**African Institute for Project Management Studies**

**(AIPMS)**

Course: Diploma in Logistic and Procurement Management

Assignment.

Module: Two

(Procurement and Supply Chain Management)

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1. **What are the objectives of Materials management? What are its advantages?**

According to your article library article shared by smriti chand (2018), Material management is a scientific technique, concerned with Planning, Organizing &Control of flow of materials, from their initial purchase to destination. The objectives of material management are primary and secondary as explained below.

Primary objectives of material management include;

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

The following are the secondary objectives of materials management.

* Reciprocity: The purchase of raw materials from the organizations/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.
* 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.
* 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 organization itself.
* Standardization: Standardization of materials is greatly helpful in controlling the material management process. With regular stocktaking, the non-standardized 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 standardization with suppliers.
* Assistance to Production department: By supplying the standardized 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.
* Co-operation with other departments: Successful management of materials department contributes to the success of every other department in the organization. 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.
* Conception of outlook: The materials manager must have some conception of 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.
* Conclusively 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 organization to grow and advance in technical field.

According to your article library article shared by smriti chand (2018), the advantages of material management include some of the following;

* 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.
* 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. With material management this is kept under check from time to time
* The equipment is properly utilized because there are no breakdowns due to late supply of materials. This ensures optimum use, effectiveness and efficiency of the equipment deployed for material management.
* The loss of direct labor is avoided. Obviously, loss direct labor will be avoided. The buyer adds in the material and direct labor cost to arrive against the risks associated with the loss of control over items, expenditure, and acknowledging the loss of items and direct labor.
* The wastages of materials at the stage of storage as well as their movement is kept under control. This is because material are checked from time to time
* The supply of materials is prompt and late delivery instances are only few.
* The investments on materials are kept under control as under and over stocking is avoided.
* Congestion in the stores and at different stages of manufacturing is avoided. Maintaining ethical standards.

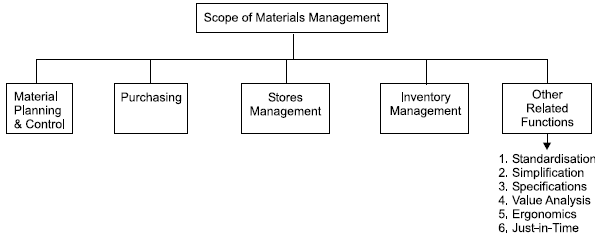
1. **What are the activities of materials and information flow in an organization**

According to lumenlearning.com articles, Information flow is any tracking of referential information by speakers. Information flow affects grammatical structures such as word order. Vertically - flow up and down among managers Example- production supervisors constantly communicate with .with production line workers and their own managers. Horizontally - flow sideways among department: Example -Regional (sales manager from the marketing department set their sales goals by coordinating with production managers in the production department. The activities of material and information flow in an organization include the following;

* Material planning and control: Based on the sales forecast and production plan, the material planning and control done , this involves estimating the individual requirement, of part, preparing material budget, forecasting the level of inventories,shedual the order and monitoring the performer in relation to production and sales.
* Purchasing: This includes selection of sources of supply finalization in terms of purchase, placement of purchase orders follow of maintenance of smooth relation with supplies, approval of payments to supplies evaluating and rating supplies.
* Store management or management: This involves physical control of material, preservation of stores, minimization of Obsolescence and damage through timely disposal and efficient handling, maintenance of store record proper location and stocking. A store is also responsible for the physical verification of stocks and reconciling them with book figures. A store plays a vital role in the operations of a company.
* Inventory control or management: Inventory generally refers to the material in stock. It is also called idle resource of an enterprise. Inventories represent those items, which or either stocked for sale or they are in the process of manufacturing they are in the form of material, which are in the yet to be utilized. The interval between receiving the purchased parts and transforming the into final product varies from industries to industries depending upon

1. **What is the scope of materials management?**

According to wisdomjobs.com article shared (2018), the scope of material management is shown and described below;



* Materials planning and control: Based on the sales forecast and production plans, the materials planning and control is done. This involves estimating the 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: 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: This involves physical control of materials, preservation of stores, minimization of obsolescence and damage through timely disposal and efficient handling, maintenance of stores records, proper location and stocking. A store is also responsible for the physical verification of stocks and reconciling them with book figures. A store plays a vital role in the operations of a company.
* Inventory control or management: Inventory generally refers to the materials in stock. It is also called the idle resource of an enterprise. 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 interval between receiving the purchased parts and transforming them into final products varies from industries to industries depending upon the cycle time of manufacture. It is, therefore, necessary to hold inventories of various kinds to act as a buffer between supply and demand for efficient operation of the system. Thus, an effective control on inventory is necessary for smooth and efficient running of the production cycle with least interruptions.

