the cleaning process are as follows:

- 1) Two-bucket system – It is used for routine cleaning with one bucket containing a detergent or cleaning solution and the other with rinse water.

2) Three-bucket system- It is used to for disinfection. The detergent or cleaning solution is in one bucket, the rinse water is in another and the disinfection or disinfecting solution is in the third.

3) The rinse water bucket is used to rinse and wring out the mop before re-dipping it into the prepared solution. This extends the solution's useful life, saving both time and money.

The points to be kept in mind along to ensure proper cleaning are as follows:

1. Cleaning staff should be trained on appropriate use, application and removal of PPE for all environmental cleaning procedures and tasks for which they are responsible.
2. Put on all parts of PPE before entering a working area and remove it (for disposal or reprocessing, if reusable) before leaving that area.
3. Include required PPE for specific tasks in standard operating procedures and other visual job aids.
4. All PPE parts (reusable and disposable) should be available in sufficient quantity, well maintained (good quality, appropriately stored stocks) and clean before use.
5. Reprocess (i.e. clean and disinfect) all reusable PPE, at least once a day
6. Use reusable rubber gloves for cleaning.
7. To avoid interfering with gloves or affecting hand hygiene, keep sleeves at or above the elbow.
8. Wear rubber-soled closed toe shoes or boots (but not sandals), to prevent accidental injury.
9. Regularly reprocess all reusable items (i.e. thoroughly clean, disinfect, and dry).
10. Whenever a solution is changed, thoroughly clean, disinfect, and rinse equipment such as buckets and containers. To allow full drying, store them upside down.
11. Launder mop heads, floor cloths and soiled cleaning cloths at least once a day (e.g. at the end of the day) and allow them to fully dry before storage and reuse.
12. As directed by the manufacturer, reprocess all reusable materials and equipment in a separate area that is not used for other purposes.
13. Cleaning aids and products should be disinfected by thoroughly immersing them in boiling water or a disinfectant solution for the required contact time, then rinsing with clean water to eliminate any residue.
14. All reusable supplies and equipment should be kept clean and in good operating condition at all times. All reusable equipment should be evaluated on a regular basis and replaced or repaired as needed.

CARRYING OUT CLEANING ACCORDING TO SCHEDULES AND LIMITS OF RESPONSIBILITY

During the whole Garment production process, management should ensure that maintenance is coordinated, scheduled and performed correctly as per plan, and that the equipment or workplace is left in a safe condition for continued operation.

Environmental Cleaning guidelines deal with cleaning of the physical environment as it relates to the prevention and control of infections. Administrators, supervisors of housekeeping departments, infection prevention and control experts, construction/maintenance project supervisors, and public health officers are among those who fall into this category.

Cleaning according to schedule and responsibility

1. Written procedures for cleaning and disinfection of working areas and equipment should be followed.
 - Defined responsibility for specific items and areas
 - Clearly defined lines of accountability
 - Procedures for daily and terminal cleaning
 - Procedures for outbreak management
 - Cleaning and disinfection standards
 - Frequency of cleaning and disinfection.
2. Regular cleaning is necessary to maintain a standard of cleanliness.
3. Thorough and timely cleaning.
4. Monitoring of environmental cleanliness.
5. Ongoing review of cleaning procedures.
6. Cleaning schedules should be revised and developed, depending on:
 - Surfaces of high-touch or low-touch items / equipment,
 - The type of activity taking place in the area and the infection risk associated with it,
 - The vulnerability of the cleaning staff working in the area.
7. Each health care facility should have written rules and procedures for proper cleaning that clearly identify the frequency and amount of cleaning, as well as the cleaning authority.
8. Institutions should have in place systems with regard to frequency of cleaning. They should periodically conduct audits to ensure a clean environment during working hours.

9. Cleaning audit results should be evaluated and analysed, and cleaning employees should be given feedback.
10. To detect and solve cleaning issues, an action plan should be developed.
11. Knowledge of Personal Protective Equipment (PPE), hand hygiene and safe work practices is required for every cleaning staff.
12. All chemical cleaners and disinfectants should be properly labelled and kept to reduce the danger of contamination, inhalation, skin contact, or bodily damage.
13. Develop a facility-level monitoring and maintenance schedule that clearly describes the items, inspection frequency, and responsible personnel. Certain equipment, such as floor cleaners, may require regular maintenance checks by qualified personnel, as directed by the manufacturer.
14. Prepare and keep a service record, and make it available to the cleaning programme manager for examination.

Storage of cleaning substances

Cleaning agents with a longer shelf life are bought in bulk because of the reduced costs.

Points to be considered for storage of cleaning substances are:

- a. Storage racks should be strong enough to carry the weight of the items. Heavier containers must be kept on the bottom shelf.
- b. The store-room should always be well lit, well ventilated and clean.
- c. Ensure that the lids of the containers are tightly fitted.
- d. While issuing cleaning substances, use appropriate dispensers and measuring apparatus.
- b) Ensure that no residual deposits of the cleaning substance is left around the rims of the containers.
- c) Spillage should be avoided. And if spill occurs, it should be cleaned immediately.
- d) A systematic procedure should be followed for rotating stocks.
- e) Organic solvents, strong reagents and polishes should be kept away from heat sources.
- f) Stock check should be conducted at regular intervals.
- g) Store should be locked when not in use.

Activities

Activity: Prepare a geographical poster on PPE kit for safety.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive

Procedure:

1. Based on your understanding, prepare a graphical and interactive poster on PPE kit for safety.
2. Display the same in your class.

What Have You Learned?

A. Fill in the Blanks

1. Working environment that is clean, safe, and efficient, _____ employees to take pleasure in their work.
2. _____ cleaning of working area takes several hours to clean surface, tools and machines, using heavy duty cleaning equipment.
3. _____ are cleaning agents that can kill bacteria or other microbes on surface of commonly used items like door handles, working tables etc.
4. _____ is used to remove grease from surface such as machine tops, counters and grill backsplashes.
5. _____ cleaning is necessary to maintain a standard of cleanliness.

B. Subjective Questions

1. What are the benefits of maintaining cleanliness in apparel industry?
2. Describe various cleaning practices.
3. Briefly explain different types of cleaning substances.

Session: 3 Operation of Machinery, Equipment and Tools Safely and Correctly

The most important concept to remember is that - one is responsible for one's own safety and the safety of others. Most safety practices are though very common, unfortunately can be forgotten or overlooked unless one makes safe practices a habit or an instinct.

GENERAL SAFETY

By following the right procedures, workers will commit themselves to safety on the job and with that everyone will be benefited. Accidents may occur in many ways but most often can be based on ignorance or carelessness.

Safety precautions to be followed in work area are as follows:

1. **Walk instead of running** - People who rush around in the work area tend to increase the likelihood of an accident.
2. **Concentrate on work** - Stay completely alert on the job. Lack of interest, personal problems, and distraction by others can all lead to serious accidents in the working area.
3. Understand all the rules for operating equipments. Never operate the equipment until trained
4. Never work under the influence of drugs or alcohol.
5. Pay attention to moving objects, such as equipment, cloth cutter and driller, trolleys etc.
6. Avoid back strain by lifting the materials in proper position.
7. Accidents are caused due to overlooking of situations involved with risk. They are the result of not knowing the proper way to do a task, carelessly performing an operation or job, or not being consciously aware during the performance of a task.

The most common accidents in the working area are as follows:

a. Cuts

Cuts are too common in the industry because cutter, needle and other cutting equipment and tools are constantly in use. These cuts, as well as the severity of the cuts, can be avoided by following the right safety standards and following proper cutting methods.

Accidental cuts can be prevented if the expertise of using a cutter has been mastered. If they do occur, however, they should be treated safely and promptly. If infection sets in, it can result in more serious consequences.

b. Burns

Two types of burns occur in the working area-

- Minor
- Major

Minor burns occur when an exposed body part comes into contact with a hot surface, such as a steamer, a hot air oven, or concentrated chemical compounds.

When grease and chemicals are spilled, steam is discharged too quickly, or gas is released unintentionally, major burns occur.

Burns are more painful and take longer to heal than cuts. If a blister forms as a result of the burn, it should be treated as soon as possible by skilled medical staff.

c. Falls

Falls can cause some of the most serious injuries in the commercial industry. They may disable or incapacitate a person for life.

Falls are caused by extreme carelessness, wet floors and aisles, spilled materials, rags, grease, and by torn mats or spread rags and floor boards.

d. Strains

Strains are very painful and can cost you a lot of time at work. They are caused by carrying excessively heavy loads and using inappropriate lifting techniques. The majority of strains do not require medical attention, but they do necessitate time and care in order to heal properly.

HANDLING MATERIALS, MACHINERY, EQUIPMENT AND TOOLS SAFELY AND CORRECTLY

Employers are legally required to ensure that all equipment and materials supplied and used for work purposes are safe and does not pose a long-term hazard or risk to employee's health. Employees must have sufficient knowledge and training to handle materials, machinery, equipment and tools safely.

Safe practices to handle machinery, equipment and tools are:

1. Worker should possess the required know how of machinery, equipment and tools used for the job.
2. Routine maintenance must be carried out for all machines, equipment and tools.
3. Inspection at regular intervals to avoid wear and tear that might compromise safety.

4. Proper inspection of machines before use if the equipment's safety depends on installation
5. Noise and vibration levels should be checked and should not affect the operator and others.
6. Use hand-held tools safely- Anyone who uses a hand-held tool might be at risk of injury.
7. Band knives can cause serious wounds unless effectively protected. The circular knife of portable cutting machines should also be similarly protected.
8. If power presses are used, adequate machinery guarding, preferably fixed, is necessary to keep hands out of the danger area. Guards which prevent the pressure head from coming in close contact (most importantly, the hand) comes within the area are to be used. All presses, with their steam and pneumatic supplies, must be frequently inspected.
9. The drive motors and the needle are the two most dangerous parts of a sewing machine. Long lines of machines are still driven by under bench shafting in several places. When workers bend under benches to grab goods or fix belts, many entanglement mishaps might occur, so it's vital that this shafting is effectively protected by enclosure or close railing. Several different types of needle guard, which keep fingers out of the area of risk, should be used.
10. Handling old equipment - Ensure that it is safely and properly handled, stored, transported and recovered or disposed-off. If the equipment contains hazardous components, follow additional requirements under hazardous waste legislation.
11. Personal Protective equipment -Workers in many activities may require special protective equipment at work like helmets, bump caps or hair nets for the head crash and climbing. Hearing protection should be worn if exposed to high noise levels. Safety glasses, goggles and face shields can also be used to prevent eye hazards. As a standard, everyone should wear safety spectacles, goggles and face shields while using hand or power tools. Other PPE types likes Safety boots or shoes, gloves, gauntlets, mitts, cuffs, armlets or elbow protectors, overalls, boiler suits, high visibility clothing, leggings and gaiters for different activities in production line are required. Cutting machine operators must wear a protective glove, preferably of metal mesh.
12. Amputation and Caught-in Hazards – Machine guards are mounted on machines to protect employees from moving parts. Every day, equipment should be checked carefully to confirm that all guards are in place.
13. Chemical Hazards – Chemical-processing equipment can be a source of a variety of risks. Leaks can result in slipping dangers and chemical exposure. Chemical-leaking hoses could cause respiratory problems for

workers working nearby. As a result, caution must be given when using such devices.

14. Sharp Edges – Walking very close to machinery area, may be hazardous if sharp edges are not guarded. Hence equipment mounting brackets, signages and control boxes should be checked regularly to see if sharp edges are present.
15. Ensure that all equipment are well maintained and checked regularly. All equipment should be removed from the platform, at the end of the working day, and all power supplies should also be switched off.
16. Risks caused by workplace equipment - Cutting equipment, forklift trucks, equipment using heat or bright light, can cause risks not just during the normal operation of the equipment but also during installation, maintenance, repairs, breakdowns and servicing. Hence, use of appropriate warning signs is advisable.

Tool safety

Workers should be taught how to use tools in a safe manner. When tools are misplaced or handled incorrectly by workers, they can be dangerous.

Following are some suggestions for safe handling of tools are:

- a. Tools should never be tossed but should be properly passed from one employee to the next. Pointed tools should be passed with the handles facing the receiver or in their carrier.
- b. Workers carrying large tools or equipment on their shoulders should pay particular attention to the workspace clearances.
- c. Cutter and screwdrivers should never be carried in a worker's pocket. In a toolbox, pointed down in a tool belt / pocket tool bag, or in the hand with the tip always held away from the body are all acceptable ways to carry them.
- d. Tools should always be put away, when not in use. Leaving tools on an elevated structure such as a scaffold, poses a significant risk to workers working below the elevated structure.
- e. Fabric cutting tools - Cutting tool guard must be correctly set in order to give the necessary protection to the hand positioning the material, otherwise it may have a risk of accidental cuts. Supporting and maneuvering a cutting machine, while stretching across the cutting table, can present a risk of neck, upper-extremity and back disorders.
- f. Handling rolls of fabric, which can weigh up to 32 kg and must be lifted above the head onto a rack for spreading, also poses muscular hazards. Proper material-handling equipment can eliminate or reduce these risks.

- g. Sewing machine operators who operate in a seated position at poorly built workstations, executing the same operation throughout the workday with highly repetitive, time-pressured work are at a significant risk of acquiring musculoskeletal disorders. It is necessary to take proper precautions.
- h. Adjustable seats and worktables have the ability to reduce the dangers connected with using a sewing machine.
- i. Finishing workers, such as pressers, are frequently required to work standing and in static positions. Many of these occupations can benefit from the addition of chairs, stools, or sit-stand chairs. With a slanted mechanism, table tops may be adjusted to the correct height for the operator, allowing them to work in a more comfortable position. Hands, wrists, and arms can be relieved of some stress by padded table edges and appropriately made and sized equipment.
- j. Burns and ergonomic dangers can occur when using presses and irons. The majority of the presses are constructed with two-handed controls, which eliminates the risk of a hand becoming stuck in the press. Working on a pressing machine also puts you at risk for shoulder, neck, and back injuries due to repeated overhead reaching and standing while using the foot pedals. By properly situating the worker at the machine make this task safer and minimise the excessive stress.
- k. Ticketers who use manual ticketing guns to place tags on finished garments, are at risk of hand and wrist injury with highly repetitive operations. Automatic ticketing guns can decrease the force required to perform the operation, hence reducing stress and strain on the operator's fingers and hands.
- l. Many injuries in warehouse activities, such as lifting and overhead work, are caused by manual material handling. Mechanical material handling equipment such as forklifts and hoists, can reduce injuries caused by lifting heavy lifts. This can also be reduced by designing the distribution workplace with adequate material handling, such as positioning of conveyors and worktables at appropriate heights.
- m. Chemical exposure - Workers at every stage of apparel production may be exposed to the chemicals used in fabric finishing, the most common is formaldehyde. Formaldehyde releases into the air from fabric in the form of a gas. Workers may also have skin exposure to formaldehyde as they handle the fabric. Exposure to formaldehyde can be prevented by allowing the fabric to blow off-gas in a well-ventilated area before it is handled. Workers must wear gloves or apply protective cream.

Instruction for Safety at work place are as follows:

1. Keep the work area clean, tidy, well swept/washed and well lit. Floor should be level and must have a non-slippery surface.

2. Do not remove any guarding device; before operating, the operator must ensure that guarding devices are in position and good working condition.
3. Before measuring, cleaning, maintaining, or adjusting the machinery, follow the lock-out procedures.
4. Check and adjust all safety devices before operation.
5. Wear appropriate personal protective gear as prescribed, including CSA-approved safety glasses with side shields.
6. Ensure that all cutting tools and blades are clean, sharp and rust free and should be able to cut freely without extra effort.
7. Ensure there is enough space around the machine for operator, maintenance team and cleaning staff to do their job freely.
8. Ensure that all stationary equipment /machines are anchored securely to the floor.
9. Maintain distance with the cutting head and all moving parts of the machine, to avoid any accident.
10. Avoid awkward positions and postures as sudden slips could cause the hand getting harmed by the cutting tool or blade.
11. Do not leave machines unattended: turn OFF the power, when not in use.
12. Avoid distracting the operator; horseplay can lead to hazard and injuries.
13. Wearing loose-fitting clothing, gloves, neckties, rings, bracelets, or other jewellery that could get tangled in moving parts is not a good idea. Long hair should be kept out of the way, and rags should not be used near the machine's moving parts.
14. Return all portable tools to their proper storage place after use.
15. Clean all tools after use.
16. Use a vacuum cleaner or a brush to remove any rag cuttings.
17. Do not use compressed air, to blow debris from machines or from worker's clothes.
18. Keep the tools out of the aisles and out of the way of other workers. Knives and scissors must be sharp; dull equipment pose a greater risk than sharp ones. Cracked saw blades must be removed from service immediately; else, an accident may occur.
19. In the presence of combustible substances, iron or steel hand tools may produce sparks, which could lead to an ignition. Spark-resistant instruments made of nonferrous materials should be used near flammable gases, highly volatile liquids, and other explosive chemicals wherever this hazard exists.

