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**MANAGEMENT**

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**QN 1.** Before talking about the objectives of materials management, one need to understand the term materials management. Therefore, materials management concerned with planning, organizing and controlling the flow of materials from their initial purchase through internal operations to the service point through distribution. OR Material management is a scientific technique, concerned with Planning, Organizing &Control of flow of materials, from their initial purchase to destination.

As we all understood materials management, below are its objectives:

Purchasing or buying the required materials at low prices by following the prescribed purchase policies and encouraging healthy competition.

High inventory turnover that meets materials requirement of the organization by keeping low average stocks so that the capital locked up in materials is turned over a large number of items/ times.

Cost reduction by minimizing expenditure on administrative and other allied activities related to purchase of materials and also to keep the materials in stock till they are finally delivered to the users.

Ensure supply materials continuity to the users. This is done by avoiding out of stock situation. The availability of the resource during production by purchasing goods of right quality, in right quantity at right time, from a right source, on right terms and conditions and at a comparatively low cost that ensure uniform flow of materials is an objective of materials management.

It ensue consistent quality product. The presents of materials and equipment as planned during the project duration contribute to reliable quality product that can be acceptable by the customers.

Keep the wage bill of the department low by ensuring proper distribution of work among staff and not employing surplus staff. The efficient movement of materials also increase productivity and reduce time waste.

Maintain good relationship with the suppliers of materials and also develop new suppliers for the products for which reliable suppliers do not exist.

Training and development of personnel employed in the department that keeps good industrial relationship. It also coordinate the efforts of own personnel along with those of the whole enterprise hence improve department efficiency and add workers skills since team work is valued more important than individual.

It keep proper records of all stores transactions and purchases which make managers to take decisions during production. This is very important objective of materials management.

Ensure standardization of materials that maintain ethical standards like the values of product and principles of an organization or company workers. The professionalism and team work spirit is encourage to create good working environment for every staff that leads stand product wanted by customers.

Making arrangement for working capital and using it for production purposes. This objective helps the management to mobilize more fund for running the production process without delay.

Helping the organization to grow and advance in technical skills to ensure consistency in quality products for customers. Due to competition in the market, every manager want to improve in their technical skill to ensure quality product.

**Advantage of Materials Management**

It minimize loss since the resources are put in use at right time for production without any misuse that will bring wastage and breakdown of the production.

Material management helps to protect products against thefts, wastages during production, supply or distribution.

Manager’s takes right decision making since there is proper records during the production cycle. This is to say, from the day the row materials were obtained to the final stage of consumption.

Due to proper management of materials, the farm can minimize capital investment in inventory that leads to continuity and high turnover of the production.

A proper materials management system helps managers to minimize cost of material purchasing. They can determine the number of materials to be ordered to reduce cost without any obstructions in production.

There is an increase of storing capacity and maintenance of reasonable stock duration production this is because work efforts are injected to the production without waste of time or resources available.

Materials management allow the farm to facilitate regular and timely supply to customers due to efficient movement of materials that increase productivity of goods. Customers’ demands are fulfilled in time.

Due to the conflicting nature of objectives it is difficult to achieve all of them at a time. For example, low cost of acquisition and storing would come in conflict with minimizing the storing costs while, the objective of procurement at a low cost will conflict with continuous supply of materials. Thus, it is difficult to attain all the objectives at a time. (Ken 1979).

**QN 2**.The activities of materials and information flow in an organization referring to the various functions of materials management and its information flow among the various levels of management or departments. The materials management coordinate with various departments of manufacturing enterprises or organizations. The activities involves here are Planning, purchasing, production, finance, marketing, distribution, handling, transportation, value analysis and branding & packaging. Once the material is procured and brought by the organization, its value continues to increase other costs of materials required for the sorting, carrying materials in inventory, maintenance and management costs. The costs of all materials must be allocated to the cost of materials before entering into a product or converted to other form and this must be communicated to all level of management.

