

Materials Management

Introduction

Material management is an approach for planning, organizing, and controlling all those activities principally concerned with the flow of materials into an organization.

The scope of Materials Management varies greatly from company to company and may include material planning and control, production planning, Purchasing, inventory control, in-plant materials movement, and waste management.

Some Definitions of Materials Management

(i) 'Materials Management' is a term used to connote "controlling the kind, amount, location, movement and timing of various commodities used in production by industrial enterprises".

(ii) Materials Management is the planning, directing, controlling and coordinating those activities which are concerned with materials and inventory requirements, from the point of their inception to their introduction into the manufacturing process.

It begins with the determination of materials quality and quantity and ends with its issuance to production to meet customer's demand as per schedule and at the lowest cost.

(iii) Materials Management is a basic function of the business that adds value directly to the product itself

(iv) Materials Management embraces all activities concerned with materials except those directly concerned with designing or manufacturing the product.

(v) Materials Management deals with controlling and regulating the flow of material in relation to changes in variables like demand, prices, availability, quality, delivery schedules etc.

Thus, material management is an important function of an organisation covering various aspects of input process, i.e., it deals with raw materials, procurement of machines and other equipment's necessary for the production process and spare parts for the maintenance of the plant. Thus in a production process materials management can be considered as an preliminary to transformation process.

It involves planning and programming for the procurement of material and capital goods of desired quality and specification at reasonable price and at the required time.

It is also concerned with market exploration for the items to be purchased to have up to date information, stores and stock control, inspection of the material received in the enterprise, transportation and material handling operations related to materials and many other functions. In

the words of Bethel, "Its responsibility end when the correct finished product in proper condition and quantity passes to the consumer."

Scope of Materials Management

1. Purchasing of Materials

- i. **Materials should be of right quality**- Fighting competition, Increase in market share, Increasing awareness, Development of tools for measuring quality, Lasting impression created by quality
- ii. **Purchasing in right quantity**- Supply pos, EOQ most adv & least costly; Max qua permissible by fin res
- iii. **Purchasing at a proper time**- Seasonal products: crop season, Repeatedly pur items: reorder level
- iv. **Purchasing at a right price**- total cost S.P, competitive strength; quality, durability, time, place, service
- v. **Purchase at a right place**- Centralized purchasing policy, Min redistribution cost
- vi. **Purchase from the right source of supply**- Continuity of supply, Main of quality, Timely delivery, Quality of service

Materials management means planning, directing, co-ordinating & controlling of activities related to acquisition, storage, & maintenance of materials needed for the purpose or production with an objective of minimizing the cost & increasing the profitability

2. Storage (Store keeper)

- i. Weight & quality are inspected
- ii. Classified as R.M, semi-fini goods, fini goods, spare parts, electrical goods, engineering goods, chemical items 7
- iii. Stored properly, quality is maintained, proper safeguard against theft; cold storage facility, safety tanks, underseal

iv. Storage should be scientific- Diff groups, coding of items, preparing of index showing code no & place or room no or godown no or cupboard no; maximum use of space available, reduces wastage & cost, protects quality, makes the item easily traceable

v. Bincard

3. Inventory Control

i. For maintaining the continuity of production & sale, minimizing the stockout cost, controlling the investment of

working capital in stock inventory control is essential, for scientific storing

ii. Techniques like EOQ, min & max stock levels, reorder level, ABC analysis, stock register 5

4. Clearing & Forwarding

i.. Railway station, Airport- Undergoing the required procedure & completing necessary procedure

ii. Railway or Steamer- Clearing & forwarding sec observes necessary formalities for dispatch

iii. Import Export- Lengthy & complicated procedure: Expert forwarding agents

5. Materials Handling

After arrival at fact sent for checking the weight, Inspecting the quality, Storerooms, Issued to factory when needed for production, Shifted from one process to another during production process, Case of assembly, Finished goods 7; Cost

Importance of Material Management

Material management is a service function. It is as important as manufacturing, engineering and finance. The supply of proper quality of materials is essential for manufacturing standard products. The avoidance of material wastage helps in controlling cost of production. Material management is essential for every type of concern.

The importance of material management may be summarized as follows:

1. The material cost content of total cost is kept at a reasonable level. Scientific purchasing helps in acquiring materials at reasonable prices. Proper storing of materials also helps in reducing their wastages. These factors help in controlling cost content of products.
2. The cost of indirect materials is kept under check. Sometimes cost of indirect materials also increases total cost of production because there is no proper control over such materials.
3. The equipment is properly utilized because there are no break downs due to late supply of materials.
4. The loss of direct labour is avoided.
5. The wastages of materials at the stage of storage as well as their movement is kept under control.
6. The supply of materials is prompt and late delivery instances are only few.
7. The investments on materials are kept under control as under and over stocking is avoided.
8. Congestion in the stores and at different stages of manufacturing is avoided.

Objectives of Materials Management

The objectives of material management can be classified into two categories viz; primary objectives and secondary objectives.

Primary Objectives:

The following are the primary objectives:

1. Low Prices:

If materials department succeeds in reducing the price of items it buys, it contributes in not only reducing the operating cost but also in enhancing the profits.

2. Lower Inventories:

By keeping inventories low in relation to sales, it ensures that less capital is tied up in inventories. This increases the efficiency with which the capital of the company is utilized resulting in higher return on investment. Storage and carrying costs are also lower.