20. Because power tools can be exceedingly dangerous if handled incorrectly, they must be equipped with guards and safety switches. Electric, pneumatic, liquid fuel based, hydraulic, and powder-actuated power tools are classified according to their power source.

USE CORRECT LIFTING AND HANDLING PROCEDURES

Musculoskeletal problems often emerge from poor work place or job design. Among the most common risky activities are as follows:

- Heavy loads
- Difficulty in gripping
- Excessive use of force
- Repetition
- Twisting and other awkward postures.

Some of these problems can be prevented in following ways:

1. **Manual handling of fabric rolls often close to machinery**, e.g. lifting to and from store room, in storage and dispatch areas, shelves, racks, trolleys and stillage, in quality control areas, reduces the risk of hazard.



Fig.: 4.8 - Manual Handling of Fabric Rolls

- a. Mechanical methods of handling the rolls, for e.g. on a conveyor and mounting on roller tracks.
- b. Organize rolls according to weight, so that heavier rolls are stored at a convenient height for handling. Stackers with adjustable widths are ideal for lifting and lowering rolls in storage facilities. A roller track attached to the top of two support arms allows rolls to be passed

easily to and from storage racks. The height of the trolley, which is supported by wheels, may be simply modified using a foot pump. The trolley is especially designed for transporting and moving rolls in the confined spaces of cutting section.

- c. Rolls exceeding a specific weight can be routed to a truck pick-up point for loading, while lighter rolls are diverted to a manual pick-up station, where personnel can pick up the roll before bringing it to the vehicle.



Fig.: 4.9 – Mechanical handling of fabric rolls

2. **Handling loosely folded cloth at intermediate stages of the production process**, e.g. moving cloth to or from machines, inspection and quality control areas, including lifting to or from weighing scales.

A lightweight 'stretcher-board' can be utilised to reduce the distance through which the load is lifted as well as increase its stability and give a more uniform distribution of weight between two lifters. It also helps with grip and the ability to implement the proper force during the lift.

1. **Handling boxes** –It happens mainly in delivery and storage areas, loading and unloading from vehicles. Suspended overhead rail system allows the load to move freely within the storage area. Pneumatic grippers grasp the box securely and scales built into a roller conveyor to compensate for the weight of the load, allowing it to be moved with minimal effort. The device can be adapted to suit a range of different items and containers. Use of mechanized procedures reduces the risks.
2. **Lifting to and from bins, stillage, trolleys and machinery**- Trolley fitted with a self-leveling base can be used. As the material is removed, the suspended base rises, maintaining a constant height from which to lift an inner lining thereby preventing material from being caught in the springs.
3. **Working around machinery** - Use a mechanical handling device suspended from an overhead support or rail that grabs the package's centre and assists with lifting and manoeuvring by balancing and supporting the load.

4. Maintenance tasks can lead to some of the most hazardous handling operations. Flexible multi-purpose handling devices like tool-box trolley can be more practical during machine installation to minimize repetitive lifting of heavy loads at work place.
5. Do not attempt to lift by bending forward. Bend your hips and knees to squat down to load, keep it close to the body and straighten the legs to lift.
6. Any heavy object should never be lifted above shoulder level.
7. Avoid turning or twisting of body, while lifting or holding a heavy object.
10. **Work safely at height or in a confined space** - Plan work to be carried out at height. Plan steps to reduce the risks of all falls liable to cause personal injury or to anyone on the premises / site, e.g. employees, visitors and contractors. Make sure roofs, working platforms and walkways are safe.

MAINTENANCE OF TOOLS AND EQUIPMENT

A competent employee must regularly inspect, test and maintain the machine's guards and safety control system with reference to manufacturer's instructions.

This will ensure the reliability and integrity of the safety system.

Maintenance and repair program should specify -

1. Where, how much, what type of and how often servicing is required?
2. Responsible worker for conducting the repair and maintenance program.
3. What standards to be used for performance testing and evaluation?
4. Program should be reviewed regularly to ensure their effectiveness. Develop, implement and maintain an accurate record of maintenance.

Following are the suggestions for Maintenance of machinery and tools

1. Carry out cleaning according to schedules and limits of responsibility.
2. Workers should take all practical steps to make sure all hazardous machineries are switched-off, before any cleaning or maintenance is done and whether it is safe to clean, maintain and repair. Standard procedures must be followed by trained workers for these activities to be performed safely.

3. Establish and follow a safe work system.
4. The machine should run at the slowest practical operating speed for cleaning, loading and setting up.
5. Restrict access and control of danger areas to one person only.
6. Emergency stop controls can be set within immediate reach.
7. Employers should maintain and keep machinery in sound operating condition at all times. They can manage the maintenance using:
 - a. Preventive maintenance schedules.
 - b. Regular inspections.
 - c. Unsafe condition reports and feedback.
8. Carry out running maintenance within agreed schedules.
9. Carry out maintenance and cleaning within one's responsibility.
10. Report unsafe equipment and other dangerous occurrences.
11. Ensure that the machine guards are in proper place.
12. Use correct lifting and handling procedures for the tools and equipment.
13. Store cleaning equipment and tools safely after use.

Activities

Activity: Visit a Garment manufacturing firm, discuss with the safety officer / team and prepare a report on safety measures adopted by them.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive
4. Camera for clicking pictures

Procedure:

1. Make a group of 4 students each.
2. Visit a garment manufacturing firm
3. Enquire about its safety measures.
4. Prepare a report of your observation with pictures.
5. Submit the report to the teacher for evaluation and feedback.

What Have You Learned?**A. Fill in the Blanks**

1. People who rush around in the work area tend to decrease the likelihood of an accident.
2. Accidental cuts can be prevented if the expertise of using a cutter has been mastered.
3. Equipment mounting brackets, signages and control boxes cannot be checked regularly to see if sharp edges are present.
4. Mechanical material handling equipment such as forklifts and hoists, can reduce injuries caused by lifting heavy lifts.
5. Workers should take all practical steps to make sure all hazardous machineries are switched-off, before any cleaning or maintenance is done and whether it is safe to clean, maintain and repair.

B. Subjective Questions

1. Enlist precautions which are taken while handling sharp objects.
2. What is safety? Why is safety important while working with machines?

Session: 4 Effective Oral and Written Communication at Workplace

Effective Oral and Written Communication not only helps in communicating one's thoughts clearly and concisely, but also to create focus, energy, and passion. Clear messages help to build trust and integrity between the writer and the reader. Well-written communication helps to define goals, identify problems and arrive at solutions. Employees must clearly write and talk so that other staff understand the situation without confusion.

Effective writing allows the reader to thoroughly understand everything that one is not able to say. Listening, reading, writing and talking are collectively known as effective communication skills. Good communicators have a wide range of skills and are able to adjust their communication style in response to the many variables they face at a given time.

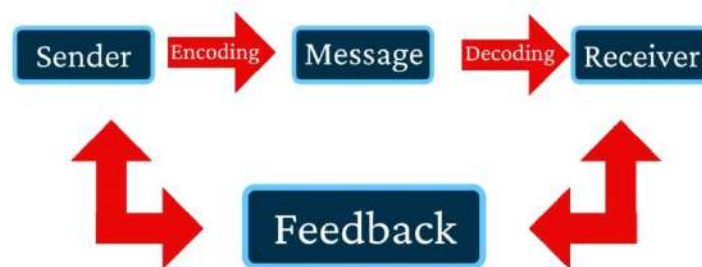


Fig : 4.10 – Communication Process

The Communication Process includes the following:

1. Sender

The sender bears the responsibility for ensuring that the message is understood and that the expectations for deliverables are clear. The sender should also consider any obstacles that may prevent the recipients from understanding the message. Languages, ethnic cultural beliefs, degree of education, and/or experience are all barriers.

2. Message

Verbal, non-verbal and written communications are affected by the sender's tone and method of communication. While sending a written message, the sender must be sure that it is professional, precise, clear and in simple language. Written communications are open to interpretation by receiver. Proof the written communication for typographical errors, grammar,

punctuation and sentence structure to reduce the chances of miscommunication.

3. Method and Environment

Messages are conveyed through channels. These channels are affected by the method and environment which is chosen to communicate. All written communications are one-way communication, as there is no opportunity for people to ask questions, provide feedback, express concern or gain clarification during or immediately after communication.

4. Receiver

Messages are delivered to the concerned receivers. Receiver enters into the communication process with ideas and feelings that influence his understanding of the message and send their response.

One of the indicators of a high-performance culture is open communication in the workplace. Workplace communication is the process of exchanging information and ideas within a company. Effective communication, on the other hand, occurs when a message is sent and received correctly.

a. Effective communication at workplace is center of all business goals. Its benefits are :-

- It avoids confusion
- It provides purpose
- It builds a positive company culture
- It creates accountability

b. Skills that employers mostly seek are:

- Oral communication
- Listening
- Written communication
- Public speaking
- Adaptability

c. The importance of good communication at workplace

At all levels of an organisation, effective communication is critical to attain productivity and maintaining healthy relationships. Employers who devote time and effort to establish open lines of communication will quickly gain employee trust, resulting in increased productivity, output, and morale. Employees should be able to effectively communicate with their co-workers, managers, and customers. The message is the outcome of the encoding, which takes the form of verbal, nonverbal, or written language.

THE LINES OF COMMUNICATION, AUTHORITY AND REPORTING PROCEDURES AT WORK PLACE

Lines of communication can include a chain-of-command that requires employees to communicate only with their direct superior. Workplace communication is the process of exchanging information and ideas, both verbal and non-verbal, between one person/group and another person/group within an organisation. To establish and manage, various lines of communication within a business is essential so that all workers and managers can contact the communicator, for example a manager communicating to an employee and an employee to a customer.

Protocol is a set of guidelines regarding the chain of command for how various members of an organisation must communicate with each other.

1) Owner to Manager

The company owner provides directions to manager as well as any update or news he wants to give employees through manager.

2) Manager to Employee

Managers must delegate specific duties to workers and provide directions about work projects. A manager commonly communicates through regular meetings with the entire department. Manager may also schedule yearly employee review sessions with individual workers to discuss performance and productivity.

For example, a flow chart of reporting and conducting maintenance in an industrial set-up is given as below:

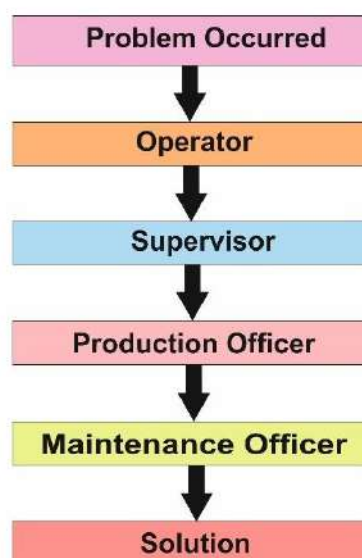


Fig.: 4.11 - Flow Chart of Maintenance

3) Employee

A line of communication is also established between employees / managers and outside business contacts. Certain employees of a manufacturing unit may have to communicate directly with representatives of companies to supply raw materials, submit orders or request information.

4) Communication with Customers

Possibly the most important line of communication at a business is between the employees of a business and its customers. In some cases, certain employees are authorized to speak to clients for business contacts.

Reporting procedures at work place

Effective communication in the workplace is imperative in a leadership role. Having effective communication skills is the key to good leadership. In turn line of communication begins in descending order, i.e. reporting procedure begin from customers to employee, employee to supervisor, supervisor to manager and from manager to industry owner.

Ways of reporting procedures for effective communication at workplace are as follows: -

1. Open Meeting

It is easier to communicate in the work place situation via open meetings. In this kind of forum, workers will hear, see and feel it. This oral communication is one of the best approaches to communicate effectively with a team.

2. Emails

In official settings, written communication via email remains potent. It will enable to pass messages to the members of the team without pulling them out of their workstations.

3. One to One

Workers understand better when we talk to them on a one-to-one basis. Ensure to maintain eye contact with them to enable the message to sink in.

4. Create a Receptive Atmosphere

To effectively communicate with the team, one must create an interesting atmosphere which is open for communication.

5. Display Confidence and Seriousness

Ensure that one must display confidence and seriousness because if team members notice any uncertainty and lack of seriousness while communicating with them, they are likely to treat the information with disregard.

6. Use Simple Words

To be effective in the communications with the team members, use words that are easily understood.

7. Use Visuals

Place visuals at strategic positions around the work place of the team. Delivering messages both through sight and sound gives room for better comprehension.

8. Listen to the Team Members

Encourage team members to open up so that the leader can be well informed while communicating with them.

9. Use Body Language

The message will be conveyed much more quickly and effectively through body language. When communicating with your team, master the skill of utilizing body language. Smiles, handshakes, and eye contact should all be used.

10. Use the Appropriate Tone of Voice

Use the appropriate tone of voice to communicate the message to the team so that the message is not misunderstood and discourage / frighten the receivers. Voice modulation in such scenarios help to be beneficial.

11. Be clear

Being clear to communicate to the team members makes it easier for them to understand the message. Make a message to the point for better comprehension. Keep the focus of point to be conveyed straight forward.

12. Encourage Feedback

Do not just talk and walk away, give room for feedback so that one can measure the effectiveness of the style of communication. It will also afford the privilege of knowing if the message was well understood.

13. Gesticulate

Use the hands to demonstrate the message. Make hand motions and signals to establish the seriousness of the subject matter while communicating with the team members.

14. Be Appreciative

Always remember to thank the listeners for their time after each communication session. Working hard on these communication strategies and establishing ground rules to keep everyone up to date will ensure a smooth project conclusion. Lines of communication make it easier to not only express the information effectively, but also to respond quickly in order to avoid missed opportunities or late work delivery.

THE IMPORTANCE OF COMPLYING WITH WRITTEN INSTRUCTIONS

A written communication is always put into writing form and used when the audience is at a distance or when record is required or where its preservation is essential and required as an evidence. It is in the form of instruction, orders, rules and regulations, policies, procedures, posters, memos, reports and information bulletins.

1. The importance of written instructions is mentioned as below:

- a. It keeps evidence of what has occurred or what was stated.
- b. It keeps permanent record for future use.
- c. It reduces the chances for misinterpretation and distortion of information.
- d. It is more reliable when transmitting lengthy information on financial, production or other important data.
- e. It provides an opportunity to put up their grievance in writing and get it supported by facts.

2. Comply with industries written instructions

- a. Carry out work functions in regulatory and accordance with legislation and organisational regulations, guidelines and procedures.
- b. Seek and obtain clarifications on policies and procedures, from the authorized person.
- c. Apply and follow the policies and procedures within work practices.
- d. Provide support to the supervisor and team members in enforcing these considerations.
- e. Comply with health and safety and security related instructions applicable at workplace.
- f. Use and maintain personal protective equipment as per protocol

- g. Carry out own activities in line with approved guidelines and procedures.

3. Writing Care Instructions

Care instructions should be written in the form of notices or signages to help employees remind of care or caution to be followed with regard to machinery or wet floor or any hazardous situations.

Equipment operating procedures / manufacturer's instructions

The manufacturer of machines, as well as the operator, both should take all technical and organisational measures, in order to ensure the safety of machine operators. It includes the general rules for approaching safety issues that should be taken into account by machinery designers in the design process e.g. inherently safe design, safeguarding and protective measures, information for use, mode of application, conformity assessment procedures etc. Use of machine operating manuals should be encouraged to employee designated to use particular machine.

Implementation of safety measures by the manufacturer

The manufacturer of machinery should eliminate hazards or reduce risks associated with these hazards by applying safety measures in the following order:

1. Inherently safe design

Hazard can be eliminated through the right choice of the machine design and features and minimizing personal exposure to hazards, through reduction of the number of un-necessary interventions within the danger zones. All accessible parts of the machine should have no sharp edges, sharp corners, rough surfaces, protruding parts, etc. Many hazards of the machine can be eliminated by means of choosing proper shapes and employing proper arrangement of mechanical parts.

2. Safeguarding

The hazards that cannot be eliminated using the inherently safe design approach should be reduced by means of the application of guards or protective devices. Covers, doors, fences, etc. also perform guarding functions. Guards should be difficult to remove or switch off, situated at a proper distance from the danger zone and allow performance of required operations like installation, tool changing or maintenance, guard locking, providing only limited access to the area where the operations are to be performed and without the necessity for removal.

3. Protective device

Protective devices that do not create actual physical barriers perform their protective functions by means of generating a signal that stops a dangerous motion of a given machine element. When it is impossible to apply guards, sensitive protective devices are used to reduce risk. There are several types of these devices. Optoelectronic protective devices such as light curtains, scanning devices like laser scanners and pressure-sensitive devices, mats, trip bars, trip wires etc. are often used.