The function of the planning department is to plan the purchase of required materials according to the production plan. In materials planning, budget allocation will also be critical to the materials research progress, for better control and this information needs to be communicated to the management levels before any purchase is made.

Purchasing department is to purchase materials based on purchase requisitions from user departments and store departments and production plan for the year. Therefore, this information helps the purchasing department to carry out the four basic procurement activities like selection of suppliers, negotiation of items, issuing of the purchase order and receiving of delivery goods from the supplier.

At the time of purchase, the right quantity and quality of the materials must be purchased on time at lowest price and choose effective procurement system. The maximum benefits is drawn when the procurement is based on the “make or buy decision’’ from the management levels after sharing information.

Inventory control department is responsible to carry out inventory activities like handling, carry cost and inform the materials management of how materials are managed. They will decide on the type of sorting system, to solve the safety stock limit fixing up the reorder levels and maximum / minimum inventory levels.

Responsible for receiving, inspection and shipping department receives material suppliers and delivered. In receipt of the quantity and quality must be checked even during production of parts and materials specification blueprints and inspection and the data needs to be sent or kept for future reference.

Value analysis and standardized is one of the activities to provide maximum range and reducing the cost of materials. It also reduces the range of varieties, but also to help find alternatives to lower-cost materials.

Material handling part responsible for the transport of materials in different departments. There are basic activities includes packaging, labeling, and loading the final product.

Tracing in-bound shipments of material in short supply as requested by production control or purchasing, to assist customers in tracking outbound shipments when asked. (Material management an integrated approach by Gopalakrishman 2004)

**QN 3**. Materials management is defined as the function responsible for the coordination of planning, sourcing, purchasing, moving, storing and controlling materials in an optimum manner so as to provide a pre-decided service to the customer at a minimum cost. From the definition it is clear that the scope of materials management is vast and includes the following:

Materials planning and control is one of the key functions that identify the scope of materialmanagementbased on the sales forecast and production plans, materials planning and control, estimating individual requirements of parts, preparing materials budget, forecasting the levels of inventories, scheduling the orders and monitoring the performance in relation to production and sales.

Purchasing of materials**.**This includes selection of sources of supply finalization in terms of purchase, placement of purchase orders, follow-up, maintenance of smooth relations with suppliers, approval of payments to suppliers, evaluating and rating suppliers.

Stores management or management is involving physical control of materials, preservation of stores and minimization of obsolescence and damage through timely disposal and efficient handling, maintenance of stores records and proper location. A store keeper is also responsible for the physical verification of stocks and reconciling them with book figure.

Inventory control or managementrefers to the materials in stock and they also called idle resource of a firm. Inventories represent those items which are either stocked for sale or they are in the process of manufacturing or they are in the form of materials, which are yet to be utilized. The time between receiving purchased parts and transforming them into final products.

Standardizationmeans producing maximum variety of products from the minimum variety of materials, parts, tools and processes. It is the process of establishing standards or units of measure by which extent, quality, quantity, value, performance etc. may be compared and measured which is also a part of the material management scope.

Simplificationis the process of reducing the variety of products manufactured. It is concerned with the reduction of product range, assemblies, parts, materials and design. Specifications refer *to a* brief statement that formulizes the requirements of the customer through goods or services.

Value analysis its concern with the costs added due to inefficient or unnecessary specifications and features. It makes its contribution in the last stage of product cycle. At this stage research and development no longer making positive contributions in terms of improving the efficiency of the functions of the product or adding new functions to it.

Human Engineeringis deals with man-machine system. Ergonomics is the design of human tasks, man-machine system, and effective accomplishment of the job including displays for presenting information to human sensors, controls for human operations and complex man-machine systems.

Inclusion, One can say each of above functions explain the scope of material management since they elaborate more above material management. They all leads the objectives and work of material management as a result, one can understand scope of material management.

