Procurement and supply Chain Management

Purchasing

Elijah Thon Buol

Africa institute of Project Management Studies

Qn 1 What *are the objectives of materials management?*

Materials Management has several core objectives and many secondary objectives.

The core objectives of material management are:

Proper, cost effective material procurement.

Proper storage of materials so as to minimize wastages and material holdups.

Making available the material TIMELY.

A good material management system will keep up to data records of all the information generated in it, preferably using a computer-based system. In addition to these primary objectives a materials management system indirectly fulfills many secondary objectives also.

These secondary objectives are normally related to the functions of a material management system. Some of these secondary objectives are:

Identifying new or better sources of supply

Development and sustenance of relationships with the vendors

Creating a standardized quality of the products

Performing the value analysis of inventory. This can be related to the cost of materials.

Creating a smooth flow of materials and information among the various sections of materials management system.

The material management system works under the broad basic objectives of an organization that is “maximum profit with sustained growth and research, satisfied customers and staff of the organization”. The material management supports this objective by providing support through:

Continuity of supply by maintaining a uniform flow of materials,

Reducing the costs of materials purchased and handling by using scientific techniques and electronic tools. The use of scientific tools and techniques for materials and information management,

Minimizing holdups of working capital and performing effective inventory control,

Releasing working capital by ensuring effective control over inventories,

Providing high quality at the lowest price, and

Development of better relationships with customers and suppliers.

***What are its advantages?***

Material management has created a niche in many organizations, which have implemented the integrated materials management. These organizations usually enjoy the following advantages:

Better accountability on part of materials as well as other departments as no one can shift blame to others.

As materials management is handled by single authority, it can result in better coordination, as it becomes the central point for any material related problems.

Materials management department makes sure that better quality material is supplied timely to the requesting departments. This can result in better performance of the organization.

A materials management system is typically controlled through an information system, thus, can help in taking decisions related to material in the organization.

One indirect advantage of material management is that good quality material develops the ethical and moral standard in an organization. However, please note there is no study on this issue.

*Qn2 What the activities of materials and information flow in an organization?*

a simple customer demand can trigger a series of flow of material along with lot of information flow. Please notice that material management will be required across the entire life cycle of the material flow. Please also note that during the material flow a lot of information is generated, which can be used strategically for various purposes as;

Production planning and control

Store

Inventory control

Vendor supplier

Purchasing and procuring activities

Receiving and inspection

The material flow process

How the material is flowing but more important than that is the information flow.

Materials management system activities have impact on:

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

Receiving and inspection data is very important quality control activity during this process, where information about the quality is registered.

Production planning information/ sales information does impact the process of material management .Thus, Materials Management is a social technology, which demands professional expertise of its own and have a direct impact on the cost effectiveness of an organization. It can also be defined 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. But which department should be made responsible for coordinating the functions of Materials Management? In the recent past the Materials Management is not tied up to any group within an organization rather it is largely system-oriented, which takes into account functional dependence with a wide range of partial activities, where utility of materials is enhanced as these pass through each of the stages of the production process till the finished product. Thus, material management may be found a very suitable component that needs to be controlled by a centralized database or enterprise resource planning (ERP) packages

*Qn3 What is the scope of materials management?*

  However, after discussing so much about the role of material management it is worth mentioning the scope of the material management also. Although the scope of a material management system is vast, yet we can define the following functions as its scope functions.

***Material Planning and Controlling:***

One of the key functions that identify the scope of the materials management is the materials planning and control. This function is based on the sales forecast and the production plans of an organization. The activities of this function are:

Estimation of materials requirements

Preparation of materials budget of the organization

Estimating the levels of inventories required in the organization

Scheduling the orders placed with the vendors to ensure availability of material

Controlling by monitoring of production vis a vis sales.

***Purchasing:***

The purchasing is another major function for the materials management. This function contains the following activities:

Identification and selection of possible Suppliers

Finalizing the terms and references of purchases that are to be made.

Placing the purchase orders this activity may be staggered as per the inventory control function.

Managing the purchase orders till delivery of materials

Giving clearance to payment of received good; and

Analyzing the performance of the suppliers and rating them.

***Stores and Inventory Control***:

This function helps in physical control of materials. It has the following list of activities:

Minimization of material losses due to obsolescence and handling. This activity controls the timely disposal and efficient handling of materials.

Maintenance of stores records along with proper location and stocking of materials.

Physical verification of stocks and reconciling.