4. Functional safety of machinery control system

If failure of a control function performed by a control system can result in an immediate increase in risk, then this function is named a “safety function”. Generally, safety functions can be implemented for the reduction of risk associated with the improper machine operation, failure of technological processes and mechanical hazards.

The safety functions included in manufacturer’s instructions are:

- a. Safety-related stop function initiated by a safeguard
- b. Manual reset function
- c. Start/restart function
- d. Local control function
- e. Muting function
- f. Monitoring of safety-related input values
- g. Response time
- h. Monitoring of safety-related parameters such as speed, temperature or pressure
- i. Reaction to fluctuations, loss and restoration of power sources.
- j. Common cause failure factor
- k. Components and elements to achieve emergency stop function
- l. Measures for escape and rescue of trapped persons
- m. Measures for isolation and energy dissipation
- n. Provisions for easy and safe handling of machines and parts
- o. Measures for safe access to machinery.

5. Information for use

Despite the adoption of measures for inherent safe design, safeguarding and protection, the user is informed about machine design and their parts, running and maintenance of machine.

- a. The information may be in the form of accompanying documents and instruction manual, on the machine itself, on the packaging and by other means, such as signals and warnings outside the machine. Information and

warnings on machinery is provided in the form of readily understandable symbols or pictograms. The operator must have facilities to check the operation of the warning devices all the time.

b. Visual signals, such as flashing lights and audible signals such as sirens may be used to warn of an impending hazardous event, such as machine start-up or over-speed.

c. All the necessary markings on machine itself

- For unambiguous identification,
- In order to indicate compliance with mandatory requirements,
- For safe use.

d. The instruction handbook or other written instructions includes all information for safe commissioning, operating, adjusting and maintenance of the machine.

e. Implementation of safety measures by the user of machinery and work equipment. Work equipment should be properly adapted to the work without impairment to their safety or health.

6. Additional safeguarding

The employer should ensure that work equipment is installed, located and used in a way ensuring that the risks to the operators and other workers have been reduced. In particular, sufficient space between moving parts of work equipment and fixed or moving parts should be allowed with movable guards or protective devices.

7. Use of personal protective equipment

Technical safety measures comprise personal protective equipment. These are devices or equipment designed to protect worker against single or multiple risks that may affect health or safety at work.

Personal protective equipment also comprises,

1. A unit constituted by several devices or appliances which have been integrally combined by the manufacturer for the protection of an individual against one or more simultaneous risks, e.g. a helmet coupled with a visor and/or hearing protection.
2. A protective device or appliance combined or separately, with personal non-protective equipment worn or held by an individual for the execution of a specific activity e.g. clothing or knee protectors included in trousers used for performing work while kneeling.
3. Personal protective equipment should include the items such as:
 - 1) **Clothing** - Well-fitted pants and jackets with all buttons fastened. Sleeves should be close fitting, hair nets and Aprons made of non-combustible and flame-resistant materials.

- 2) **Footwear** – Approved and sturdy footwear with non-slip sole and a closed toe and closed back.
- 3) **Hand protection** - Natural rubber latex gloves, synthetic rubber gloves, and vinyl gloves or thick plastic gloves.
- 4) **Eye protection** - Safety goggles or masks
- 5) **Respirators** - Properly fitted to provide the best protection from inhaling harmful fumes or vapours.

8. Work organisation and procedures

Proper work organisation is important in ensuring safe operation of the work equipment. All operations should be performed according to established safe working procedures. The employer should take necessary measures to ensure that the use of work equipment is restricted solely to persons given the task of using it. Written permission for conducting high risk works should be issued namely, repairs, modifications, maintenance or servicing.

SUGGESTIVE STANDARD OPERATING PROCEDURES OR INSTRUCTIONS

a. SOP for machine inventory including spares, tools and tackles.

- Receipt of material against packing list/indent.
- Machine taken for installation as per requirement.
- After installation machine is numbered. Record is to be maintained in Asset register / computer excel sheet.
- Machine is not issued to production until the numbering is complete.

b. SOP for machine installation

- Arrange the related person from agencies to install the machine.
- After installation arrange to train production from company technician.
- Hand over the bobbin/bobbin case or related material use to run machine to production department.

c. SOP for maintenance of utilities - air/water/steam related

- Making indent for materials for installation.
- After receiving of materials from vendors, installation from vender.
- Looking After the maintenance of Steam Generator and Air compressor.
- Operating of steam generator and air compressor in shift timing.

d. SOP for machine's preventive maintenance

- Preventive maintenance schedule is prepared.
- As per schedule, preventive maintenance is done and record is maintained
- All weighing scales shall be calibrated once a year and certificate is obtained.
- Maintenance department shall inform the purchase department regarding renewal of AMC (Annual Maintenance Contract) at least 1 month prior to its expiry.

e. SOP for machine breakdown maintenance

- Breakdown intimation is received from concerned department.
- Breakdown maintenance is done considering type of fault.
- Record of breakdown maintenance is maintained in the breakdown maintenance register.
- Electrician repairs all electrical faults and maintains a register for electrical repair and breakdowns.
- A machine history record shall be maintained for all machines.

f. SOP for calibration of measuring instrument & Light Illuminations record

- Any machine having measuring instrument should be calibrated yearly.
- The calibration check list shall be maintained for all such instruments.
- The maintenance in charge shall keep the certificates of calibration in a file.
- Actual date of calibration shall be maintained in the machine history sheet.
- Monthly light illumination shall be recorded in all working area on the production floor.
- At least once in 6 months, illumination checking is done and record is maintained

Activities

Activity: Prepare a graphical poster on SOP instructions.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive
4. Camera for clicking pictures

Procedure:

1. Based on your understanding, prepare a graphical and interactive poster on SOP instructions.
2. Display the same in your class.

What Have You Learned?

A. Fill in the Blanks

1. Well-written _____ helps to define goals, identify problems and arrive at solutions.
2. Verbal, non-verbal and written communications are affected by the sender's _____ and _____ of communication.
3. Use of _____ manuals should be encouraged to employee designated to use particular machine.
4. When it is impossible to apply guards, _____ devices are used to reduce risk.
5. Written permission for conducting high risk works should be issued namely, _____ or servicing.

B. Subjective Questions

1. Which are the ways to create effective communication at workplace?
2. What are SOPs? Briefly enlist SOP for maintenance of a needle detector machine.

Module 5**Health, Safety and Security at Workplace****Module Overview**

Health, safety and security are one of the most important aspects of human concern at the workplace. Therefore, we should aim at building a working environment which provides and maintains highest degree of physical, mental and social well-being for workers in all occupations.

Industries and organisations should focus on health and safety related practices at workplace and should ensure availability of all the basic facilities like safe and clean drinking water, clean rest rooms, proper ventilation and lighting facilities etc.

With the advent of technical advancements in the form of imported machineries and others services in the apparel industry, we should give more emphasis on the principles of ergonomics and occupational psychosocial factors.

Thus, the benefit of maintaining occupational health, safety and security are:

- i. Reduced work related injuries
- ii. Make the working conditions healthy and safe in the interest of workers, employers, as well as the public/society at large
- iii. Reduce the risk of potential accidents and emergencies
- iv. Preparedness with suitable responses to accidents and hazards

Hence, workers should be trained to identify and report to seniors/supervisors or any other authorized personnel in case of any malfunctions in machinery and equipments, emergencies and take necessary corrective actions for the same.

Learning Outcomes

After completing this module, you will be able to:

- Analyze Compliance to health, safety and security requirements at workplace
- Explain Potential safety risks and emergencies

- Identify and report malfunctions in machinery and equipment or any other hazard at workplace
- Explain reporting emergency situations

Module Structure

Session-1	Compliance to Health, Safety and Security Requirements at Workplace
Session-2	Potential Safety Risks and Emergencies
Session-3	Identifying and Reporting Malfunctions in Machinery and Equipment or any Other Hazard at Workplace
Session-4	Reporting Emergency Situations

Session 1: Compliance to Health, Safety and Security Requirements at Workplace

Safety and security of the workplace greatly depends on the enforcement of safety policies and rules of the industry which also ensures compliance with health and safety standards. Compliance is obtained through specific efforts made to reduce the risk of potential hazards and accidents at the workplace.

It is increasingly observed that the health, safety and security of workers are subject to a variety of risks. Inculcation of safety culture in the working environment along with strict guidelines on safe work procedures significantly reduces the risk of potential hazards/accidents.

HEALTH AND SAFETY RELATED PRACTICES APPLICABLE AT WORKPLACE

Apparel industry is a labour oriented industry. Workers are the main resources and all companies must follow certain practices applicable at workplace for maintaining health and security of their workforce.

Following points must be taken care–

- Ensuring availability of fully stocked first aid boxes at every designated location according to the floor plan/layout.
- Fire extinguishers should be placed at clearly marked areas at regular intervals



Fig.: 5.1 (a & b) - HEALTH AND SAFETY RELATED PRACTICES

- It is advisable to maintain an accident register. This helps in record keeping of various accidents, their causes and the damages. The information in accident registers can be useful in prevention of accidents in future.
- Factories should ensure proper positioning of emergency lights on work floor leading the pathway to exit.
- It is essential to ensure that all fire-fighting equipment such as extinguishers are regularly inspected and kept in good working order.
- Exit signs should be clearly marked and displayed.

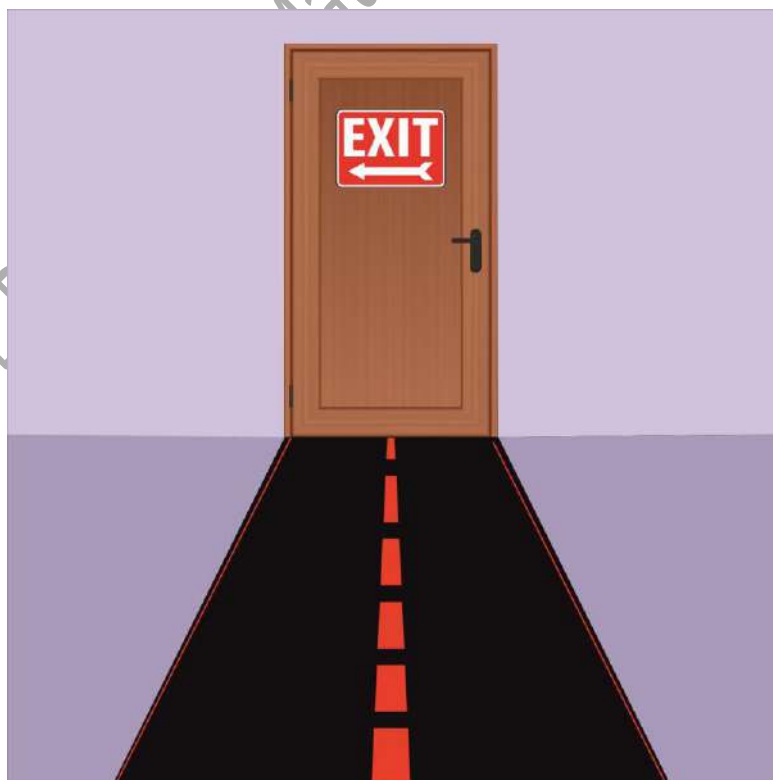


Fig.: 5.2 – Exit Sign

- Yellow lines should be marked on the factory floor to demarcate the pedestrian pathway from the space allocated for machines.



Fig.: 5.3 – Yellow Demarcation for Pedestrian Pathway

- Aisles should be designed wide enough and should not have any obstruction in between to prevent any accidents during movement of men and material.
- Cables /Wires should never be left loose or visible hanging at the floor.
- Proper lighting with well-distributed artificial light to ensure effective use of available daylight should be arranged.
- Good general ventilation plus local exhaust ventilation to remove air contaminants at the source should be ensured.
- A clean lunch room commonly called as canteen area for employees to have their meals should be allocated.
- Oily floors are a common cause of accidents and fire hazard. Splash guards and drip pans should be installed wherever oil spills or drips may occur. Prevent accidents by keeping oil and grease off the floor.
- Adequate supply of clean and pure drinking water must be ensured for all workers.
- Workers should be encouraged to use mask and gloves wherever required.
- Provision must be made for clean washrooms/restrooms for workers and staff members
- Mock drills must be performed with the workers at regular intervals for them to be prepared in case of any spills, fire, and explosion.
- It is advisable to carry out the regular maintenance of the factory if something gets broken or damaged. It must be ensured that same be replaced or immediately corrected/fixed, for example - defective ladders, broken handrails, steps, etc.

- Factories should have a provision of regular maintenance programmes like inspection, lubrication, upkeep and repair of tools, equipment, machines and processes.

Compliance to health, safety and security requirements at workplace will help in eliminating risk related to potential accidents and hazards caused by unfavourable conditions and thus, will lead to efficient, smooth and uninterrupted production cycle and safe and secure work environment.

ACCESS TO CLEAN DRINKING WATER AND SANITARY FACILITIES

Welfare facilities like access to clean drinking water, hygienic and well ventilated wash rooms or rest rooms are a vital part of good working conditions in an industry.

Clean Drinking Water -

Provision of safe and clean drinking water, beverages or an adequate meal is mandatory for a healthy workforce.

Availability of clean drinking water is indispensable for all workers. Mostly in hot weather conditions a lot of water is lost from the body in the form of sweat or evaporation. If appropriate arrangements are not provided then the workers might have to make the arrangements by themselves or leave the workplace often in search of clean and safe drinking water.

In case of impure or contaminated water being made available for the workers, it can be a cause of frequent transmission of diseases among them. If the workers get dehydrated, they can be tired, exhausted or fatigued and will be less productive in their outcome. Thus, provision of clean and pure drinking water should be made near the workstations. Preferably, cool drinking water must be provided specially in hot weather conditions. For example - Arrangements of water coolers or water dispenser with clean and cold drinking water can be done at regular intervals near the workstations.

Sanitary Facility –

All industries must ensure appropriate sanitary facilities for workers within the working premises. Hygienic and disinfected toilets/restrooms are very important. It is also requisite to equip adequate number of washrooms as per the number of workers/staff working in an industry and ensure their maintenance and cleanliness.

To ensure mental and physical well-being of workers and to prevent spread of any diseases within the working premises, it is vital to have proper sanitary facilities. These facilities also helps in improving rate of production as healthy workers are more efficient in their working and it simultaneously leads to lower rates of absenteeism within the workforce.

Therefore, developments in sanitary facilities should be undertaken and materials incorporated should be durable, easy to clean and quick drying

likes tiles. Frequent cleaning and maintenance of toilets is also recommended.

The following points must be considered-

- i. Sanitary facility must be within easy access from the work site.
- ii. These facilities must be well enclosed, well lit and adequately ventilated.
- iii. Proper supply of toilet paper and other hygiene supplies must be ensured.
- iv. It must be equipped with a covered garbage bin.
- v. Hand claning facility like a wash basin along with soap and a sanitary way to dry hands must be installed in every single toilet facility.

Activities

Activity: Prepare a report on various types of health and safety related practices applicable at a work place. Place it a file and submit the same.

Materials Required:

1. Writing material
2. Adhesive
3. Ruler

Procedure:

1. Visit an apparel industry, learn and understand about the health and safety related practices being followed.
2. Make a report on the same.
3. Submit the report in your class.

What Have You Learned?

A. Fill in the Blanks

1. _____, safety and _____ are one of the most important aspects of human concern at the workplace.
2. _____ should be placed at clearly marked areas at regular intervals.
3. Factories should ensure proper positioning of _____ lights on work floor leading the pathway to exit.
4. _____ floors are a common cause of accidents and fire hazard.

5. _____ leads to lower rates of absenteeism within the workforce.

B. Subjective Questions

1. Mention points that must be taken care for maintaining health and safety related practices at workplace. (Any Five)
2. Write about the importance of having access to clean drinking water and sanitary facilities at the workplace.

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Session: 2 Potential Safety Risks And Emergencies

Safety risks are chances of any detrimental or unfavourable result/outcome or anticipated losses (For example – Deaths or injuries caused due to malfunction of a machine in a factory) caused due to natural or human induced causes.

Emergency is an unforeseen and unexpected incident demanding instant/immediate response. It may be caused due to natural, technological or human causes/forces.

Preparedness against any potential safety risk or emergency is essential to protect the workers against any damage of life and property. The impact of any emergency crisis can be substantially reduced by active participation of employees and employers in safety related practices at workplace.

RESPONSE TO POTENTIAL ACCIDENTS AND EMERGENCIES

Ergonomically designed work areas have several benefits like:

- Increased human comfort
- Reduced stress and fatigue
- Increased workers rate of production
- Reduced risks of potential accidents/hazards.