(By Albert mathematics university of oxford 2015)

**QN 4**. The various roles of materials management in the context of internal and external interfaces to materials management system can be define below:

Market forecasting is one of the key role-played by materials management is to forecast the future demands of the product. For example if an organization needs to organize awareness training to a targeted group of people, it need to manage the raw materials and well as the finished product like T shirt, banners and promotion posters. The point here would be to ascertain what would be the demand of the group material for the various Programs thus this forecast can be made on the basis of material usage patterns and increase in demand for the last few years in addition expected enrolments for programs that are new, this information can be predicted on the basis of response to new programs of the same area during last few years. Thus, materials management has a great role to play for an organization.

Production is also played a big roles of material management system by seeing that the process of production goes unhindered. For example, in the organization want to print T-shirt, banner and promotion posters for the awareness. They need to make sure that there are available printing T-shirts, banners and promotion posters as required for coverage. If any of the three material is out of stocks the awareness process cannot continue. In addition, please note that the demands have been predicted thus the material requirements can be calculated with this data.

Finance is the means of obtaining raw materials which is much linked to cost reduction in material management. The cost may include the inventory cost and thus, have a major impact on the material budget. For example, one must procure the T-shirt, banner and promotion poster for the organization so that the T-shirt, banner and promotion poster requirement of printing in fulfilled in time however, this should not cause any unnecessary hold up of the finance. For example, if awareness is to be done in the month of October to November then procurement of T-shirt, banner and promotion posters may be done early enough so that material can be printed and transported or shipped.

Inventory Control is one of the key strategic roles of material management that minimize the inventory of an organization. This should be synchronized with the material procurement and supply so that the production process is not hampered. For example, as stated above the material should be procured early enough such that the event for awareness can proceed smoothly. Inspection or quality control: This is a very interesting interface as the quality of material for different types of an organization is impacted during materials management cycles, though materials management is not directly responsible for quality, yet it can cause indirect effects on the quality of products.

Purchasing and procurement activities sometimes it determines the details of past performance of vendors, quality details which may help in proper selection of vendors. If so needed the orders can even be distributed over time.

The various roles can be also define in terms of the functions that are needed for the coordination of planning, sourcing, moving, storing and controlling materials in an optimum manner so as to provide a pre-decided service to the customer at a minimum cost.

**QN 5**. The role of materials management in performing various functions in an organization are:-

Decision making when buying material result from materials management which helps managers to take decisions on supplies that were not adequately obtained successfully in the past and quality of good supplied not standard.

It ensure the availability of products desired by customers at right place at the time right quantity and right quality at the quality right cost of manufacturing product.

Materials planning and budgeting is the major control activity that an organization needs to put in place. It is feasible due to materials management.

With material management, an organization can be advice the soles pricing due to the help of proper record keeping can be used for creating price date for various destinations.

Selection of good information sources which includes suppliers, prices trends and corporate environment. The material management data may help in and it is use for strategic planning purpose hence enable the organization to move in good direction.

Market forecasting help in determine the price and demand of the product or material needed by the customers. A good price forecasting system based on material management and market research information which can lead an organization into win- win situation.

Production of product is efficient due to materials management that helps to arrange everything or material available for production process to run smoothly without hindering as a result.

Finance is the way where all activities for obtain materials and its management is linked to cost reduction which includes inventory cost thus it have major impact on the material budget.

Inventory control play a big role in materials management by minimizing the inventories like received materials, storage reduction of obsolescence, highlighting of unused stocks, ensuring good housekeeping, verification of stock, timely delivery of good, presentation of material and dealing with scrap materials. The organization can minimize cost of materials procured and supplied. Materials should match and be available for production without shortage to avoid production process being hampered.

The inspection or quality control of materials or products quality that deteriorates its bad and it need to be kept in store to avoid any deterioration of quality and this done by materials management.

