Materials and Inventory

Meaning of material

The material includes raw material, components, tools, spare parts and consumable stores. Material which forms a part of a finished product is the first and most important element of a cost. materials constitutes such a significant part of product cost and since this cost is controllable, proper planning, purchasing, handling and accounting are of great importance of manufacturing company in different type of costs to produce a unit of output.

such cost include material cost, material costs and other costs. Among them material cost are important because in many manufacturing companies such cost are greater than all other costs combined.

in other words proper control of material is necessary from the time orders for the purchase of material are placed with suppliers until they have been consumed. Material is one of the most important elements of production.

The term "material" refers to raw materials that are used for production, sub-assemblies and fabricated parts. Material includes components, consumable stores, maintenance material, spare parts and tools. They are used in manufacturing industries in their fundamental form and they constituent a part of physical form of a product. Wool, cotton, glass, sugarcane, rubber etc are some of examples of material.

Types of materials

Manufacture of the product requires raw material input. Raw materials are the main component of the product. There are two types of materials; direct materials and indirect materials.

1. Direct materials

The materials required to produce a product are called direct materials. Direct materials are also known as raw materials or input materials. Direct raw materials constitute the main component or component of the final product. It is determined in terms of cost per unit of product. Wood for the manufacture of furniture and sugar cane for sugar mills. Textiles for the apparel industry are some examples of direct materials.

2. Indirect materials

Substances that cannot be formed as an integral part of a final product are called indirect materials. Therefore, these substances cannot be easily identified with the product. Nails used in the manufacture of furniture and threads used in the manufacture of clothing are some examples of indirect materials.

Inventory is an asset that is intended to be sold in the ordinary course of business. Inventory may not be immediately ready for sale. Inventory items can fall into one of the following three categories:

- Held for sale in the ordinary course of business; or
- That is in the process of being produced for sale; or
- The materials or supplies intended for consumption in the production process.

Meaning of Inventory

This asset classification includes items purchased and held for resale. In the case of services, inventory can be the costs of a service for which related revenue has not yet been recognized.

In accounting, inventory is typically broken down into three categories, which are:

- **Raw materials**. Includes materials intended to be consumed in the production of finished goods.
- **Work-in-process**. Includes items that are in the midst of the production process, and which are not yet in a state ready for sale to customers.
- **Finished goods.** Includes goods ready for sale to customers. May be termed merchandise in a retail environment where items are bought from suppliers in a state ready for sale.

Inventory is typically classified as a short-term asset, since it is usually liquidated within one year.

Types of Inventory Costs

Inventory can be separated into three categories: raw materials, semi-finished goods and finished goods ready for sale. You may have any of the three or all three, depending on the type of business you run. Purchasing, processing, holding and selling inventory all involve operational costs and you have to balance those costs against your final selling price to guarantee healthy profit margins. Understanding the different types of inventory costs can help you to more fully understand your company's income, expenses and cash flow.

1. Inventory Purchase Costs

The most basic type of inventory cost is the purchase price. Some businesses, such as retailers, buy finished goods inventory that is ready for resale as soon as they receive it. Alternatively you might purchase component parts, and assemble them into new products for sale. Still others purchase raw materials directly and either resell the materials or assemble materials into semi-finished or finished goods before sale.

The key to keeping inventory purchase costs low is to develop long-term, mutually beneficial partnerships with reliable suppliers. Suppliers can offer you price/volume discounts or price contracts to keep your costs at a reasonable level.

2. Inventory Processing Costs

Some businesses perform work on inventory they purchase before it is ready for sale. If you're a computer manufacturer, for example; you likely buy component parts such as microchips, displays and input devices, then assemble various components into individual machines. Assembly processes result in labor costs for assembly workers, and you'll pay the utilities expenses for those workspaces.

3. Inventory Distribution Costs

Inventory items have to be shipped a number of times before they turn into sales revenue. The inventory you buy must be shipped from the supplier to your company, which, while usually covered by the supplier, can sometimes be the buyer's responsibility. Larger businesses will generally house new inventory at a warehouse or distribution center before shipping it on to a specific retail store or other outlet.

Sometimes you'll ship inventory directly to end users, especially if you're an online retailer or have a national or international reach. Inventory transport costs might include freight trucking, shipping by rail or air transport, as well as light-vehicle deliveries in local areas.

4. Inventory Holding Costs

Storing inventory either in your warehouse or in a sales outlet incurs additional costs. Holding inventory means labor costs for handling duties, additional utilities and rent/mortgage costs due to the physical spaces required. The just-in-time or JIT inventory purchasing model can reduce inventory holding costs by ordering inventory exactly when it is needed, preventing storage backups and freeing up employees' time to focus on more productive tasks.

5. Losses from Shrinkage

Shrinkage refers to anything that renders inventory unfit for sale or return to a supplier. Inventory that has already been paid for can disappear due to theft from employees or consumers. Perishable inventory items can spoil if not sold on time, making it impossible to recoup the costs. Damage to inventory caused on your premises can also land inventory items in the trash with no financial value.

Inventory items stored for too long can become obsolete and lose most of their value in some industries, such as cell phone sales.

Materials and Inventory Management

It is the cornerstone of effective supply chain management. When the proper inventory management methods and material management system are in place, enterprises can enjoy the benefits of strategic cost management.

People, process, and automation infrastructure all play key roles in proper materials and inventory management. Without all of the three legs, you have an unstable foundation for your business.

1. People

You must ensure that all team members in materials and inventory management are properly trained. They should have access to documentation about their area of responsibility and those processes should be well-written and easy to understand. These people need to be willing to follow rules and communicate proactively.

This is true from buyers all the way down to receivers in your warehouse. From internal transportation coordinators to outside strategic sourcing analysts, building a strong team is critical to the success of materials and inventory management processes.

2. Processes

All processes should be documented to the point if a key person left your organization tomorrow.

Periodically or during any changes to processes, these must be reviewed for adherence to strategic sourcing methodology, be they related to purchasing, in-transit visibility, receiving, warehousing, asset tracking, outbound procedures, or any other supply chain function.

Wherever possible, information flow and materials processing should be automated.

For example, by requiring the use of Advanced Shipping Notice data in receiving as part of the receiving process, and initiating exception handling procedures when there is a miss-match, warehousing accuracy improves, lessening the chances of a critical out-of-stock.

3. Automation Infrastructure

With greater and greater demand for efficiency, integration and automation of the infrastructure surrounding materials and inventory management is critical to strategic cost management in enterprises of any size.

From the sole proprietor to multi-national corporations, the ability to leverage such tools as e procurement systems, mixed vendor strategy leveraging both low cost country sourcing and domestic sourcing, and appropriate integration between accounting tools and those tools used for materials management are non-negotiable.

4. Taking the first step

Making materials and inventory management a priority starts with an honest evaluation of the current state of your business. Some implementations are simple and inexpensive. Other materials management systems require a significant commitment to hardware and software upgrades.