Some of the factors that must be considered to be prepared are as follows–

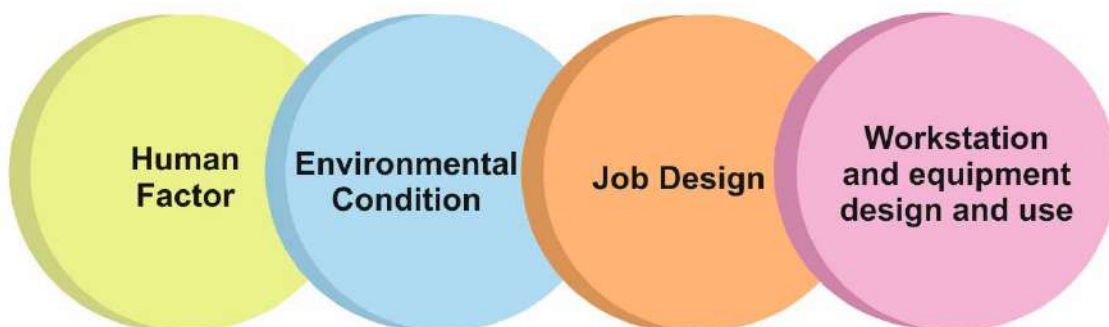


Fig.: 5.4 – Factors Responsible for Potential Accidents

1. Human factors

Major human factors that affect are:

- Physiological
- Psychological

- Physical
- Cognitive

Human factors mostly include all physiological and psychological factors. Workers dimensions like reach, posture and strength must be considered while considering the human factors. Physical injury can cause a negative impact on employee's work performance and lead to increase cases of absenteeism. Cognitive factors equally affect the job performance. For Example – Lack of proper guidance and feedback from supervisors or lack of autonomy can often cause stress and result in lack of motivation among workers to perform well.

2. Environmental conditions

Environmental Conditions in particular like proper lighting facilities, sound & vibrations, extreme temperature, humidity and poor air quality may affect the workers performance. Undesirable and unpleasant levels of a fore mentioned condition can be detrimental to workers health and safety.

3. Job Design

A job must be designed keeping in mind the anthropometric characteristics such as age, gender, height, weight and ethnic differences. Proper use of ergonomics is advised as tasks can be either static or dynamic. Static tasks need a sustained position which can cause stress and pain in the lower back, neck and shoulder areas. Whereas, dynamic tasks require continuous body movements, very fast movements can cause fatigue, pain, weakness and sometimes lead to injury if performed with excessive force. Poor job designs and lack of proper training to workers can often be cited as an underlying cause of injuries among workers.

4. Workstation & Equipment Design and Use

A workstation should be designed keeping in mind factors such as workable heights, placement, reach, requirements and postures. Adjustable equipments make it possible to adapt it in accordance to individual requirements. Tools and equipments must also have flexibility of usage and it should not force the workers to use an unnatural body posture or motion while using it. All equipments and workstation should work together in a well-coordinated system to ensure a smooth flow of production and safety of workers.

The following points are mostly the main sources of accidents at the workplace-

- Spills
- Slippery surfaces

- Obstructions (Unclear Pathways)
- Broken equipments/tools.
- Machineries which are not regularly checked/maintained and kept unrepaired.
- Areas lacking safety signages (Fire and Emergency Exits)

Therefore, workers and employers must take collective active measures to adhere to an accident prevention plan. The following points must be considered to strengthen the safety practices at work and be prepared with response to any emergency situation –

1. Regular programmes and training sessions must be conducted on safety related practices at workplace for workers. It can be held in the form of mock drills for evacuation during fire hazards or any chemical spills, quick response training during accidents/emergencies etc.
2. Ensuring installation of proper lighting system, to have a well-lit and clear visible job site/ workstation, to avoid any potential risk associated with darkness around the workplace.



Fig.: 5.5 – Proper Lighting System

3. Clearly visible and demarcated safety signs must be placed/ installed wherever necessary, which will help in clear identification of hazardous areas and associated risk like obstacles in pathway, toxic chemicals being stored, slippery floor, emergency exit doors etc..
4. In case of a chemical or any hazardous spill, ensure to always suppress and hold the spill and always keep the cleaning equipment at an easily accessible location.
5. Ensure to conduct routine audits and checks for all potential safety hazards and emergencies to prevent any actual loss.

6. In case of an emergency/ accident, evacuate the premises and helps fellow workers in need.
7. Proper ventilation facilities must be ensured throughout the working place to avoid inhalation of any toxic chemical or foreign particles by the employees at the time of any chemical leak.

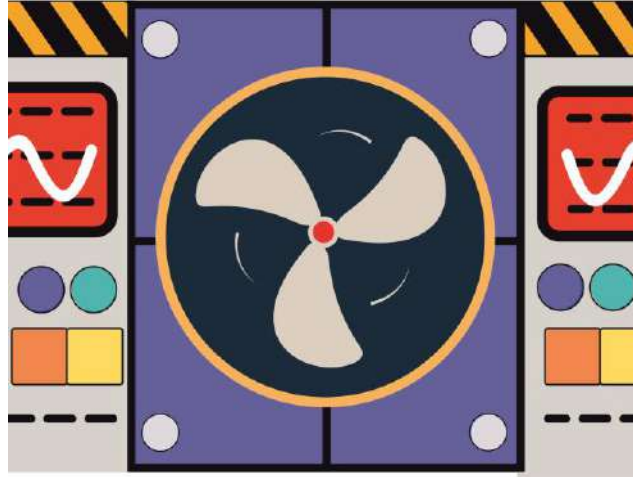


Fig.: 5.6 – Proper Ventilation System

8. Workers must be instructed to follow all the rules with regards to the attire/uniform permitted for their job role. For example- Workers working in the dyeing unit must wear slippage resistant shoes to prevent any fall or trips which can lead to injury.
9. Employees in an apparel or home furnishing industry need to spend long hours in the sitting posture which can cause soreness in back and reduced circulation in legs. Therefore, to avoid any pain or injury, adjustable chairs must be provided to ensure easily adjustable heights, seat tilt and backrest positions.
10. Chairs with a cushioned/contoured seat, which distributes the worker's weight ensuring no body part feels all the pressure must be preferred.
11. To minimise awkward body postures, chair should also be placed at an appropriate distance from the workstation, so that the workers can perform their tasks without stretching their elbows away from the body.
12. Workstation design must ensure that all the tools and materials are positioned to reduce risk of tilting too far or leading to an awkward body position. It can increase the level of stress/strain in arms, shoulders and the neck. This greatly increases the risk of injury which can be avoided by proper preventive actions and adhering to ergonomically designed principles of work.
13. Workers who need to stand for prolonged hours must be provided with anti-fatigue mats. These mats help in better circulation and reduce fatigue in lower body parts.
14. Emphasis should be given on frequent short breaks to stretch and change body positions. It allows legs, back, neck and eyes to rest in between

long working hours. Shorter breaks often reduce the risk of discomfort, fatigue and injury among the workforce.

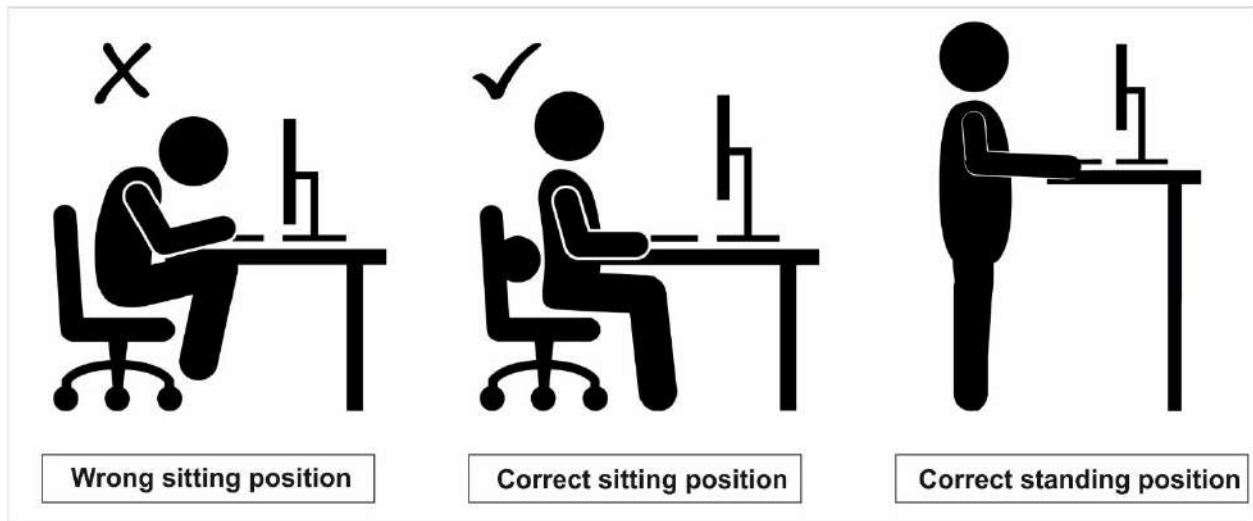


Fig.: 5.7 – Correct Body Positions

MAINTENANCE AND STORAGE OF PROTECTIVE EQUIPMENTS

An effective system of maintenance and storage of protective equipments and tools is crucial to provide the level of protection they are intended or designed for. Therefore, one must always maintain an inspection schedule for all the protective equipments and tools including its shelf life. Inspection must include thorough check against any breaks, tears or any other visible sign of damage.

Maintenance also includes cleaning, examining, repairing, testing and replacing (in case it cannot be repaired) tools and equipment on a scheduled basis. Some Examples of Protective equipment are – Gloves, masks, protective helmet, safety shoes/boots, protective eye wear, ear plugs etc.

Adequate and proper storage facilities for storing of all protective equipments and tools when not in use is must. Employers must provide for a clean and safe place for the same. For example – Pegs for hanging clothing or safety helmets, case for safety glasses, a zip lock bags, shelves or racks for storing of ear muffs, gloves, masks etc.

The facility of storage must be appropriate and sufficient to protect the protective equipments from any kind of contamination, loss or damage due to coming in contact of water or sunlight. The place should be dry, clean and well sanitized and should also not be subjected to extreme temperatures.

It should protect the equipments against ageing and damaging. For hygiene purposes, one must consider separate storage from ordinary clothing storage in cases where protective equipments may become contaminated during use.

Duties of the workers in respect to protective equipments –

5. All the protective equipments must be worn by the workers in accordance to the work requirements and instructions provided.
6. Workers must ensure that all the protective equipments must be stored back carefully to their designated/ allocated storage areas after use.
7. All the protective equipments must be inspected before use and any defect observed must be reported to the supervisor.
8. It is the responsibility of the worker/employee to take due care of the protective equipments provided to them and do not make any modifications to the same them unless and until they are authorized and trained for its maintenance activities.



Fig.: 5.8 – Proper Storage Facility for PPEs

Activities

Activity: Prepare a chart with details of potential hazards and their possible solutions applicable at a workplace.

Materials Required:

1. Writing material
2. Coloured pencils/pens
3. Eraser
4. Ruler

Procedure:

1. Collect information about the potential hazards and their possible solutions applicable at a workplace.

2. Take a chart paper and prepare the chart by placing the collected information on it.
3. Display the chart in your classroom.

What Have You Learned?

A. Fill in the Blanks

1. _____ is an unforeseen and unexpected incident demanding instant/immediate response.
2. _____ to a worker can cause a negative impact on his/her work performance and lead to increase cases of absenteeism.
3. A _____ should be designed keeping in mind factors such as workable heights, placement, reach, requirements and postures.
4. To minimise awkward body postures _____ should also be placed at an appropriate distance from the workstation.
5. Shorter _____ often reduce the risk of discomfort, fatigue and injury among the workforce.

B. True or False

1. Tools and equipments should not have flexibility of usage and it should force the workers to use an unnatural body posture or motion.
2. Workers and employers must take collective active measures to adhere to an accident prevention plan.
3. Safety signs must not be displayed clearly.
4. Routine audits and checks for all potential safety hazards and emergencies are not necessary.
5. Workers must be instructed to follow all the rules in regard to the attire/uniform permitted for their job role.
6. Emphasis should be given on frequent short breaks to stretch and change body positions.
7. The facility of storage for protective equipments must be appropriate and sufficient to protect the protective equipments from any kind of contamination, loss or damage.
8. Workers must not ensure that all the protective equipments must be stored back carefully to their designated/ allocated storage areas after use.

Session: 3 Identifying and Reporting Malfunctions in Machinery and Equipment or any other Hazard at Workplace

Identification of malfunction in machinery/equipment or any other hazard at a workplace is an indispensable component of the health and safety management system. It is the first step in development of the safety procedures for prevention and controlling of any hazard.

A hazard is a source of any potential damage.

Identification of hazards includes the following:

- Identifying both existing and prospective workplace hazard
- Assessing or calculating the risks involved
- Determining and implementing the control measures
- Reviewing the situation

Workers must be trained to identify all the possible hazards associated with their job role and also know the control measures during an emergency situation to prevent any injury to people, property or environment from the same.

Workers must follow all the safety practices which comply with the standard operating procedures. They must regularly check/inspect the workplace, equipments, machines, tools for any abnormal changes, conditions or unanticipated emissions/leaks for identification of any perilous conditions. In case of an unsafe condition they must report them to their supervisor or authorized personnel and collectively work towards resolving the same.

Workers are exposed to various potential hazards while working near or on a machine. There is a risk of injury caused due to entanglement, friction or abrasion, cutting, stabbing or getting trapped in the moving parts of the machines. Therefore, it is suggested that workers must follow guidelines related to dress code/uniform/using protective equipments and safe working practices applicable while working near or on a machine.

Risk is also associated with noise, vibrations and radiations generated by the machines. Levels of the aforementioned must be monitored to prevent any health issues among workers. Workers must be also able to identify and report any sparks or loose fitting which can cause fire accidents or electric shocks, over speeding or under speeding of parts of machines etc.

The following points must be checked for identification of possible hazards linked with machines, equipments, tools and services –

1. Identify use of the machine by considering the following points-

- Cycle time & rate of production.
 - Intended use of the machine.
 - Different types of materials being used on it.
 - Amount of force being generated.
 - Range of motion or moving parts of the machine.
2. Identification of space required by the machine for safe operation of all tasks including access for maintenance and repairs.
 3. Identifying the environmental limits of the machine such as the operating temperatures, humidity levels, and noise generation level.
 4. Consideration of all the tasks performed by and on the machine such as – trial runs including
 - Regular operations
 - Change of tools
 - Scheduled maintenance of machine
 - Recovery from crashes/timeouts.
 5. Identification of operation/ motions of machine such as –
 - Parts of the machine which are movable.
 - Range of motion of moving parts.
 - Type of motion (e.g., rotation, shearing, bending, cutting, punching)
 6. Identify the entanglement hazards of the machine that can be caused due to coming in contact with rotating or moving parts of the machine.
 7. Identify hazards due to cutting, where a worker can come in contact with cutting tools, saws, routers, knives, or any other sharp material.
 8. Identify any potential hazard due to slips or fall in and around the machine due to the spills on the floor surface such as lubricating oils, grease, water etc.
 9. Identifying any ergonomic issues caused while operating the machine. Ensure the following -

- Workers do not have to reach exclusively.
- Workers do not have to use excessive force.
- Workers do not have to perform movements at a very high speed.
- Machine cycle must be planned in accordance with the workers capacity
- Workers can perform work in multiple positions that promote a neutral body position.
- Work surface is adjustable according to the workers requirements.
- Worker has enough room space to move without striking anything.

10. Identify all the work that a worker must perform while operating the machine such as-

- Feeding stock into the machine
- Removal of final products from the machine
- Removal of scrap
- Scheduled and regular cleaning parts of the machine.
- Pre and Post shift safety checks.

Therefore, it is advisable to identify, report and correct any prospective risk which can lead to a hazard at a workplace, thereby ensuring prevention and control of any injury or loss.

SAFETY SIGNS AT WORK PLACE AND THEIR MEANING

1. **First aid:** It is an emergency treatment given to a sick or injured person. The main aim of first aid is to preserve life, prevent from further harm or injury and to start the recovery process. A first aid kit is used in giving the first aid. The sign of first aid which is mostly used is as follows –



Fig.: 5.9–First Aid Sign

2. **Fire exit:** this sign marks the way to nearest exit point during a fire accident.



Fig.: 5.10 – Fire Exit Sign

3. **Assembly points:** This signage marks the area where the workers need to assemble in case of any hazard or emergency.



Fig.: 5.11 – Emergency Assembly Sign

4. **Fire equipment:** This sign marks the location of storage area of firefighting equipments such as fire extinguisher, fire blankets etc.



Fig.: 5.12 – Fire Equipment Sign

5. **Smoking ban signs:** These signs mark areas/location where smoking is not allowed/prohibited.