Material handling, traffic and physical distribution logistics involves prepare care of the materials. The materials should be handle and distributed easily during the manufacturing process and distribution process to the market or customers to avoid any damage.

The roles of materials management in performing various function in an organization as discussed above. They play a great roles for the organization to achieve its goals in the given period of the time.

**QN. 6** The scope of a product can be discuss by knowing what a product is and what does it to do human beings. By and large all human beings irrespective of their economic status, social and cultural influences, and literacy levels would buy and use/consume various products during their lifetime thus deriving want satisfaction in relation to their inherent and latent needs existing at a given point of time.

We purchase and use different kinds of products available in the market both tangible and intangible and satisfy ourselves by adoption. Having-agreed that product are indispensable to mankind. Let’s now look into what the term ‘product’ means to the manufacturer. In simple terms products are offered to earn revenue which is the bread and butter for the firm to survive and sustain. These products offered to the market by the manufacturer may or may not be in response to human needs/wants.

The meaning of the product is constantly and continuously expending. A product means different things to different people for example purchase of fuel could be a basic need for power source for South Sudan while it will be a luxury or an expression of life style for Uganda. Thus a product is any tangible, intangible offering that might satisfy the needs and aspirations of a consumer. Every marketer, at the stage of conception and while visualizing a product offering needs-to think of it levels

First aspect is the core benefit associated with core product which the consumer derives by adoption which also answers the question of why the buyer should buy it. This way every product tries to satisfy some core benefit or value.

Similarly, a consumer buys a radio to listen to news and music not as a chair to sit on but for entertainment. The core benefit or value in buying a shoe is to protect your feet form damage or get diseases.

At the second level the marketer generally tries to identify a range of unique and tangible aspects in the form of specialized functions, product design, specifications, size and weight. Continuing the earlier example of radio the marketer may offer with removable speakers, portability, remote controlled with brand radio etc.

**PRODUCT CLASSIFICATION**

Based on tangible durability and intangible into durable, nondurable and services respectively for example soap, milk, newspaper, washing machine, plumbing service and so on. Based on ultimate user and their buying behavior and attitudes, we come across:

X consumer products purchased for use by households and ultimate users these product are bought for personal consumption.

X industrial products are purchased either by an individual or a group on behalf of an organization for the production of other product.

Thus industrial products are characterized as those which go into manufacture of other products. All engineering goods, machine tools, auto components, manufacturers fall under this category.

Having acquainted with the types of products, their nature, and utility and consumption patterns. Let us now confine our discussion to consumer products as these are consumed or used by the ultimate consumer or the buyer.

**CONSUMER PRODUCTS.**

Traditionally all consumer products based on their nature, durability, utility and involvement of the consumer are further segmented into, convenience product, shopping product and specially product

Convenience product: Are those category of products bought regularly with ease and without any time consumption. Salt, soap, beans, maize floor as examples.

Shopping products: Are those category purchased irregularly only after considering factors like price quality, style performance etc. The prices of these products are generally high and consumer involvement is equally high. Computers, books and printers fall under this category.

Specially products: These products are purchased irregularly may be once in life time. Majority of these products have no substitutes and they are characterized by high buyer’s involvement. Examples are premium Moto bike, TV and safe fall under this category. The brand loyalty is high and consumers are willing to pay a high price for exclusive products as an expression of their attitude, life style and status symbol.

The above examples of the products are consumed by many consumers in different ways as a result is yield different stratification at various levels depend from individual incomes in the country.

**QN 7.** The product mix is also called product portfolio. It is the set of all product lines and items that a company offers for sale. The example can be Colgate consists of three product lines: oral care, personal care and pet nutrition. Each of these product lines in turn consists of several sub-lines. A Product mix can also be define as full range of products offered by a firm

A product line is a group of products that are closely related because they function in a similar manner and they are sold to the same customer groups that are marketed through the same types of outlet or fall within given price ranges. For Example, HUL in India is having different product line like laundry and personal care according to Philip Kotler and Ronald .Turner.