Performing inventory setting and control. Some such activities include performing ABC analysis, fixing economical ordering quantities, identification of selling safety stock levels, performing lead-time analysis etc.

*Qn4 Define the various roles of materials management in context of internal and external interfaces to materials management system*

: Dutta A.K (1998), Materials Management: Procedures, Text and Cases

In order to further define the strategic role of the material management let us relate it to the internal interfaces of material management in somewhat more detail. It is to be noted that material management indirect benefits already have related it to the external interface. A brief introduction to interfaces of materials management as described in “Source: Dutta A.K (1998), Materials Management: Procedures, Text and Cases.

Internal interfaces and role of Material management

***Market forecasting***

One of the keys role-played by materials management is to forecast the future demands. For example, if a university like IGNOU is printing study material for its students, it needs to manage the raw materials and well as the finished product that is the printed blocks. The first point here would be to ascertain what would be the demand of study material for the various Programs; 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 similar type/ area during last few years. Thus, materials management has a great role to play for an organization. But remember here, a forecast is always estimation.

***Production***:

One of the key roles of material management system would be to see that the process of production goes unhindered. For example, once again the case of the university as above, printing would require availability of printing paper and art card paper - required for covers. If any of the two papers is out-of-stocks the printing process cannot continue. In addition, please note that the demands have been predicted thus the material requirements can be calculated with this data. In production organizations making predictions is even more difficult as the sales are to be predicted without much of a basis.

***Finance:***

The material management is strategically very much linked to cost reduction. The cost may include the inventory cost and thus, have a major impact on the material budget. For example, one must procure the paper for the university, so that the paper requirement of printing in fulfilled in time, however, this should not cause any unnecessary hold up of the finance. The holdup time should be minimum. For example, if study materials are to be sent to student in the month of May-June then procurement of paper may be done in January-February so that study material can be printed in March-April.

***Inventory Control:***

One of the key strategic roles of material management would be to minimize the inventory of an organization. This also results in cost minimization. In general a production schedule is made in 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 in January-February such that the printing process 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. The products, whose quality deteriorates with time, are very likely candidates in this category. For example, if we buy paper 3-4 months in advance then proper storage conditions may need to be kept in store to avoid any deterioration of quality of the paper. This is also the problem of inventory control.

***Material handling, traffic and physical distribution logistics:***

The role here is to see that the material is handled and distributed easily. For example, the paper stores of the university may be located outside the campus and may be near the place where most of the printing presses are located. Also since the university sends the study materials through post, a unit of distribution may be located near some head post office

*Qn5 Describe the role of materials management in performing various functions in an organization?*

The material management for an organization is very important. Let us define some basic roles of it for various organizational functional Activities in the following table:

Role of Materials Management in Various Organizational Functional Activities

**Decision on making the materials or buying it.**

Such a decision may be taken if:

Supplies are not adequately obtained successfully in the past·

The quality of supplied goods is not of standard

·The volume requirement of sales is exceeding the possible manufacturing capacity

·The material fails in the cost analysis

**Materials Forecasting**

The materials management needs to forecast the requirements. Some of the questions that need to consider for it are:

**Materials Management: An Overview**

Is this material being needed for long time?

Will there be any requirement after 10years for this material? Will the supplier exist after 10 years?

Are there any changes or technological break- through for this material?

Are the prices going to rise in the future?

**Materials Planning and Budgeting**

Materials planning are of the major control activity that an organization needs to put in place. It is feasible because of materials management.

**Selection of Potential information sources**

This will include selection of suppliers, and other market research information such as price trends, corporate environment etc. The materials management data may help this task.

**Purchasing with a difference**

Purchasing commits a lot of capital of an organization. Materials management information allows very creative purchasing by organization as it sees most of the trends. It also helps while purchasing in uncertain situation.

**Forecasting of Price**

This is most essential function thus, has been kept separately also. A good price forecasting system based on material management and market research information may bring an organization into a win-win situation.

**Store Management and inventory control with a difference**

Materials management helps in the store

Functions such as: control of material being received, proper storage, minimization of obsolescence, highlighting of unused stocks, ensuring good housekeeping, verification of stock, timely delivery of goods, proper storage and presentation of materials, dealing with scrap materials etc.

*Qn6 Discuss the scope of a product.*

**Product scope** refers to the number of different items your company offers for sale. Your business goals usually determine the **scope** of **products** you carry. You 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.