Fig.: 5.13 – Smoking Prohibited Sign

6. **Machinery Hazards:** These signs mark the areas near the machinery where one needs to be cautious of his/her movements and actions for safety purposes.



Fig.: 5.14 – Machinery Hazards Sign

7. **Hazardous substance:** This sign marks the areas where any hazardous or toxic substance is stored.



Fig.: 5.15 - Hazardous Substance Sign

8. **Pedestrian access and no access:** These signs indicate where pedestrians can and cannot access respectively.



Fig.: 5.16 – No Pedestrians access Sign

9. **Flammable substance:** This sign denotes the location of any extremely flammable substance being stored there.



Fig.: 5.17 - Flammable substance Sign

10. **Wet floor:** This sign marks the areas with wet/ slippery floor to be cautious while crossing it.



Fig.: 5.18 - Wet Floor Sign

Activities

Activity: Prepare a report with pictures and details of all the safety signs applicable at workplace.

Materials Required:

1. Writing material
2. Pictures of safety signs
3. Coloured pencils/pens
4. Ruler
5. Adhesive

Procedure:

1. Collect pictures and information about all the safety signs applicable at workplace.
2. Prepare a report with all the details.
3. Submit the same in your class.

What Have You Learned?

A. Fill in the Blanks

1. A _____ is a source of any potential damage.
2. _____ of hazard is the first step in development of the safety procedures for prevention and controlling of any hazard.
3. _____ hazards of the machine can arise due to coming in contact with rotating or moving parts of the machine.
4. _____ is an emergency treatment given to a sick or injured person.
5. _____ signage marks the area where the workers need to assemble in case of any hazard or emergency.

B. Subjective Questions

1. Mention points to be considered for identification of possible hazards in a workplace. (Any Five)
2. Identify and name the following safety signs –



Session : 4 Reporting Emergency Situations

Identifying and reporting all hazards/emergency situations is of vital importance for the safety and security of the workplace. All such unsafe incidents must be immediately and directly reported to a supervisor or any other concerned authority. All the workers must be trained so that in case of any hazard or potential emergency situation, the standard procedure could be followed like reporting it to the supervisors expeditiously.

Employers must develop and set up a hazard reporting system for the workers. Implementation of such a system will make the workplace a safer and secure place to perform and work well.

All the workers must be trained in hazard identification and its control measures. They must be trained on the following points

- **Identification of an unsafe condition** – This involves recognising any incident that might cause harm or damage to the people, machinery, tools or property. For example - Containers that are not labelled properly, insufficient stairway lighting, broken machine guards **etc.**
- **Identification of an unsafe act that must be reported** – This involves any inappropriate behaviour that could lead to an accident/cause an injury or any other damage. For Example – Worker using equipments in a careless manner or not using PPE while running a machine.
- **Procedure followed if any unsafe condition is witnessed** - Any such unsafe situation should be immediately reported to the supervisor. It can be in a form of a verbal complain, a hard copy of a form to be filled or an online complain system on the website of the company.
- **Follow up action post reporting the incident** – Workers must expect that the corrective and preventive measures will be taken within the expected time frame. In case of any delay, they must report it again till any necessary action is taken for the same.

Taking necessary preventive actions can save from potential injuries or any significant losses caused due to sheer negligence. Reporting of hazards ensures that employees are involved in the safety management system of the company and are aware of the safety guidelines followed in the company.

For making the reporting by the workers smooth and easy, the following points can be considered –

1. Making reporting procedures easy and possible.
2. Ensure that there is no negative impact or punishment linked with the process of reporting an emergency.
3. Workers who report the hazards or any unsafe incident should be rewarded or recognised for the same.
4. Posters or signs to encourage reporting of any unsafe practices at work can be placed within the work premises.

REPORTING PROTOCOL AND REQUIRED DOCUMENTATION

In case of any hazardous condition, all workers are responsible for reporting it to their supervisors. Supervisor is responsible to take corrective steps and in case of serious conditions, must fill the hazard reporting form along with the assistance of the worker. The following steps must be followed –

- Workers who identifies an emergency condition/concern must report to his supervisor immediately.
- The supervisor must respond promptly, take necessary actions to resolve the matter within the reasonable time limits.
- If the supervisor is not able to solve the situation, then he/she must report the matter to the manager or to concerned senior authority.
- The employee is responsible to draft a document/fill the form (Depending on the rules of the company) outlining the concerns and fact.
- The senior committee members will investigate the matter and ensure correction of the unsafe conditions.

The process of reporting the hazard immediately allows the workers to report the unsafe conditions immediately. This process allows a fast response and prevent further damage. Hazards can be reported verbally or by filling a form, generally called as a hazard reporting form.

Hazard reporting form is a document which is used to report an unsafe incident/ accident at the workplace and ensures that it has been reported formally and necessary corrective steps have been taken. It is used by the first line workers – such as factory workers.

Hazards Reporting Form
Use this form to report safety concerns

Employee Name:		Employee Number:	
Department / Area:		Supervisor Name:	
Describe fully the safety concern or hazard:			
What can be done to make this situation safe?			
YES:			
YES	NO	Has the supervisor or his/her representative notified of the safety concern or hazard?	
YES	NO	Has the management been notified of the safety concern or hazard?	
Employee Signature:		Report Date:	

Fig.: 5.19 – Hazard Reporting Form

EMERGENCY RESPONSES DURING A HAZARD/EMERGENCY

Any kind of hazard or emergency can occur anywhere and at anytime. To prevent the amount of loss and damage caused due to such unwanted incidents, employers need to provide relevant training to their employees to be adequately prepared to deal with any undesirable circumstances.

Emergency response training can be very advantageous for the employees to acquire knowledge on how to respond to an emergency situation. Employees must learn life-saving skills and acquire knowledge to save themselves and co-workers during the course of any emergency.

It is advisable to designate roles and responsibilities to every employee in the form of tasks they must perform during an emergency and train them to be specialised to fulfil the requirements of specific roles. For example – specific employee may be trained to perform first aid in the event of any injury or specific group of employees must be trained to handle fire-fighting equipments in case of fire.

Details about the following equipments, people and locations must be displayed clearly at every workstation for reference for use during any emergency situations–

Location of emergency Equipments -

- Fire alarm
- Fire extinguisher
- Fire hose
- First Aid
- Panic alarm
- Personal Protective Equipments

Emergency contact numbers -

- Fire station and employee trained in fire hazard handling
- Ambulance and first aid attendant
- Police
- Hospital

EMERGENCY RESPONSE PLAN

An emergency action plan involves allocating designated actions that all the employees need to take for their safety during an emergency situation. Some of the suggested actions to be taken in case of an emergency like a fire or chemical hazard, injury etc. are as follows –

- In case of a fire accident or a chemical spill, one must try to move quickly towards the nearest accessible exit door.
- Walk, do not run during an emergency and do not use elevators.

- Help other co-workers to evacuate along the way to exit.
- In case of fire, if the fire alarm does not ring automatically, try activating the alarm manually for notification of all other employees.
- Exit the building/factory premises and assemble in the allocated area of assembling during an emergency.
- If any person gets caught in fire then try to extinguish their burning clothes by using the drop and roll technique, dousing with some cold water and using an emergency shower or using a fire blanket.
- If caught in the area filled with smoke, then try and stay in lower positions as smoke will rise to ceiling level first. Drop down to your hands and knees and crawl toward the nearest accessible exit point.



Fig.: 5.20 – Emergency Response plan

- In case of any toxic spill or leak, alert all workers in the immediate area of spill.
- Wear your required personal protective equipments (PPE) like gloves, protective eye wear etc.
- In case of a minor spill try to contain the spill with spill absorbent material and clean the area where the spill occurred.
- Try to seek immediate medical help in case of any exposure to the spill contents.
- In case of a chemical exposure to the skin or eyes, try to immediately clean it with cool water for at least 15 minutes.
- Do not attempt to move or reposition a victim in case of a muscle, joint or bone injury, sprain or fracture as it can further deteriorate/worsen the condition.
- If there is any open wound injury or bleeding wound, then try to cover the wound with dressing/first aid at the earliest.

Activities

Activity: Prepare a sample report of an emergency situation at the workplace.

Materials Required:

1. Writing material
2. Ruler

Procedure:

1. Study an emergency situation at a workplace.
2. Prepare a sample report of the emergency situation.
3. Submit the same in your class.

What Have You Learned?

A. Fill in the Blanks

1. All unsafe incidents must be immediately and directly reported to a _____.
2. _____ training can be very advantageous for the employees to acquire knowledge on how to respond to an emergency situation.
3. An _____ action plan involves allocating designated actions that all the employees need to take for their safety during an emergency situation.
4. In case of a fire accident or a chemical spill, one must try to move quickly towards the nearest accessible _____.

B. Subjective Questions

1. Describe briefly about how the workers must be trained in hazard identification and its control.
2. Mention suggested actions to be taken in case of an emergency. (Any Five)

Module 6**Industry and Organisational Requirements****Module Overview**

The Indian garment industry is well established and recognized worldwide and also enjoys a considerable demand from both domestic as well as global market. The growth of manufacturers and suppliers from developing countries like India, China, Pakistan, Bangladesh and others, and zeal to compete and offer products at competitive prices, the manufacturers have compromised with working conditions, safety and rights of workers. The recognition to Labour Standards and worker's rights, most of the international apparel buyers started focusing and pressurizing manufacturers to comply with the Labour Standards and Worker's rights. This resulted in increased awareness and compliance to code of conduct policies among Indian garment factories.

Indian apparel manufacturers and suppliers are not only bound to follow government guidelines but they also must comply with Social Compliance Standards and Code of Ethics. Such compliance is mandatory not only for the manufacturers but also for their vendors, distributors and other collaborators involved in the supply chain.

Learning Outcomes	
After completing this module, you will be able to:	
• Define Standard organisational compliance and related documents • Explain Customer specific regulations and requirements • Describe Ethical compliance and related documents • Explain Documentation and reporting of compliance deviation	
Module Structure	
Session-1	Standard Organisational Compliance and Related Documents
Session-2	Customer Specific Regulations and Requirements
Session-3	Ethical Compliance and Related Documents
Session-4	Documentation and Reporting of Compliance Deviation

Session: 1 **Standard Organisational Compliance and Related Documents**

WHAT IS ORGANISATIONAL COMPLIANCE?

Compliance means conforming to a rule. Compliance helps in better organisational control as it is a set of processes to ensure that the organisation as a whole abide by these set of regulations.

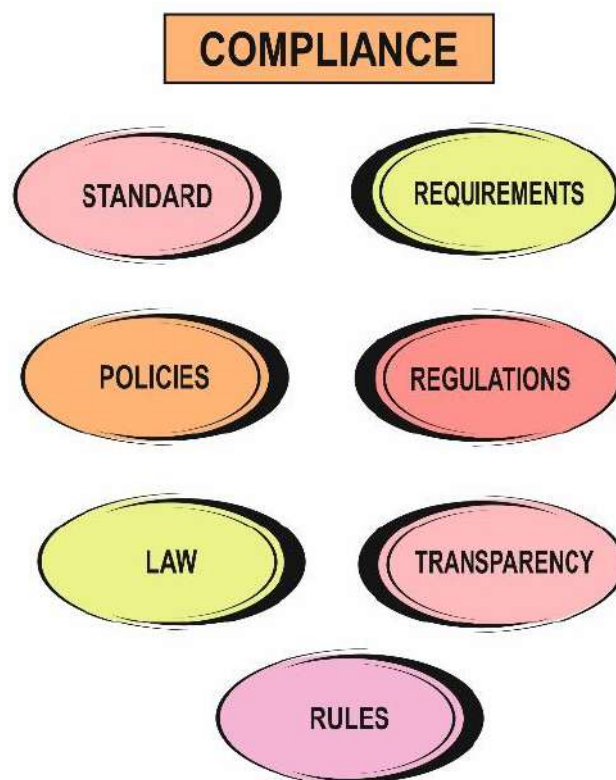


Fig.: 6.1 – Organizational Compliance

SIGNIFICANCE OF COMPLIANCE IN INDIAN GARMENT INDUSTRY

Compliance with respect to the garment industry must meet the audit requirements and refers to the following:

1. Quality of products
2. Safe and comfortable working environment

Apart from quality of products, International buyers are also demanding ethical manufacturing of products, which leads to the compliance of standards by garment manufacturers. The rise in export of garment

products increases the demand for social compliance has also increased in the Indian Garment Industry.

Social Compliance

Social compliance refers to compliance in respect to social responsibility, ethical treatment of employees and the working environment. A code of conduct is followed regarding employee wages, working hours and work conditions. In order to keep a check on compliance by manufacturing unit, regarding various environmental standards, a compliance audit is conducted regularly. Some of the common requirements of social compliance are as follows-

- i. **Child Labour**-Organisations must ensure no child under the age of 15 is employed.
- ii. **Forced Labour**- No person should be employed under any threat and if they have not offered their services voluntarily.
- iii. **Discrimination**- An organisation must not discriminate among its employees on factors like remuneration, promotion, training facilities etc.
- iv. **Working hours**- An organisation must comply with government rules and industry standards on working hours, break timings, public holidays etc.
- v. **Disciplinary Practices**- An organisation must not use any mental or physical abuse against the employees in the name of punishment.

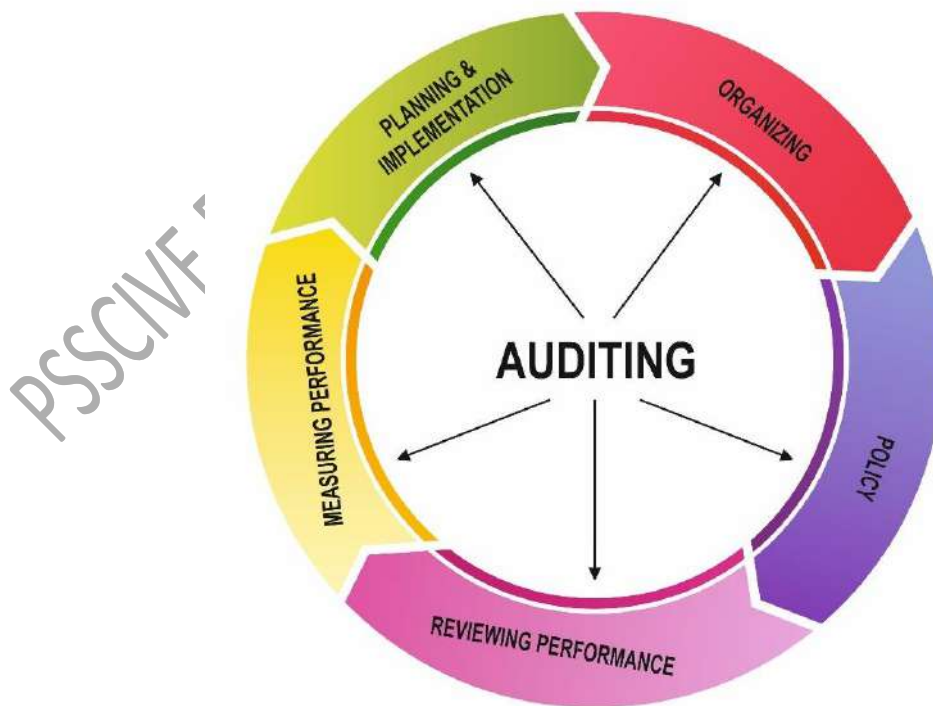


Fig.: 6.2 – Social Compliance

INTRODUCTION TO AUDIT

Audit means to officially inspect, check or examine. Thus audit in organisational terms means check or inspection of various departments, resources and finances of an organisation. Audit is conducted regularly to ensure that no fraud or scam is caused by the organisation.

Audits and assessments ensure safety management, Security Management, and Risk Management. Aim of Auditing is to adhere to the prescribed policies and procedures and to verify compliance with regulatory requirements and industry standards. It helps to ensure that all programs are properly designed and implemented. Further, audits also helps in identifying programme deficiencies so that recommendations can be developed for corrective action.

Audit in Garment Industry:

Audit can be done by:

1. Internal Auditor - Employees or heads of a particular department
2. External Auditor - An outside firm or an independent auditor.