Therefore, product mix and product line decision are the combination of the two where managers base their actions in managing the company or an organization in for right or wrong direction hence we need to understand various types of product mix and line decisions in regard to be strategic tools in increasing market share and keeping competition at cove.

The product mix is one of the most important tool for the company success in business. It is the center of its offerings. The right product mix decisions should to be taken in line with customer needs. Since customer needs may change rapidly, product mix decisions need to be taken more than once at the beginning because its part of an ongoing process thus, maximum value for customers can be created.

Product line breadth refers to how many or (how broad) is the range of products offered by the firm. For example a manufacturer of kids clothing, could produce shirts, pants, and skirts only having quite a limited breadth of clothing products

Product depth refers to the number of products they offer which are variations of the product. For example, a manufacturer of kid’s clothing may design a shirt for sale. This shirt can be produced in different colors and sizes. The number of variations of the same shirt is considered to be the product depth

Product line consistency refers to how similar particularly in relation to the overall positioning the set of products under the product line are. Continuing with the kids clothing manufacturing example, a manufacturer who mainly produces cute looking shirts for girls would be considered to have a high level of product consistency.

The product line decisions is the product line length. This means nothing else than the number of items in a product line. Certainly, the product line is too short if the company could increase profits by adding items to it. However, it is too long if profits could be augmented by dropping items. In order to find that out, each item in the product line should be assessed on a regular basis in terms of sales and profits. Then, the company can understand how each item contributes to the product line’s overall performance and make the right product line decisions.

A company can expand its product line in two ways: Line Filling and Line Stretching. Both of these product line decisions involve adding items to the line. Line filling means adding more items within the present range of the line. Reasons for doing so include the goals to reach extra profits, to satisfy dealers, to use excess capacity etc. However, the company must not exaggerate: new items should be noticeably different from existing ones. Otherwise, customer confusion might be the consequence.

Line stretching means expansion of product line beyond the current range. We can differentiate between downward, upward, and 2-way stretching. A company located at the upper end of the market may choose to stretch the product line downward. Thus, it may attract low-end customers and reach new targets. Upward stretching is appropriate if the company wants to add prestige to the current product line. Also, better growth rates and higher margins may be the attractive factor for upward stretching.

There are advantages and disadvantages for product max and line decision to be viewed as strategic tools to increase market share and keep competition at bay and they are briefly mentioned below:

**Advantages**

Product mix and line decision helps firms to reach for extra profits that will the firm expend.

The dealers get satisfied since right decisions are taken to meet dealers and customers needs at full capacity.

The company can be a leading full-line and try to plug holes that keep out competitors.

Opportunity of strong sales growth is high when the company use right product line decision.

It can be used as a counter attack on competitors whenever strategically used.

Firms of large product mix tend to compete in most areas of the mark place and compete against a much broader range of competitors as a result they earn profit.

**Disadvantages**

When opportunity in the current middle and upper is less. In stretching downwards, the company faces some risks. The low-end item might provoke competitors to counteract by moving into the higher end.

An upward stretch decision can be risky because of higher-end competitors not only are well rooted may strike back by entering the lower end of the market.

Over time, product mix and line decision makes managers to add new products either to use up excess manufacturing capacity or sales force and distributors by calling for a more complete product line to satisfy their customers and make profit when all product lines are applied rightly base on the points above.

**References**

1. Hrebiniak, Lawrence, and William Joice. “Implementing Strategy, MacMillan Publishing Company, 1984
2. Neilson, Gary, and Karla Martin. “The Secrets of Successful Strategy Execution.”  Harvard Business Review, June 2008.
3. Arnold, J.R. (2001), Introduction to materials management, 6th edition prentice- Hall, Englewood Cliffs, New Jersey.
4. Albert Discuza, B com Mathematics University of Oxford 2015