Other related activities

* Standardization: Standardization means 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.
* Simplification: The concept of simplification is closely related to standardization. Simplification is the process of reducing the variety of products manufactured. Simplification is concerned with the reduction of product range, assemblies, parts, materials and design.
* Specifications: It refers to a precise statement that formulizes the requirements of the customer. It may relate to a product, process or a service. Example: Specifications of an axle block are Inside Dia. = 2 ± 0.1 cm, Outside Dia. = 4 ± 0.2 cm and Length = 10 ± 0.5 cm.
* Value analysis: Value analysis is concerned with the costs added due to inefficient or unnecessary specifications and features. It makes its contribution in the last stage of product cycle, namely, the maturity stage. At this stage, research and development no longer make positive contributions in terms of improving the efficiency of the functions of the product or adding new functions to it.
* Ergonomics (Human Engineering): The human factors or human engineering is concerned 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.” Each of the above functions is dealt in detail.

1. **Define the various roles of materials management in the context of internal and external interfaces to materials management system.**

According to your article library article shared by smriti chand (2018), material management refers to the flow of materials from the environment to the organization and within the organization until it is ready to be dispatched back to the environment. It is concerned with what types of materials to get how much to get, when and where to get, at what price etc. materials management, therefore, is a process of planning, organizing, directing and controlling the flow of materials including the acquisition and utilization of materials in an organization.

The various roles of material Management in the context of internal and external interfaces to material management system include the following:

* 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 based on 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.
* 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.
* 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.
* 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.
* 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.
* 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.

1. **Describe the role of material management in performing various functions in an organization?**

According to your article library article shared by venkatesh (2018), Materials management is an important organized activity of any business system, which is essential for any manufacturing sector. The following are the roles of material management in performing various functions in an organization:

* To procure raw material at low cost: In a manufacturing firm raw material play an important role in the process of production. They constitute about 50% of the total cost of production. Therefore, a slight reduction in the cost would certainly reduce the price, which would in turn increase the profits of the firm.
* To maintain consistent quality: The materials manager should look for quality, even though the raw material is available at a lower cost. As the procurement of raw materials is done only for production, finally a product is manufactured for selling; a customer would look for a quality product apart from price. Therefore, care should be taken to procure the material of precise specifications, which would reduce the cost of inspection, degree of defectiveness and increase the inventory turnover, profitability and image of the company.
* To ensure continuous supply of raw material: The materials manager should ensure smooth flow of supply of raw materials from suppliers or else, it would affect the process of production which would substantially increase the operating costs and also increases the unit production cost.
* To minimize the carrying costs and ordering costs: The material function involves the incidental costs such as costs of ordering material, freight changes, storage costs etc. Reducing any of the above costs, would substantially increase savings, which in turn increases the profits. Techniques such as Economic Order Quantity are used in order to minimize the carrying and ordering costs.
* To maintain a good relationship with supplier: A good relationship with the supplier shows the efficiency of the purchase department. Maintaining a good rapport with suppliers would not only have a good image in the industry, but also leads to certain economic advantages like reasonable price, preference in time shortages, intimation about forthcoming shortages etc., which will have an edge over the competitors.
* Efficient record-keeping and prompt reporting: Materials management involves huge paper work. Paper processing work should be standardized through designing forms for recurring operations, submission of copies to the needy departments. It should ensure efficient record maintenance and reproduction of records whenever necessary.
* To develop new sources and new materials: Purchase research helps in exploring new sources of supply. This may result in the supply of better quality of materials at favorable terms. Procurement of cheaper substitutes than the presently used material (without affecting the quality) if any, should be availed. Thus, it would reduce the cost.
* Training and development of personnel: Materials department is an indispensable part of manufacturing sector. Efforts should be made to develop the personnel by training them if necessary; such training programs will not help to improve the morale of the employees but also, contribute to the qualitative.
* 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.