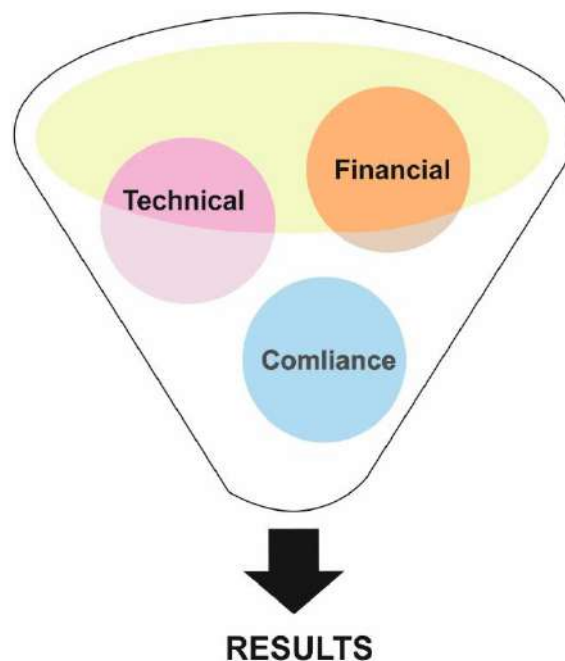


Fig.: 6.3 – Types of Audit

Compliance Audit

A basic Compliance audit may require the auditor to examine the rules, regulations, orders and instructions for their legality, adequacy, transparency and prudence. Auditors gather information through visual observation at the site, review of document and interviewing staff. This

collected data is then compared with the applicable permits and regulations to evaluate the compliance to the applicable legal requirements.

Following information may be collected and reviewed by an auditor during compliance audit-

1. Licenses, permits and facility information
2. Child labour
3. Forced labour and discrimination
4. Freedom of association and collective bargaining
5. Right of worker
6. Disciplinary practice
7. Working hours
8. Wages, benefits & compensation
9. Workplace safety
10. Occupational health & welfare
11. Environment management
12. Management practice & sub-contractor /supplier control
13. Training records
14. Company policies

Technical Audit

Technical Audit (TA) is a very crucial task for garment manufacturing unit. Every buyer conducts a technical audit before confirming an order to any garment factory. Many garment buyers have their own technical audit checklist, which may vary from buyer to buyer. Audit must be conducted in a routine manner at different stages of garment manufacturing. Through Technical Audit, auditors check the ability of a manufacturing unit to make export quality garments as per order and specifications. The initial step of a Technical Audit is to check the plant outline and its suitability to complete the order. The objective is to pick the right manufacturing unit for the order.

Following information is collected by an Auditor during Technical Audit-

- General Information about the Plant like number of staff members, production facility, location etc.
- Production capacity
- Versatility in product manufacturing
- Quality control of raw Materials
- In-house quality system
- Production planning & executions

- Process control
- Availability of in-house testing facility
- Availability of in-house design team
- Housekeeping and maintenance of instruments
- Quality assurance process
- Lighting, fire safety etc.

Financial Audit

Financial audit is an examination or inspection of accounts books by an auditor. It is then compared with physical checking of inventory to make sure that proper documentation is being followed. The objective is to confirm the accuracy of financial statements prepared by the organisation. All the public listed firms are required to get their financial accounts audited by an independent auditor, before the results for any quarter is declared. The idea behind financial audit is to check and verify the accounts by an independent authority to ensure that all books of accounts are maintained in a fair manner and there is no misrepresentation or fraud being conducted.

In India, independent financial audit for any organisation is conducted by chartered accountants licensed by The Institute of Chartered Accountants of India (ICAI).

Steps in auditing process:

Following are the four main steps in the auditing process:

1. **Defining the auditor's role and the terms of engagement.** It could be in the form of a work / authorization letter which is duly signed by the buyer.
2. **Planning the audit.** It includes detailed planning of deadlines and the departments the auditor would cover. Duration of audit may vary depending upon nature and area of work.
3. **Compilation of the information collected from the audit.** When an auditor audits the department, findings are usually put out in a report or compiled in a systematic manner.
4. **Reporting the result.** The results are documented in the auditor's report.

Phases of Audit:

There are three main phases of compliance audit in India:

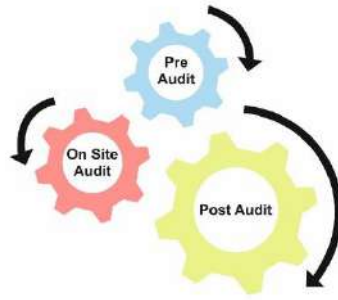


Fig.: 6.4 – Phases of Audit

i. Pre-Audit Phase

- Planning and organising the audit
- Establishing the audit objectives
- Scope and etiquette
- Reviewing the design of the programme by inspecting documentation.

ii. On-site Audit Phase

- Conducting personal interviews
- Reviewing records
- Making observations to assess programme implementation.

iii. Post-audit Phase

- Briefing the management about audit findings
- Preparation of Final report.

CORE LABOUR STANDARDS

International labour organisation has set rules for core labour standards, to protect the rights of workers and to ensure that worker get good working conditions.

Rules are set of four fundamental and universal Human Rights, as conceived by International Labour Organisation:

- i. Freedom from forced labour
- ii. Freedom from child labour
- iii. Freedom from discrimination at work
- iv. Freedom of association and right to bargain collectively.

In most countries, all the export-import trade agreements require both the seller and buyer to meet the International labour Standards specially on the issues linked with Child labour and rights of workers.

These are the minimum ‘enabling rights’ which workers need to defend in order to improve their working conditions, to work in freedom and dignity.

The aim behind this concept is to make sure that the apparel industries have labour contractors which don’t engage forced or child labour and get the supply chain of the suppliers audited.

Apparel Export Promotion Council (AEPC), which is an apex body of Indian apparel exporters, has designed a garment factory compliance program called ‘Disha’ (Driving Industry towards Sustainable Human Capital Advancement), with an aim to make India a global benchmark for social compliance in apparel manufacturing and export business. This Common Compliance Code project will prepare the Indian apparel manufacturers and exporters on a common platform towards a more social and environmentally compliant industrial environment.

Common Compliance Code

The common compliance code gives opportunity for the industry to negate international claims against child labour promotion in the garment industry. It also helps to improve the image of the industry and win more international businesses.

Some of the common compliance code guidelines for Indian Garment industry are:

- Employers must not be involved in unfair labour practices including child labour and forced labour.
- There should be no discrimination among workers’ remuneration for work of equal value on the basis of gender, race, religion, age, disability, sexual orientation, nationality, political opinion, or social or ethnic origin.
- Employers should not threaten female workers with dismissal or any other employment decision that may affect their employment status negatively, in order to prevent them from getting married or becoming pregnant.
- Employers should ensure that proper air ventilation systems are installed within their factory premises to prevent airborne diseases among workers.
- If workers wish to form organisations or participate in union activities, including strikes, employer shall not restrict the workers in doing so by use any form of physical or psychological violence, threats, harassment, or abuse.
- Workers should be entitled to at a day rest in a week. If workers are required to work on a rest day, an alternative rest day must be provided in next week.
- Workers should be provided with paid annual leaves as per local laws, regulations and procedures. Employer shall not impose any undue restrictions on workers’ use of annual leave or sick leave or maternity leave.

- Workers should be paid at least the legal minimum wage or the prevailing industry wage, whichever is higher.
- Employers should compensate workers for the hours they have worked. Workers engaged on a per piece rate payment scheme or any other incentive scheme, must be paid accordingly.
- There should not be any sort of unreasonable restraint in the freedom of movement of workers, including movement in canteen during breaks, using toilets, accessing water, or to access necessary medical attention.
- Garment exporters or manufacturer must ensure that none of their workers is less than 14 years of age, as per the guidelines for non-hazardous employment. Child labour is the most important concern in Indian Industries nowadays. Further, each worker shall have the right to enter into and to terminate their employment freely.

Indian apparel manufacturers must follow all the compliance related guidelines to comply with global standards. Compliance to such codes or guidelines also helps the industries to boost their image or to project a positive image and protect their goodwill in the market. The Indian garment industry must stress on strong compliance rather than competition of manufacturing cheaper garments.

INTERNATIONAL LABOUR STANDARDS

International labour standard is a set of legal standards and guidelines which set up basic principles and worker's rights at workplace. These standards aim at improving working conditions on a global scale.

Functions of International Labour Standards:

- To prevent disruptive competition through the defence of particular workers group and setting minimum wage and working conditions.
- To promote constructive competition through definite rights, for e.g. workers involvement in decision-making, improvements in productivity and motivation of workers, increasing aggregate demand and promoting the creation of jobs, active labour market policies and ways of adjusting socially desirable measures.

Corporate Social Responsibility

What is Social Responsibility?

Social responsibility is “an organisation's obligation to increase its positive impact and reduce its negative impact on the society”. It can also be known as “the concept that business entities should also be concerned with the welfare of the society at large”.

The social responsibility of an organisation is referred to as ‘Corporate Social Responsibility’.

Corporate social responsibility (CSR) essentially means that the organisation should work in an ethical manner and it should also be in the best interest of the various stakeholders. Nowadays, this concept of Corporate Social Responsibility in Indian garment industry is gaining great popularity. More and more organisations are trying to work in a way to protect the interests of the society at large along with the interest of its stakeholders including employees, customers and the suppliers.

Social Responsibility can be divided into two types:

a. Human responsibility refers to the responsibilities of the organisation towards the various ‘stakeholders’ in business parlance, including employees, shareholders, the government, customers, investors, suppliers, competitors and the society at large.

b. Environmental responsibility refers to the responsibilities of the organisation towards environment protection.

The scope of social responsibility extends beyond the legal responsibilities of an organisation. It has to be voluntarily fulfilled by the organisation; however there also are legal obligations.

Social Responsibility in the Garment Industry

The garment and textile industry is one of the largest industries in the world. It is also the biggest employer in India after agriculture. Globalization has made clothing affordable for all and competitive low prices. However, it has major negative impact on environment and society throughout the product life cycle. Production of textiles and garments requires consumption of vast energy. A considerable amount of wastes including sewage and discarded clothing is also generated which leads to the burden on the environment. Moreover, poor labour standards and poor working cum living conditions are additional outcomes of the ready-made Garment industry. Poor labour standards may include low wages, long working hours, hazardous work environment, workplace abuse and being excluded from unions.

Buyer companies in developed countries prefer outsourcing the production from overseas suppliers especially from countries where labour cost is considerably low, in order to keep the costing at the lower side as much as possible and also to avoid the ill effects of production and industrialization. Working conditions of labour and their human rights are a matter of great concern in developing countries such as in India, China, Bangladesh,

Pakistan and other Asian countries. This poor condition leads to many tragedies like factory fire and labour abuse that again results in poor life for workers and even death.

Textiles and garment firms are realising their responsibilities towards its stakeholders, environment and society. The ways in which a textile firm can fulfil its responsibility towards various stakeholders are similar to those of firms in other industries, as is evident from the suggestive points mentioned below:

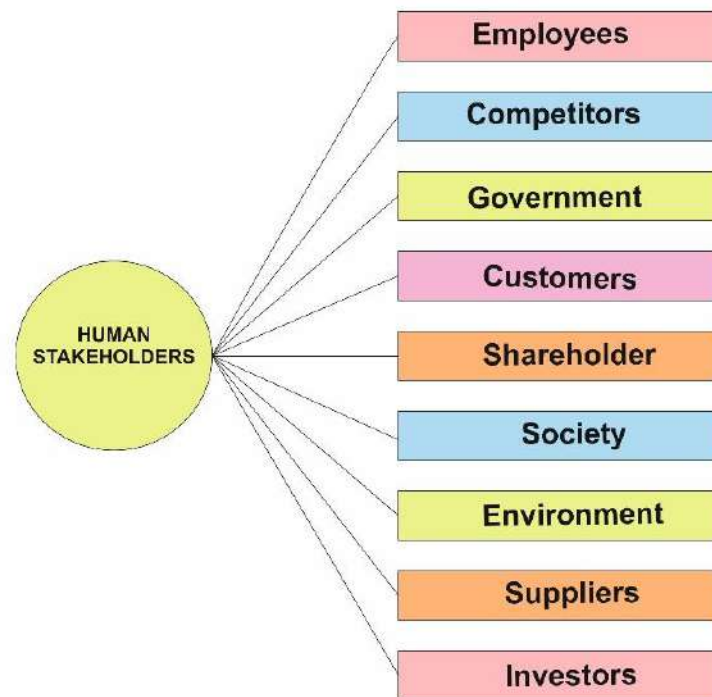


Fig.: 6.5– Stakeholders in Garment Industry

1. Towards employees:

- By having ethical recruitment, remuneration, promotion and other policies.
- By providing opportunities to the employees to voice their opinion and complaints and have an effective policy for the solution of these complaints.
- Ensuring a safe working environment for the employees.
- Having fair policies for the solution of employee disputes.

2. Towards shareholders:

- By representing a fair picture of the company's financial position and profit/loss to the shareholders.

- By rewarding them with a fair rate of dividend.

3.Towards the government:

- By providing the necessary information to the government as and when required.
- By paying taxes and dues timely.
- By abiding by the laws and regulations of the area in which the firm operates.
- Contributing to the economy through exports.

4.Towards customers:

- By providing quality products to the customers at reasonable prices.
- By undertaking constant research and development and coming up with innovative and more useful products from time to time.

5. Towards investors:

- By giving the investors a true and fair picture of the financial condition of the business.
- By ensuring a fair ROI (Return on Investment)

6. Towards suppliers:

- By ensuring timely and fair payment to the suppliers.
- By maintaining a good relationship with the suppliers.

7. Towards competitors:

- By indulging in fair and ethical practices, thereby raising the spirit of fair competition

8. Towards society:

- By involvement in activities that ensure development of area and society at large.
- By having a philanthropy arm to take care of the needs of the under-privileged.
- By creating job opportunities.

9. Towards environment:

- By ensuring the purchase of environment-friendly supplies.
By ensuring a pollution-free process of production.
By establishing a system of efficient disposal.

- By adopting practices which make the production and product eco-friendly.
- By adopting eco-friendly packaging.

Activities

Activity: Make a powerpoint presentation on CSR activities of a Firm.

Materials Required:

1. Writing material
2. Computer / laptop for PPT

Procedure:

3. Make a group of 4 students each.
4. Select a garment manufacturing firm
5. Enquire about its CSR activities through published literature or internet. (Volunteer in CSR activities if opportunity available)
6. Prepare a presentation document (preferably a PPT)
7. Present the presentation to the class.

What Have You Learned?

A. Fill in the Blanks:

1. _____ is conducted regularly to ensure that no fraud or scam is caused by the organisation
2. A _____ audit may require the auditor to examine the rules, regulations, orders and instructions for their legality, adequacy, transparency and prudence.
3. Compliance audit, Technical audit and _____ audit are three types of audits.
4. Pre-Audit, _____ audit and Post-audit are three phases of audit.

B. Write short answers for the following:

1. What are the three phases of audit? Explain.
2. What do you mean by audit? Explain its importance.
3. What is the significance of compliance in Garment Industry?
4. Explain types of audit.
5. Explain Corporate Social Responsibility.
6. Explain Core Labour Standards.

Session: 2 Customer Specific Regulations and Requirements

Customer specific regulations and requirements are the requirements developed by the customer with the expectations that the supplier will identify, implement and audit these requirements.

These requirements fall into following categories:

- i. Material specific requirement
- ii. Delivery requirements
- iii. General requirements
- iv. Process requirements (ex: calendaring)

Customers specific requirement cannot be ignored and seek to expand the standard or define how a customer wants a portion of the standard to be met.

Country specific regulations for sector and their importance:

There are several country based regulations and requirements which a manufacturer / supplier needs to comply with. Some of these regulations could be mandatory while the rest could be voluntary / suggestive which the companies are expected to follow. Compliance to all the regulations might give a company some competitive edge over others. There could be certain requirements specific for a market or specific to a product category.

1. MANDATORY REGULATIONS

There are several mandatory requirements that manufacturers and exporters need to comply with. This includes legal requirements concerning product safety, use of chemicals, product quality and labelling. Additionally, many buyers have created their own non-negotiable terms and conditions which all their suppliers are bound to follow. These requirements could be non-legal, but still mandatory. Following are the few textiles and apparel related mandatory regulations / guidelines followed worldwide:

i. REACH

REACH stands for Registration, Evaluation, Authorization and Restriction of Chemicals and applies to all products including textile and apparels to be exported to European Union.

Hundreds of chemicals are used at different stages of textile and apparel manufacturing. Some of these chemicals could be harmful to the user. Hence, it is essential to follow REACH regulations to avoid the possible harm to the user of the product. This restriction is imposed over a wide range of

chemicals used in textile and leather and such restrictions could limit the use of these chemicals completely or partially as measured by weight.

A list of some of the important chemicals banned for textile and apparel sector is as follows:

a. Azo dyes and its aromatic amines–

Currently, around 60%-70% of dyes used for industrial purposes belong to the family of azo dyes due to its economic efficiency and usability. They are widely used in the textile industry to give vibrant colors to almost all materials including cotton, silk, wool, leather and other fibers. Overexposure to azo dyes can cause diseases like bladder cancers, liver cancers, and hematuria.

India has published legislation prohibiting the handling of a total of 112 azo and benzidine based dyes. In 1993, the Government of India prohibited the handling of 42 benzidine-based dyes. The Ministry of Environment and Forests further prohibited the handling of an additional 70 azo dyes in 1997.

