

# EFFECTIVE MATERIALS MANAGEMENT FOR INCREASING PRODUCTIVITY

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## ABSTRACT

One of the problems facing Manufacturing Company is the growing trend towards the higher cost of materials and services and constant shut down of factory erode. The paper focuses on how business firm can attain profitability through effective management of materials. The objective of this paper is to identify problems of material management, which if corrected can result in profitability. The paper also examines and outlines the roles and benefits of materials management. The finding shows that there is need to recognize the materials management function and it has been suggested that for a firm to achieve profitability, the goal of materials management outlined in this paper should be properly carried out.

## INTRODUCTION

Profit is the entrepreneur's reward and in fact, a major motive for doing business. Most often too, it is used as an index for measuring performance. This paper is undertaken to outline how profitability can be achieved through effective management of raw materials. It focuses on cost reductions, adequate supply of materials and proper storage.

Materials management is a tool that can be used effectively in promoting profit maximization in a company. The objective of materials management is to maximize the use of the firms' resources by ensuring adequate supply of materials for production process and also minimizing cost of holding excessive inventories. This objective when achieved, leads to cost reduction and improve profitability. The researcher, therefore, intend to study profitability through effective management of materials, with Benue Brewery Ltd, Makurdi, Nigeria as a case study.

## OBJECTIVES OF MATERIALS MANAGEMENT

The classical definition of the objectives of materials management is the acquisition of materials and services of the right quality, in the right quantity, from the right source and at the right time. Apart from these general objectives, the following under listed points also constitute some of the objectives of materials management:

- To support the company operations with an uninterrupted flow of materials and services
- To reduce transportation cost of moving materials by making decisions on route to follow, the means of transportation and the vehicle to use.
- To provide information service for controlling the distribution of products, production management, instruction, manufacturing, routes and other background production information.

## **ROLE OF MATERIALS MANAGER**

The major role of materials manager is for the materials flow of the manufacturing company that includes the production planning, storage, production control and distribution. In fact all the functions of the management of materials are done by material manager.

For the effective material management, we need a highly skilled and educated manager. Since all processes of management will be held by manager only. The manager appointed should be highly skilled and must have information about the whole work or processes of the production.

The processes like production planning, storage, production, control and distribution comes under his observation. So he must have complete knowledge of all the processes to increase the profit and producing the more profitable product.

## **MATERIALS MANAGEMENT AND PRODUCTION DEPARTMENT**

Materials Management is responsible for the purchase of all materials needed by the production department, and the storage and issuance of these materials.

Production department makes requisition to materials management department of the materials needed. Materials management department raises a local purchase order for such materials.

## **MATERIALS MANAGEMENT AND QUALITY CONTROL DEPARTMENT**

In assurance of product quality, it is very important that the two departments cooperate and relay useful information to each other. According to Marta (2008) quality control department usually inform materials management on the best method to be applied to incoming materials and also the criteria for acceptance and rejection of materials that are substandard. Quality control can equally advise materials management on condition under which some items should be stored to avoid deterioration in quality.

## **MATERIALS MANAGEMENT AND MARKETING DEPARTMENT**

Materials management and marketing department should cooperate in ensuring the profitability of the organization. Materials management ability to obtain the right quality materials at the lowest possible cost, will enable marketing maintain competitive advantage. Consequently there will be increased sales and profit. Marketing department is in position to report back to the materials management department on the customers' reaction to the quality of the product.

## **FACTORS IN FAVOUR OF RAW MATERIAL**

A lot of cost is spent on raw materials which are the basics for the production process. For profitable product, we must spent on raw materials effectively. The following are the factors in favor of raw material:

- When it is cheaper to do so.
- Quantities required are too small for economic production.
- Spread of financial risk between customers and suppliers.
- Chance to use up idle capacity and resources.
- Possibility of scrap utilization.
- Greater purchasing power with large orders of a particular material.
- Ability to manage resources

## **MATERIALS RESOURCES**

This involves a careful handling of the stock and maintaining of an accurate control over them. Handling of material is one of the activities performed by materials management and can be an effective tool for saving cost and holding up profit. Storage of materials depends on the nature and how they are used in the manufacturing process. Profits can be achieved if managers effectively manage issues relating to stores location, layout and equipment inspection, protection of stores, issues to production, stock records and disposal of obsolete. Storage goes hand in hand with store recording.

## **INVENTORY CONTROL**

Inventory control determines the extent of stock holding of materials. It equally makes it possible for material manager to carry out accurate and efficient operation of the manufacturing organization through decoupling of individual segment of the total operation and it entails the process of assessing of stock into the store house and the issue of stock. For profitability and cost reduction, manager must therefore, maintain an optimum level of stock at all time. Therefore, a company can only realize substantial savings by using a rational procedure for inventory control.

## **TRANSPORTATION**

The traffic section, which is involved in the physical movement of materials throughout the entire production stages, is important for profitability and cost reduction. Materials movement could be in-house or external. The in-house are determined by the nature of the materials by the layout of the factory and by the type of product made. It makes use of such devices as cranes, pipelines, trucks, forklift, etc. one plant to another or from stores at the head office to a plant as well as moving finished goods from suppliers. It involves waterways, pipelines, railroads, trucks, airplane, etc. For profitability it involves decisions in the following

**Table 1.** Materials management problems in Benue breweries.

Response	No. of response	Very significant	%	Moderate	%	Slight extent	%	Not at all	%	Total
Pilfering	86	40	47	20	23	20	23	6	7	100
Sub-standard raw materials	86	0	0	11	13	30	35	45	52	100
Out of Stocks	86	86	100	0	0	0	0	0	0	100
Spare parts	86	86	100	0	0	0	0	0	0	100
Poor Relationship with Vendors	86	80	93	6	7	0	0	0	0	100

Source: Research Data, 2008.

**Table 2.** Extent of materials management problems on plant efficiency.

Response	Respondents	Percentage
60% and above	50	58
50 - 35%	20	23
35% and below	16	19
Total	86	100

Source: Research Data, 2008.

**Table 3.** Chi-square computation.

Response	Fo	Fe	Fo - Fe	(Fo - Fe) <sup>2</sup>	$\frac{(Fo - Fe)^2}{Fe}$
60% and above	50	29	21	441	15.21
50 - 35%	20	29	-9	81	2.79
35% and below	16	29	-13	169	5.83
					23.83

Source: Research Data, 2008.

## RESULTS AND DISCUSSION

As stated under methodology, a total of ninety four (94) copies of questionnaires were distributed, out of which eighty-six (86) copies retrieved as correctly filled. The analyses that follow are based on all the retrieved copies of answered questionnaires.

All eighty-six respondents agreed that the receipt of substandard raw materials is a problem of materials management, though they vary in degree attached to this problem. None of the respondents stated it as a very serious problem. 13% stated this moderately significant, 35% stated it is only slightly significant as a problem, 52% stated it is not sufficient at all.

All eighty-six respondents unanimously agreed that, out of stock (finished product) and lack of spare parts are very significant problems in Benue Breweries Limited.

This question from the research questionnaire will be used to test the hypothesis.

This paper found out that there is a positive and significant relationship between materials management problems and the frequent breakdown of the plant.

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