1. **Discuss the scope of a product. Elucidate the term taking two products of your choice and comment on the satisfaction you derived by adoption.**

According to smallbusiness.chron.com article shared by Linda Ray (2019), Product scope refers to the number of different items a company offers for sale. Business goals usually determine the scope of products a business carry. A business may run a successful business based on a single product strategy or offer a much deeper line of products to serve a wider range of customers. Business product scope determines the future marketing strategies, profit goals and territory saturation. The scope of a product is discussed below,

* Variations: With a single product scope, you build your business around one primary product. You become a specialist and often can build a niche market for your product, especially if you can develop territories over which you have complete control. Management is simple and inventory is easily monitored. A multiple product scope can include selling two, three, or hundreds of products. Your structure is defined by the quantity of your offerings. A strategy that allows you to develop products as needed by consumers provides you with a competitive edge and customer loyalty based on your ability to fulfill consumer needs.
* Considerations: When determining your product scope, you need to consider what the market will bear, what your competitors are offering, consumer demands and profitability. You will develop your marketing strategies, change and growth projections and hiring practices based on your product scope. The kind of product scope you develop determines how you allocate resources, when and if you bring on new products and who your primary vendors will be. Developing your company's organizational structure also is determined by the scope of your product line.
* Strategies: The extent of your product scope determines the best lines of marketing for your organization. You need to evaluate the parameters of your geographic coverage and how heavy your competition is, consumer demands that drive innovation and branding. A single product scope usually leaves little room for branding differentiation, and a system of products strategy requires personal branding for your processes rather than your actual products. Strategies to promote a multiple product scope require a more balanced approach and usually change with the seasons or more closely follow current trends.
* Cycles: The extent of your product scope should remain flexible to take advantage of market changes and move into new offerings when consumer demand varies. For example, if your primary product is patented treatment for wood flooring, you may have to change or upgrade your product line if homeowners and builders switch to carpeting in your area, creating a new trend. If your multiple product scope strategy includes bringing in four new products a year and phasing out four other products, you may have to adjust those numbers if your competitors are turning over new merchandise at a much greater rate.

No matter which kind of product scope you build your business model on, you should create a strategy that includes cycles inherent in your industry and flexible strategies to effectively take advantage of market changes.

According to marketing91.com article on products (2019) a product is a good, service, or idea consisting of a bundle of tangible and intangible attributes that satisfies consumers and is received in exchange for money or some other unit of value.

* Convenience products. Those products your customers buy often and without much thought or planning are classified as convenience goods. Soap, condiments and toothpaste are common examples of convenience goods. Consumers typically make a choice once on their brand preference for these products and repeat that choice over many purchases. Making your convenience goods available for impulse or emergency purchases can be particularly effective. You will see this marketing tactic in the placement of candy near the cash register of your grocery store for impulse buys. Another version is to place umbrellas, boots or snow shovels near a store exit when sudden weather changes call for them.
* Shopping Goods. Buying decisions are detailed considerations of price, quality and value for products classified as shopping goods. Think about the amount of time you put into picking out a clothing purchase, a car or appliances. Successful marketing of your shopping goods can come from positioning as a better buy than your competitors -- for example, presenting better value with higher quality for the price or vice versa. Products in the shopping goods classification tend to rely on heavy advertising and even trained salespeople to influence consumer choices.
* Specialty Products. Goods in the specialty products classification tend to promote very strong brand identities, often resulting in strong brand loyalty among consumers. Examples include stereos, computers, cameras and the most high-end brands of cars and clothing. While used cars are classified as shopping goods, a brand-new Mercedes is classified as a specialty good. Buyers for your specialty goods generally spend more time seeking the product they want than on comparing brands or products to make a value decision. Your marketing of specialty goods can be successful by promoting what you have on hand and where your costumers can find it.
* Unsought Goods. The products classified as unsought goods are those that your consumers do not put much thought into and generally do not have compelling impulse to buy. Examples include batteries or life insurance. Your consumers essentially buy unsought goods when they have to, almost as an inconvenience rather than the newest, latest, greatest product they cannot wait to purchase. Marketing your unsought goods will likely be most effective with lots of advertising and salespeople promoting the idea of unresolved need for your unsought products

1. **Product mix and line decisions are viewed as strategic tools to increase market share and keep competition at bay. Discuss.**

According to smallbusiness.chron.com article shared by Rick Suttle (Feb 2019), Product mix, also known as product assortment, refers to the total number of product lines a company offers to its customers. For example, your company may sell multiple lines of products. The product lines may be similar, such as dishwashing liquid and bar soap, which are both used for cleaning and use similar technologies. On the other hand, Product lines are groups of similar products offered by a company. A product line can have many or few products within