PRODUCT CLASSIFICATION

Products can be classified based on various parameters. They are as follows:

Based on tangibility durability and intangibility into durable, non-durable and services respectively e.g. Soap, Milk, Newspaper, washing machine, Plumbing services etc.

o consumer products purchased for use by households and ultimate users these products are brought for personal consumption.

o 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 the 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

Specialty product

*Convenience Products*

Are those category of products bought regularly with ease and without any time consumption.

Milk, Vegetables, Newspaper are classic examples.

Shopping Products

Are those categories purchased irregularly only after considering factors like price quality, style performance etc. The prices of these product are generally high and consumer involvement-1s equally high. Clothing, furniture, Household Appliance fall under this category

*Specialty Product*

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. Example are

premium Cars, Audio & Video systems, five star restaurant etc. 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.

PRODUCT LINE AND PRODUCT MIX

All of us are familiar and exposed to the following terms.

**Product line**

Product line includes all closely related or similar products offered by the firm for example Audio systems offered by Philips is a product line. While televisions offered by the same company (Philips) is another product line.

While product mix encompasses and includes all individual products available offered by the firm. Thus the above example of Philips Audio systems and televisions collectivity form the product mix of Philips India Ltd. From the above we can now conclude that product mix includes all the product lines offered by the firm and further each product line has a range of models, sizes, styles etc.

PRODUCT MIX AND LINE DECISIONS

Product Mix

As already made a mention, it is the set of all products lines and items that a particular company offers to buyers. The width of the product mix refers to the number of different product lines a company carries. For example: Philips India Ltd. Product mix consists the following product.

lines namely music systems and video system (Television), lighting system and medical electronics catering to different markets across various segment.

The depth of product mix refers to the number of variants/models of each product are offered in the line for examples, Halo shampoo from Colgate-Palmolive comes in three formulations and three sizes and hence has a product mix depth of nine. Similarly Rasna soft drink concentrate from Pioma Industries has seven flavors which also forms the depth of the product mix.

The consistency of a product mix refer to how closely relate the various product lines are in end use. Hence, Philips's product lines are consistent in the sense that they are all electronic products while Wipro has a unrelated product mix. Merits of Product Mix

• helps in defining firms product portfolio based on width, depth and consistency.

• appeals to diverse consumer needs across various segments, thus helps in maximizing shelf space and sustain dealer support.

In the earlier discussion we have cited two examples namely Philips India offering products which are closely related and has consistency in its mix while in case of Wipro, it offers different products (unrelated) product lines like, consumer electronics, Information Technology products, and FMCG products making it a diversify mix of product offered to the market.

By and large consistent mix is easy to manage than diversified mix. It allows the marketer to concentrate on its core competencies, helps build and create a strong image among consumers and trade channels. However excessive consistency may be risky with limited scope leaving the marketer to a narrow range of business. Agro based companies are good examples in view of [94]

their vulnerable to environmental threats and vagaries of business. On the other hand companies like Wipro, Videocon etc. enjoy the benefit of diversified product mix.

**Line Stretching**

As the name suggests, the decisions pertaining to adding or dropping items from the line as and when it is profitable to do so.

Line stretching could be upwards, downwards or both ways. Downward stretch is apt when the company finds its offerings are at a high price end of the market and then stretch their line downwards for example, Daewoo motors, small car "Matiz" was originally introduced as a premium high end car with one single variant catering to the top end or the elite segment. Subsequently the feedback from market and research findings made the company to offer a low end variant to tap the low end market segment:

Today, Matiz offers four variants catering to all classes across various segments. This decision made the company a turnaround resulting in increased in sales manifold and continue to attract more customers.

On the other hand upward stretch is possible when the company enters the upper end through a line extension.

The reason could be a higher growth rate, increased market share tapping new market segment, better margins etc. A good example would be that of lifebuoy soap, which was initially positioned as a hygienic soap focusing the semi urban and rural mass markets: Currently lifebuoy is also into the high end premium liquid hand wash market catering to the higher strata of the society.

Line Fillings

Adding more items within the existing product range results in lengthening the line. Following are the reasons for line filling.

o aiming for incremental profit o optimal utilization of excess and underutilized capacities o an attempt to offer a full line of the product in response. o to dealer complain about lost sales because of missing items on the line.

The addition of double toned milk is an example of line filling. Mother dairy has added the said item to its existing range of full cream, and single toned milk thereby catering to the health conscious milk consumers. All the categories of milk mentioned above are easily identifiable by their packaging making the exchange process simple and easy.

***Qn7 Product mix and line decisions are viewed as strategic tools to increase market share and keep competition at bay. Discuss.***

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