According to the Indian import policy, import of textiles and textile articles is permitted subject to the condition that they do not contain any of the hazardous dyes (azo dyes) whose handling, production, carriage or use is prohibited in India under the provisions of the Environment (Protection) Act, 1986.

b. Tris (2,3-dibromopropyl) phosphate, tris (aziridinyl) phosphin oxide, and polybrominated biphenyls (PBB) – Used as waterproofing and stain-repelling chemicals.

c. Perfluoro octane sulfonic acid and its derivatives (PFOS) – Used as biocide and preservatives

d. Dioctyl tin (DOT) compounds, tributyltin (TBT) compounds, and pentachlorophenol (PCP) – Used in metal trims and accessories (zippers, buttons, jewellery)

e. Polycyclic-aromatic hydrocarbons (PAHs), and phthalates – Used in leather products

f. Persistent Organic Pollutants (POPs) - used to make waterproof Textile material or flame-retardant fabric, and for leather finishing.

iii. ORR Chem stands for Chemical Risk Reduction Ordinance and is a regulation from Switzerland regarding use of chemicals. ORR Chem totally bans certain chemicals while allow them only for certain applications when no other substitute is available. The idea is to minimize the risk and possible harm from chemicals by limiting their use.

Similarly, Austria, Denmark, Finland, Norway, Germany and the Netherlands also have specific regulations for the use of some chemicals like Formaldehyde and PCP.

- iv. Stockholm Convention** is a global regulation to protect human health and the environment from chemicals that remain intact in the environment for longer periods, become widely distributed geographically, accumulate in the fatty tissue of humans and animals, and have harmful impacts on human health and the environment.

v. Product Safety Regulations

It is buyer's responsibility to provide design of the product which is legally safe for consumers to use. However if a manufacturer / exporter is not sure about the safety of the product, he must discuss this with the buyer or check with the safety guidelines of the importer country. Before manufacturing a product for export, an exporter may always ask its suppliers for fabric, trims and accessories if they have exported their material before or are familiar with the legal safety requirements of apparel export.

a. Children's clothing regulations

Generally such regulations are formulated for children below 14 years of age. The idea is to avoid fatal incidents, strangulation and choking hazards. A few regulations have been developed by various countries as listed below:

- The European Union has a Specific Standard for the Safety of Children's Wear including bathrobes, pyjamas, nightshirts, etc. It does not apply to baby's nightwear. This standard does not require additional labelling on the product. General product safety directive of European Union restricts the presence of certain heavy material in packaging of children's clothing, including lead, mercury, chromium, and others.
EN 14682 – Cords and drawstrings on children's clothing, **EN 14878 Textiles** – Burning behaviour of children's nightwear – Specification and **ASTM F1816-97** – Standard Safety Specification for Drawstrings.
- Similarly, UK has The Nightwear (Safety) Regulations 1985, for children's clothing. The United Kingdom's **BS 4578 Standard** devises test methods for hardness and air permeability for infants' pillows.
- The Washington Children's Safe Products Act (CSPA) requires manufacturers or importers of children's products to report to the Department of Ecology of Washington, before placing in the market products that contain chemicals that are included on the "List of Chemicals of High Concern to Children".

- Similarly, State of Vermont Act 188 also stipulates that manufacturers or importers of children's products should report to the Health Department when these products contain chemical.
- substances recorded in the "**List of Chemicals of High Concern to Children**".

b. Flammability or Fire Safety Standards

Countries like UK, Ireland, Netherland and Switzerland have specific legal requirements regarding apparel flammability. Flame retarding chemicals are used to avoid fabric flammability but this again is restricted under REACH, Hence a manufacturer / exporter has to check both REACH and Flammability guidelines for textile and apparel products.

There are national standards concerning the flammability of textile and apparel products in several countries. For ex: Standard for protective clothing, standard for protective gloves for firefighters, fire safety standard for bedding, standard for protective clothing with limited flame spread properties etc.

c. Standard for Personal Protective Equipment

CE stands for "European Conformity" and is an administrative marking which indicates conformity with health, safety and environmental protection. While exporting Personal Protective Equipment (PPE) to European Union, exporter is required to comply with the specific safety standards for the design, manufacturing, material use, testing and user instructions concerning PPE. The exporter is required to affix CE marking to indicate that the product is in line with the PPE safety requirements. CE marking is required only if one or more of the 25 CE marking directives cover the products being exported.

d. Biocide related regulations

If biocides are added to textiles to protect it from pests or bacteria, it must comply with the Biocidal Product Regulation (BPR) as well as REACH.

vi. Labelling Requirements

With an aim to inform the consumer about the kind of apparel they are buying, it is required to affix a label to the product. It also educates the consumer about the material content, country of origin / 'Made in', product care, washing instructions, etc.

According to EU Textile and clothing regulation, products have to be labelled or marked before they are made available in the market for sale.

As per a Notification issued by the Ministry of Commerce on November 24, 2000, all pre-packaged products (intended for direct retail sale only) imported into India must carry the following declarations on the label: • name and address of the importer • generic or common name of the commodity packed • net quantity in terms of standard unit of weights and measurement (in metric) / size if garment • month and year of packing in which the commodity is manufactured, packed or imported, and the maximum retail sales price (MRP) • fibre content

Footwear: Similar guidelines are applicable to footwear, which includes sizing and listing which standards are used. India follows the British size system for footwear. India has a voluntary Eco-Labeling scheme known as 'Eco-mark', which provides for easy identification of environment-friendly products. Criteria for the Eco-mark have been set for 16 product categories, including textiles and leather.

Following are some key points of labelling requirements:

a. Full fibre composition must be mentioned on the label of textile products. For example, Silk, wool, Nylon, Polyester, Cotton, Spandex etc. There is no mandatory standard for mentioning the fibre composition in most countries. However it is suggested as best practice to show the percentage of each fibre on the label. As per the mandatory labelling guidelines for textile and apparel products under the **Textile Labelling Act (TLA) of Canada**, it is mandatory to disclose fibre content information expressed in percentages by mass and the dealer identity information on the label.



Fig.: 6.6 – Fibre Content and Country of Origin label

- b. Non-textile parts of animal origin must be clearly mentioned in the label (such as fur or leather)
- c. The label should not contain abbreviations with the exception of mechanized processing codes.



Fig.: 6.7 – Care Labels Symbols

- d. Care instruction label is not mandatory under EU textiles regulation. However, if an exporter wishes to include them, care must be taken to use symbols as acceptable in the importer country.



Fig.: 6.8 – Care Labels

An ideal care instruction label must include information on:

- General care and warnings
- Washing
- Drying
- Ironing
- Dry-cleaning

e. Country of Origin is not a mandatory standard for exporting to most countries, however if an exporter wishes to include, it should be clearly labelled and should not be deceptive. For example, a product imported from China, must not be labelled as ‘Made in India’.



Fig.: 6.9 – Brand, Size and Fibre Content Labels

f. Apparel products must carry a durable, legible, easily visible and accessible label, either on the product or on its packaging. Language of the label is preferably the language of the country of importer. For example, while exporting to Germany, the preferred language should be German. For apparels to be sold in Canadian markets, the care label should be in both English and French.

g. Size mentioning is not obligatory but expected on labels. Australia has defined size standards apparels too, which are:

- **AS 1344-1997:** Size coding scheme for women’s clothing- Underwear, outerwear and foundation garments
- **AS 1954:1976:** Size coding scheme for men’s clothing(including multiple fitting outerwear and industrial wear)
- **AS 1182:1997:** Size coding scheme for infants’ and children’s clothing- Underwear and outerwear

vii. Intellectual Property Rights (IPR)

Intellectual property (IP) is a legal concept which refers to creations of the mind for which exclusive rights are recognized. Under intellectual property law, owners are granted certain exclusive rights to a variety of intangible assets, such as musical, literary, and artistic works; discoveries and inventions; and words, phrases, symbols, and designs. Common types of intellectual property rights include copyright, trademarks, patents, industrial design rights, trade dress, and in some jurisdictions trade secrets. Illegal copy of registered apparel trademarks or design is considered as infringement to IPR. While selling own designs or apparels under a trademark, an exporter must make sure that no Intellectual Property Rights are being violated. Similarly if designs are provided by the buyer, they will also be liable in case it is found to violate any IPR.

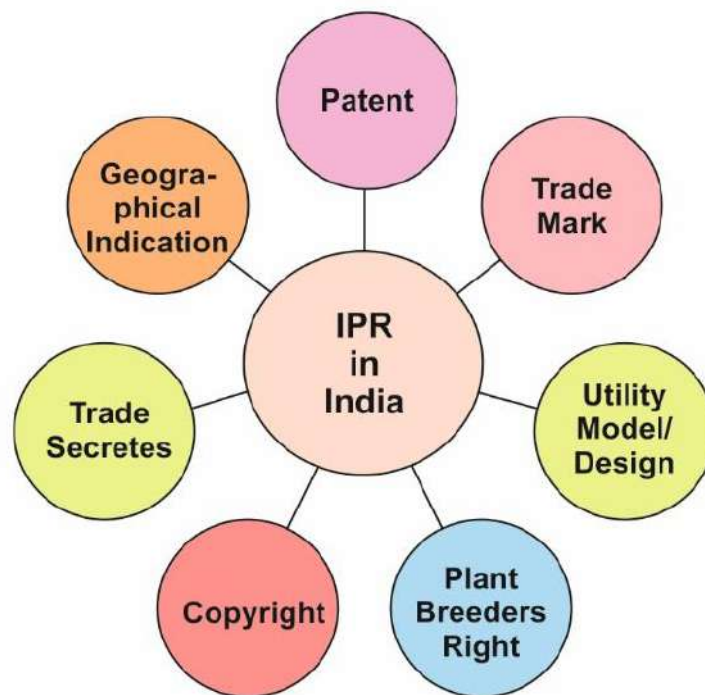


Fig.: 6.10 – IPR in India

2. VOLUNTARY STANDARDS

In addition to mandatory standards (including legal and non-legal), there are many services that buyers implicitly expect or at least highly appreciate if an exporter intends to do business with them.

A voluntary consensus safety standard (also known as a “non-government consensus standard”) is a safety standard for consumer products that establishes consumer product safety practices recommended to be followed by product manufacturers, distributors and sellers.

Buyers set their own standards for products. The exported products must comply to such standards along with the mandatory standard requirements. These standards can be based on the end use of the product or may be based on the product processing etc.. Such standards are implemented by the buyer to meet their business goals of desirable quality product and desirable manufacturing for the product. These standards are different for different buyers.

For example:- The EU has a voluntary standard for Textiles known as **The Burning Behaviour of Children’s Nightwear**, which helps in complying with the GPSD.

CUSTOMER SPECIFIC REQUIREMENTS MANDATED AS A PART OF WORK PROCESS

As we have country specific regulations in this sector for export of textiles and apparel related products, similarly, there could be few customer / company specific requirements / regulations, which exporter / manufacturer needs to fulfil in order to do business with that customer.

Following are few basic types of customer specific requirements

1. Restricted Substances Lists (RSLs)

Apart from REACH guidelines, many fashion brands and retailers have created their own list of restricted substances, which they impress upon their suppliers to follow. Such company specific Restricted Substances Lists may be stricter than REACH. Suppliers intending to work with these firms are required to comply with these customer specific RSL along with other Country specific regulations.

Customer Specific Standards are often based on **Zero Discharge of Hazardous Chemicals (ZDHC)** guidelines on safe chemicals use.

2. Product design and development

Generally buyers have their own design team and provide new designs to suppliers. However, suppliers or manufacturers can also maintain their design team and suggest the buyers about new designs ideas. Buyers will always appreciate new designs, materials or production methods to make them stand out in the market and have a competitive edge over other brands.

3. Garment Care Preferences

Most customers prefer an easy handling fabric which can be hand washed or machine washed and easy to care.

4. Smaller Lead Time

Some apparel brands/buyers work on fast fashion concept and prefer a supplier / manufacturer who can work on deadlines and smaller lead time.

5. Complexities

Factories usually try to get easier work order based on available fabric, simple designs and large lead time. However, brands in order to stand out in the market might ask for complex designs and innovative fabrics. To work with such buyers / brands and to supply those with their specific requirements could be difficult. Also manufacturers / exporters are required to be flexible with workmanship, Minimum Order Quantity (MOQ) and price.

6. Location of Factory in GSP

As per EU's Generalised System of Preferences (GSP) there are around 71 countries worldwide which are preferred over on listed countries to manufacture and export to EU buyers. EU Buyers are also benefited with removal of import duties. Thus, buyers might have specific requirements for manufacturer from a country listed in GSP.

Activities

Activity: Visit a Garment export unit and make a report on Country specific regulations which they follow.

Materials Required:

1. Writing Material
2. Ruler
3. Adhesive

Procedure:

1. Make a visit to any nearby garment export unit.
2. Enquire about the countries where they export their product.
3. Enquire and prepare a report about the country specific regulations being followed for any export order.

What Have You Learned?

A. Fill in the Blanks –

1. _____ stands for Registration, Evaluation, Authorization and Restriction of Chemicals.
2. _____ is an administrative marking which indicates conformity with health, safety and environmental protection.
3. With an aim to inform the consumer about the kind of apparel they are buying, it is required to affix a _____ to the product.
4. ZDHC stands for _____.
5. GSP stands for _____.

B. Write short answers for the following:

1. Explain 'Restricted Substances List'.
2. Give few examples of Children's clothing standards.
3. What are customer specific requirements?
4. Explain any 3 country specific mandatory regulations.

Session: 3 Ethical Compliance and Related Documents

Introduction

Indian Garment industry is getting attention from consumers, social workers, welfare organisations and branded international buyers. Many international buyers are demanding their manufacturers / suppliers to comply with their 'Code of Conduct' and 'Code of Ethics' while placing an order.

Adherence to quality standards and employee satisfaction has become important parameters for measuring the organisation's performance. Manufacturers and organisations comply with regulations and codes, not only out of a need to act generously, but also for survival in a globally competitive environment.

In the light of growing competition among exporting countries and increasing demand for products that meet internationally recognised standards, it is essential for the manufacturers / suppliers to improve their safety and health compliance code and provide proper working environment in their factories.

Several countries have also developed various international compliance standards on health and safety compliance. Exporters should follow these compliance codes to survive in the global market. Moreover, regular practice of compliance with code of conduct would ensure higher price of products, less employee turnover rate, smooth industrial relation as well as global image & reputation.

In a consumer market, brand name and reputation are most critical assets. Companies should adopt Ethical compliance code to protect their goodwill in the market. The Indian garment industry needs to be tough on compliance rather than competing with other developing countries manufacturing cheaper garments.

WHY CODE OF ETHICS IS REQUIRED?

Code of Ethics represents an organisation's self-made constitution / regulation which aim to provide general behavioural guidelines. Such guidelines are generally towards safe working conditions, prohibition of child labour, environment protections, work hours and wage rate control, equality and discrimination issues, labour safety standards, bribery and corruption, unfair practices etc.

Codes of Ethics are generally not as detailed as Code of Conduct. Code of Ethics represents an organisation's culture and values. Large organisations

usually have a dedicated department of Corporate Social Responsibility to take care of ethical practices of the organisation. Also it is a great tool for the organisation or the Brand to portray and improve brand image to the customers.

By following such ethical practices, it is conveyed that the brand is dedicated towards high quality products, comply with legal requirements and undertakes to protect the environment. Such message boost customers' confidence in the brand and products quality. Brands speak loud about their ethics and value on their websites and promotion campaigns to educate the customers and stand out in the market.

Attention to working conditions and labour related issues is also required as most of the buyers outsource their requirements from countries with lower wage rates in order to cut down on costs. But such manufacturer might not be following ethical and fair practices related with labour and environment. Hence, buyers link their code of ethics to work orders for manufacturers and compel them to respect all the labour and environment related guidelines which the buyer company believes in.

These ethics are required for:

- Increasing national competitiveness in terms of social compliance
- Increasing competitiveness of small scale manufacturers
- Reducing burden on manufacturers

In India, the **Apparel Export Promotion Council (AEPC)** is committed towards legal compliance and ethical business practices and encourages members / exporters to comply with all applicable laws and regulations of the country, to meet all the **International Compliance Standards**.

Further, the council has designed a garment factory compliance program 'DISHA' (Driving Industry towards Sustainable Human Capital Advancement) that aims to spread awareness regarding the importance of compliance among Indian garment exporters.

Some of the important compliance codes in Indian garment industry are listed below.