* Provides Diversification Opportunities: The concept of creating a product mix is important to companies that do not want to rely on one product only. Companies diversify for several reasons and in several ways. Some add variations of their products to maximize sales. For example, a car wash might offer a quick drive-through wash for people looking to spend only a few dollars, a hand wash and wax for people wanting more cleaning and protection, and interior detailing service for those who want a total inside-and-out cleaning. Diversifying includes expanding a product mix beyond modifications or complementary products and services. A graphic designer might specialize in designing print publications, website pages and product packaging. A landscaping company might offer house painting and snow-removal services.
* Manages Economies of Scale: Adding certain products or services might be too costly to justify their addition. For example, a food truck that sells only six different sandwiches can buy food items in bulk for those six sandwiches. Offering 15 or more sandwiches results in smaller purchases of each food item, raising its food costs. Adding bird supplies to the product mix of a local pet store that specializes in dogs and cats might require inventory volumes, extra shelf space, promotions and adding a knowledgeable staff person. The demand for bird supplies might not be great enough to cover these costs and turn a profit that exceeds what you would have made selling fewer items.
* Allows for Upselling and Loss Leaders: When customers are in your store ready to spend money, you can often upsell them impulse items, increasing your sales and revenues with little extra effort. Women who come into a dress shop might be likely to buy accessories such as scarves and belts while they are in a store, rather than going to another store or shopping online for them. If a landscaper’s core business is lawn mowing, he might ask the homeowner if she wants hedge trimming or shrub treatments while he’s there. Selling items at or below your cost to get customers through your door can increase their purchases of other items and prevent them from needing to visit your competition.
* Customer Needs: Carrying the proper assortment of products provides you the best opportunity of meeting your customers' needs. The customer comes to rely on you as her primary resource, which means she may be less likely to shop with your competitors. By carefully monitoring your product mix and seeking feedback from your customers, you'll be able to make adjustments as the needs of your customers change over time.
* Business Image: Your product mix is important in determining the image of your business and brand, as it helps you to maintain consistency in the eyes of your target market. For instance, if you are a discount retailer, your target market likely consists of economy-minded shoppers looking for low prices. If you suddenly introduce a product line of high-end merchandise, you run the risk of confusing your customers, as they may wonder if you are planning to make widespread changes to your product assortment.
* Providing Focus: Making use of a product-mix concept helps you stay focused on your core business. As your business grows, you may be tempted to add more product lines in an effort to reach more customers. By doing so, you could be in danger of adding products that appeal only to a fraction of your customer base while alienating your core customers. As a rule, your core customers are the ones who provide about 80 percent of your business, so keep these customers in mind when contemplating changes to your product mix.
* Significance: Product mix is an important consideration for businesses that have large product or service lines. The proper product mix can increase sales by offering a product or service that will meet the demands of almost any consumer. A firm's product mix is particularly important in a competitive industry where there are multiple competitors competing for different customer segments, such as the hotel industry where different hotels are aimed at budget travelers, business travelers and vacationers.
* Function: The function of a product mix is to provide or advertise one type of product to as many consumers as possible. A good product mix will have a variety of products that will fit each person's needs. Using toothpaste as an example, you might have a basic, budget product, an expensive teeth-whitening version and an organic, environmentally friendly product.
* Size: In general, the larger a product mix is, the better it will function. There are some exceptions, however. If a product mix includes many products that are unpopular or redundant, it will actually harm sales. The goal should be to have as many products in your product mix as the market demands.
* Effects: The effect of a good product mix is increased sales because you are able to capture consumers from across the market and avoid a consumer switching to a competitor. If you operate several chains of restaurants under one umbrella organization, for example, you can provide different dining experiences to the same customer who is looking for different things at different times--a romantic dinner, a family friendly dining experience or a place for a business dinner.

In the other hand the disadvantages of product mix and decision line include some of the following explained below;

* It makes greater demand on firm's resources in the form of increased investment in production facilities and inventory.
* Marketing Problems. The firm should weigh the pros and cons of a wider versus narrow product mix. The ultimate decision would rest on such considerations as the available resources, existing and future market opportunities and strategies of competitors. Phillips kotler has suggested the following indicators of firm's sub optional product mix;

a) Disproportionately high percentage of total profits from a few products;

b) Insufficient product breadth to exploit sales force’

c) Excessive productive capacity on a chronic or seasonal basis;

d) Steadily declining sales or profits.

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