3. Reduction in Real Cost:

Efficient and economical handling of materials and storage lowers the acquisition and possession cost resulting in the reduction in the real cost.

4. Regular Supply:

Continuity of supply of materials is essential for eliminating the disruption in the production process. In the absence of regular supply of materials, production costs go up.

5. Procurement of Quality Materials:

Materials department is responsible for ensuring quality of materials from outside suppliers. Therefore, quality becomes the single most objective in procurement of materials.

6. Efficient handling of Materials:

The effective material control techniques help the efficient handling of materials resulting in the lowering of production cost.

7. Enhancement of firm's goodwill:

Good relations with the suppliers of materials enhance the company's standing in the society as well as in the business community.

8. Locating and developing future Executives:

Materials manager must devote special effort to locate men at lower position who can take up the executive posts in future. It helps in developing talented personnel who are ready to undertake future responsibilities of the business relating to materials management.

Secondary Objectives:

The following are the important secondary objectives of materials management.

1. Reciprocity:

The purchase of raw materials from the organisations/customer's by the concern and in turn, sale of finished products to the above customers is known as reciprocity. It serves the twin purpose of increasing purchasing as well as sales.

2. New Developments:

The staff of the materials department deals regularly with the suppliers responsible for new developments in material handling. These developments can be successfully applied in material handling and management.

3. Make or Buy Decisions:

The material manager with regular reviews of cost and availability of materials can safely conclude that whether the material is to be purchased or developed in the organisation itself.

4. Standardisation:

Standardisation of materials is greatly helpful in controlling the material management process. With regular stock-taking, the non-standardised items can be rejected and standard components may be brought into product designs to reduce the cost of production. It is further helpful in promoting the standardisation with suppliers.

5. Assistance to Production department:

By supplying the standardised materials or components to the production department, quality products can be assured. It is helpful in imparting the economic knowledge in bringing about the desired improvement in the product.

6. Co-operation with other departments:

Successful management of materials department contributes to the success of every other department in the organisation. At the same time the success of materials department depends on how successful it is in getting the co-operation of the staff of the other departments.

7. Conception of future outlook:

The materials manager must have some conception of future outlook for prices, cost and general business activity. Forecasting can be made about the future trends in materials. The materials manager should be able to foresee the prices and costs of the raw materials and general business conditions through their daily contracts with the suppliers.

From the above it is clear that materials management serves two fold objectives viz., to strive for a reduction in cost of production and distribution and to help the enterprise in attaining its objectives.

These dual objectives of the materials management further aim at maintaining the regular flow of production by purchasing materials of right quality, in a right quantity at a right time from a right source, on right terms and conditions and at lower price.

It is helpful in efficiently controlling the inventories. It is further beneficial in developing good buyer seller relations. Coordination with other departments is established and considerably helps the organisation to grow and advance in technical field.

Functions of Material Management

Material management covers all aspects of material costs, supply and utilization. The functional areas involved in material management usually include purchasing, production control, shipping, receiving and stores.

The following functions are assigned for material management:

1. Production and Material Control:

Production manager prepares schedules of production to be carried in future. The requirements of parts and materials are determined as per production schedules. Production schedules are prepared on the basis of orders received or anticipated demand for goods. It is ensured that every type or part of material is made available so that production is carried on smoothly.

2. Purchasing:

Purchasing department is authorized to make buying arrangements on the basis of requisitions issued by other departments. This department keeps contracts with suppliers and collects quotations etc. at regular intervals. The effort by this department is to purchase proper quality goods at reasonable prices. Purchasing is a managerial activity that goes beyond the simple act of

buying and includes the planning and policy activities covering a wide range of related and complementary activities.

3. Non-Production Stores:

Non-production materials like office supplies, perishable tools and maintenance, repair and operating supplies are maintained as per the needs of the business. These stores may not be required daily but their availability in stores is essential. The non-availability of such stores may lead to stoppage of work.

4. Transportation:

The transporting of materials from suppliers is an important function of materials management. The traffic department is responsible for arranging transportation service. The vehicles may be purchased for the business or these may be chartered from outside. It all depends upon the quantity and frequency of buying materials. The purpose is to arrange cheap and quick transport facilities for incoming materials.

5. Materials Handling:

It is concerned with the movement of materials within a manufacturing establishment and the cost of handling materials is kept under control. It is also seen that there are no wastages or losses of materials during their movement. Special equipment's may be acquired for material handling.

6. Receiving:

The receiving department is responsible for the unloading of materials, counting the units, determining their quality and sending them to stores etc. The purchasing department is also informed about the receipt of various materials.

Advantages of Material Management

1. Reduced operating costs and timely production.
2. Greater job satisfaction on the part of both the workers and the employer.
3. Every inch of the space is properly utilized.
4. The issue of materials is also facilitated.
5. It helps in maintaining effective production planning and control.

Conclusion

Material management is an important management tool which will be very useful in getting the right quality & right quantity of supplies at right time, having good inventory control & adopting sound methods of condemnation & disposal will improve the efficiency of the organization & also make the working atmosphere healthy any type of organization, whether it is Private, Government, Small organization, Big organization and Household.

Even a common man must know the basics of material management so that he can get the best of the available resources and make it a habit to adopt the principles of material management in all our daily activities.

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