Fig.: 6.11 – Code of Ethics

1. Working Hour and Wage Rate Compliance

- Garment factory must ensure that employees should get at least minimum wages according to the domestic law and as per the time spent by them in the industry.
- Employer should pay equal wages to both men and women employees, for performing the same work or work of a similar nature.
- Worker employed for more than nine hours on any day or for more than 48 hours in any week, should be entitled to wages at premium legal rates for such overtime work.
- Every worker should be given one holiday (for a period of 24 consecutive hours) in a week. Whenever a worker is required to work on a weekly holiday, he is to be allowed a compensatory holiday for each holiday so lost.
- Every worker is to be allowed at least half an hour rest interval after a maximum working of 5 hours at a stretch.
- Overtime work should be voluntary for employees and should be supported by legally required rate of compensation for such overtime period.
- No worker should be employed below the age of 14 as per guidelines of International Labour Organisation.
- There should not be any sort of forced labour whether in the form of prison labour, indentured labour, bonded labour or otherwise.

2. Workplace and Work Environment Compliance

- Organizations should ensure proper ventilation, sufficient light and air to provide the employees with standard working environment.
- Indian garment industries should provide the workers with comfortable sitting chair with back support and proper leg space.
- All employees should be treated with dignity and respect. No employee should be subject to any physical, sexual, psychological or verbal harassment or abuse.
- Right of employees to form association and collective bargaining should be respected and recognized. No employee should be subject to any sort of harassment, intimidation or retaliation for engaging in association or collective bargaining.

3. Non-discrimination compliance

- Organizations should not discriminate employees on the basis of physical characteristics, beliefs and cultural characteristics. All the terms and conditions of employment should be based on an individual's ability to do the job. They should provide equal employment opportunities for all employees and associates irrespective of the

employees' race, colour, religion, age, sex, creed, national origin, marital status, etc.

- Women workers should receive equal remuneration, including benefits, equal treatment, equal evaluation of the quality of their work, and equal opportunity to fill all positions as male workers.
- Women workers who avail maternity leave, should not face dismissal or threat of dismissal or loss of seniority or deduction of wages, and should be allowed to return to their former employment at the same rate of pay and benefits.

4. Health and Safety Compliance in Indian Garment Industry

- Employees should not be exposed to hazards, including glues and solvents, which may endanger their safety, including their reproductive health.
- No employee should work on machines without adequate training, knowledge and supervision.
- Industries should comply with international standard code, such as ISO(Indian Standards Organisation) or importing countries standard code to become competitive in international markets.
- Wiring should be in good condition with no broken junctions or wires sticking out at the end.
- Eye-wear and face shields should be provided in areas with danger of sparks, glare, hazardous liquids and excessive dust.
- Ear plugs or muffs should be given in places with excessive noise such as generator rooms and rooms with embroidery machine.
- Headgear and protective shoes are necessary for workers involved in loading and unloading operations.
- Factories should have effective fire extinguisher with proper usage instructions.

Activities

Activity: Visit a Garment export unit and make a report on Code of Ethics which they follow.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive

Procedure:

1. Make a visit to any nearby garment manufacturing unit.
2. Enquire about the countries where they export their product.
3. Enquire and prepare a report about the Code of Ethics being followed.

What Have You Learned?**A. Fill in the Blanks**

1. Adherence to _____ and employee satisfaction has become important parameters for measuring the organisation's performance.
2. _____ represents an organisation's self-made constitution / regulation which aim to provide general behavioural guidelines.
3. Large organisations usually have a dedicated department of _____ to take care of ethical practices of the organisation.
4. _____ is committed towards legal compliance and ethical business practices.
5. Organizations should not _____ employees on the basis of physical characteristics, beliefs and cultural characteristics.

B. Subjective Questions

1. Explain 'Code of Ethics'.
2. Explain in brief about workplace and work environment compliance in a garment unit.
3. Discuss about wage rates and working hour's compliance for workers in a garment unit.
4. Write short note on compliance code guidelines for Indian Garment Industry.
5. Explain Health and Safety compliance in Indian Garment Industry.

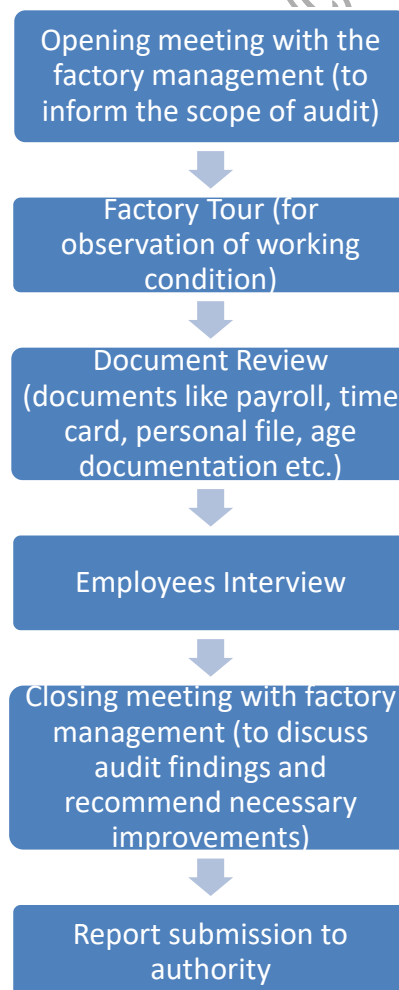
Session: 4 Documentation and Reporting of Compliance Deviation

INTRODUCTION

Social compliance deals with employee's health and safety, their legal rights and working environment from social perspective. To make a factory compliant to such national or International standards, it needs to follow local labour law and international social compliance requirements. Social compliance audit is generally related to child labour, forced labour, health and safety, abuse and discrimination, disciplinary practices, working hours, remuneration, freedom of association, management systems, etc.. Social compliance is a vital part of the apparel industry because it has an impact on a company's reputation and business.

IDENTIFICATION AND REPORTING OF ANY POSSIBLE DEVIATION

Social compliance audits conducted as per the Code of Ethics of different buyers are based on the following steps:



CORE LABOUR STANDARDS

COMPLIANCE CLUSTERS	COMPLIANCE POINTS
1. Child Labour	• Child Labourers • Documentation and Protection of young workers • Hazardous works and other worst forms
2. Discrimination	• Gender • Other grounds • Race and Origin • Religion and Political opinion
3. Forced Labour	• Bounded Labour • Coercion • Forced Labour and overtime • Prison Labour
4. Freedom of Association and collective Bargaining	• Collective bargaining • Freedom to Associate • Interference and discrimination • Strikes • Union Operations
5. Compensation	• Minimum wages • Overtime wages • Method of payment • Wage information, use and deduction • Paid leave • Social security and other benefits
6. Contrasts and Human Resources	• Employment contracts • Contracting procedures • Termination • Dialogue, Discipline and Disputes
7. Occupational safety and health	• OSH Management systems • Chemicals and hazardous substances

	• Workers Protection • Working Environment • Health services and First Aid • Welfare facilities • Workers Accommodation • Emergency preparedness
8. Working Time	• Regular Hours • Overtime • Leave

These are 8 major compliance cluster which are divided into compliance points. These points are required to be checked during audit. The audit checklist may vary from organisation to organisation but a suggestive checklist is shown below:

a. Checklist for Child labour and young workers:

1. Employer having a reliable system to check age of worker before hiring.
2. Employer complying to guidelines regarding fitness of worker
3. Maintenance of a register of workers below 18 years of age
4. Workers below 18 years of age performing work which is hazardous by nature.
5. Workers engaged for more than permissible working hours.
6. Engagement of employer in child labour.

b. Checklist regarding wages and working hours:

1. Workers are paid their wages on time
2. Worker's wages are paid correctly as per norms and minimum standards.
3. Women workers are paid for maternity leaves.
4. Workers are paid correctly for annual leaves
5. Workers are paid correctly for festival holidays.
6. Workers are paid correctly for sick leaves.
7. Workers are paid correctly for casual Leaves.
8. Workers are paid correctly for duration of work stoppages.
9. An accurate pay-roll record is maintained by the employer.

c. Checklist for social security and other benefits:

1. Employer has provided compulsory group insurance for workers?
2. Employer pays correct compensation in case of worker's death.
3. Workers are paid correct compensation for work related accidents and diseases.
4. Employer has established a Provident Fund and deposit employer's share for workers as per norms.
5. Festival bonuses are paid to workers as per norms.
6. Workers are provided with wage slips.
7. Any unauthorized deduction is not made by employer from worker's wages / salary.

d. Checklist for worker working with chemical and hazardous substances:

1. Workers engaged for working with chemical or hazardous substances are effectively trained.
2. Employer has taken action and precaution to prevent exposure to chemicals or hazardous substances.
3. All chemicals or hazardous substances are properly labelled.
4. Employer maintains an inventory of chemicals and hazardous substances at workplace.
5. All chemicals and hazardous substances are properly stored.
6. Availability of adequate washing and cleaning facility in case of exposure to hazardous substances.
7. Employer possesses license for storage and use of chemicals.

e. Checklist for emergency preparedness:

1. Workers are trained for firefighting and rescue.
2. Availability of emergency exit window and doors.
3. Availability of alternative stairs.
4. Availability of firefighting equipment.
5. Availability and functioning of fire detection and alarm system.
6. Emergency exists and escape routes are clearly marked.
7. All flammable materials are safely stored.
8. Possible sources of ignition are appropriately safeguarded.
9. Periodic emergency drills are conducted.

f. Checklist for Health services and first aid:

1. Availability of required health facility and staff.
2. Employer complying with medical check-ups of workers.
3. Workers are trained for first-aid and first-aid team is formed.
4. Availability of readily assessable first-aid boxes.

g. Checklist for welfare activities:

1. Availability of adequate day care facility
2. Availability of adequate lunch room / canteen.
3. Availability of adequate rest rooms
4. Availability of adequate washing facility
5. Availability of clean and safe drinking water
6. Accessible toilets and washrooms.

h. Checklist for working environment:

1. Noise levels are acceptable.
2. Temperature and ventilations are acceptable.
3. Workplace is clean and tidy.
4. Workplace is adequately lit.

PROCEDURE TO FOLLOW IN CASE OF DEVIATION

After the compliance audit, in case of any deviations are recorded, the auditor prepares a **Corrective Action Plan (CAP)**. Such plans are reviewed periodically and worked upon to avoid deviations before next audit.

Following are the aims of CAP:

1. To identify the most important shortcomings
2. To understand the root cause of the shortcomings
3. To assign a responsible person
4. To propose corrective action
5. To reach goals within time

In order to ensure that suggestions of CAP are implemented, follow-up audits are done as soon as a number of improvements are achieved. Third party audits can also help the manufacturer / exporter to get better suggestions and audit reports.

Exit meeting with management

The exit meeting with management takes place at the end of the factory visit. The aims of the exit meeting are:

- To get management on board to implement the process- to improve labour practices.
- To present the main audit findings to management, check whether management agrees with the findings and ask a response from their end with respect to findings thereby unveiling the possible causes of the problems which are identified.
- To propose corrective action plans for improvements, discuss with management whether improvements are feasible and within timeframe.
- To present main audit findings to factory level trade union representatives or elected worker representatives.

Activities

Activity: Visit a garment manufacturing unit and make a report on Corrective Action Plan which they follow in case of compliance deviation.

Materials Required:

1. Writing material
2. Ruler
3. Adhesive

Procedure:

1. Make a visit to any nearby garment export unit.
2. Enquire about the countries where they export their product.
3. Enquire and prepare a report about the Corrective Action Plan followed in case of compliance deviation.

What Have You Learned?

A. Fill in the Blanks

1. _____ compliance deals with employee's health and safety, their legal rights and working environment from social perspective.
2. Social compliance audits are conducted as per the _____ of different buyers.
3. These are ___ major compliance cluster which are divided into compliance points.
4. After the compliance audit, in case of any deviations are recorded, the auditor prepares a _____.

B. Subjective Questions

1. Explain in brief the process of auditing compliance standards in a garment unit.
2. What precautions are to be taken by a Garment unit where chemicals or hazardous substances are used?
3. What are the guidelines regarding employment of child labour and young workers?
4. What procedure to be followed in case of any deviation in compliance with standards?
5. How should a garment unit be prepared for emergency?

ANSWER KEY**Module-1****Session-1****Fill in the blanks**

1. Export marketing
2. Internal
3. Ad valorem
4. Cost, insurance, and freight (CIF) : free on board (FOB)
5. Packaging

Full forms

1. Cost, insurance and freight
2. Free on board
3. American free trade agreement
4. Association of Southeast Asian Nations
5. Intellectual property rights

Session-2**Fill in the blanks**

1. Merchandise export from India scheme (MEIS)
2. **Duty exemption and remission**
3. Duty free
4. Documentary collections
5. L/C

Full forms

1. Merchandise export from India scheme
2. Export credit and guarantee corporation of India
3. Letter of credit

4. Industrial development bank of India

Session-3

Fill in the blanks

1. Export promotion council
2. **World trade organisation (wto)**
3. Canalizing
4. Packing list
5. Promotion , advertising

Session-4

Fill in the blanks

1. Cash-in-advance
2. **International chambers of commerce (icc)**
3. Open account
4. Documents against payment (d/p), documents against acceptance (d/a)
5. Commercial invoice

Session-5

Fill in the blanks

1. Quality
2. Pre-shipment
3. Inspection agency
4. Critical
5. Certificate of inspection

Module-2

Session-1

Fill in the blanks

1. Purchase order
2. Packing list
3. Proforma
4. HAWB

Session-2**True/false**

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

Session-3**Fill in the blanks**

1. Export certificate
2. Prohibited
3. Bank
4. Letter of credit

Session-4**True/false**

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

Session-5**True/false**

1. False
2. True
3. False

4. False

Module-3

Session-1

True/false

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

Match the following

1. iv. Container storage and handling facility
2. iii. Trucks or trains
3. ii. International chamber of commerce
4. v. Sea/ ocean transport
5. i. Multiple-modes of transportation

Session-2

True/false

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

Module-4

Session-1

Fill in the blanks

1. Safety

2. Fire
3. Running
4. Disconnection
5. Smoke, fumes

Session-2

Fill in the blanks

1. Motivates
2. Deep
3. Disinfectants
4. Degreaser
5. Regular

Session-3

True/false

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

Session-4

Fill in the blanks

1. Communication
2. Tone , method
3. Machine operating
4. Sensitive protective
5. Repairs, modifications, maintenance

Module-5

Session-1

Fill in the blanks

1. Health, security
2. Fire extinguishers
3. Emergency
4. Oily
5. Proper sanitary facilities

Session-2**Fill in the blanks**

1. Emergency
2. Physical injury
3. Workstation
4. Chair
5. Breaks

True/false

1. False
2. True
3. False
4. False
5. True
6. True
7. True
8. False

Session-3**Fill in the blanks**

1. Hazard
2. Identification
3. Entanglement
4. First aid
5. Assembly points

Identify and name the safety signs

1. Wet floor
2. Smoking ban sign
3. Hazardous substance
4. Flammable substance

Session-4**Fill in the blanks**

1. Supervisor
2. Emergency response
3. Emergency
4. Exit door

Module-6**Session-1****Fill in the blanks**

1. Audit
2. *Compliance audit*
3. Financial
4. On-site

Session-2**Fill in the blanks**

1. REACH
2. CE
3. Label
4. Zero discharge of hazardous chemicals
5. Generalised system of preferences

Session-3

Fill in the blanks

1. Quality standards
2. Code of ethics
3. Corporate social responsibility
4. Apparel export promotion council (AEPC)
5. Discriminate

Session-4**Fill in the blanks**

1. Social
2. Code of Ethics
3. 8
4. Corrective action plan (CAP)

GLOSSARY

- **MNCs:** These are Multi-National Companies which are involved in a particular business in different nations.
- **Perils:** It is a term used to refer to a hazard or dangerous situation.
- **Dashing of ship:** It refers to violent striking of the ship with obstacles.
- **Geographical indications:** A geographical indication (GI) is a label that is applied to items that have a specific geographical origin and that have attributes or a reputation that are related to that origin.
- **IMF:** The International Monetary Fund, or IMF, is an organization that supports international monetary cooperation and financial stability. It also helps to decrease global poverty by facilitating international trade, promoting employment and long-term economic progress.
- **IBRD:** The International Bank of Reconstruction and Development (IBRD) is a development bank which is administered by the World Bank.
- **Tech-packs:** A tech-pack is a specification sheet which consists all the information required for manufacturing a product.
- **ARE-I form:** is an application for removal of excisable goods for export by Air, Sea, Post or Land.
- **GR form:** is a declaration that exporter gives for each shipment stating that he will realize the full export proceeds.
- **Hydraulic systems:** it is a system that works by employing a pressured fluid to function and accomplish duties.
- **Drilling machine:** These machines in the apparel industry are those machines which are used to cut the drill marks in the garment pieces. These drill marks are used to identify the position of buttons, darts, pockets etc.
- **Debris:** scattered pieces of waste material.