

# Cost Management and Corporate Performance in Quoted Manufacturing Companies in Nigeria

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**Abstract:** This research work studied the effect of Cost Management on performance of manufacturing companies in Nigeria. The study sought to examine some best practices in the management of cost management and their influence on performance of manufacturing companies taking into account the unique attributes of the Nigerian economy. This Study is predicated on the portfolio theory, resource based view theory and efficient structure theory. Secondary data source was explored in presenting the facts of the situation. The secondary data were obtained from annual reports and relevant literatures among other. Data were tested using the Ordinary Least Square Linear Regression model. From the financial reports of companies, information concerning direct material cost, direct labour cost and production overhead (independent variables) and operating profit (dependent variable) of listed companies in Nigeria were extracted. The result shows that Shareholders' Funds positively relate to profitability and significant at 5 percent and that the Total Asset also positively relate to profitability at 5 percent level of significance. This study shows that cost management in manufacturing companies have a significant impact on profits generated from Production Operations. The study concluded that an efficient cost Management has significant influence on profitability. The study then recommends among others, that Company policy makers and transaction advisors should be keen on making cost management policies to be applied since they greatly impact on financial performance of the company.

**Keywords:** Cost Management, Direct Material Cost, Direct Labour Cost, Production Overhead, Profitability, Operating Profit.

## I. Introduction

Cost management is at the core of enterprise performance management, as it represents the bottom line for every company. However, there are multiple reasons why cost management is of particular relevance, especially today. In most organizations, the indirect costs as part of overall costs are growing and customer self-service business models rule, so that organizations even bear the risk of losing grip on their direct cost in their business processes. Economic pressures complete the picture. In short, to preserve margins and ensure profitability, organizations need to keep their eye on the ball and monitor their business processes continuously. Most organizations go through a maturity lifecycle for profitability. This profitability maturity lifecycle is largely understood as organizations go through an evolution without realizing they are moving from one stage to another. Cost Management drives business performance by discovering drivers of cost and profitability, empowering users with visibility and flexibility, and improving resource position.

Profitability management can be defined both from a top-down and a bottom-up perspective. From a top-down point of view, profitability management consists of a set of processes and a methodology to bring all costs and revenues together on an operational level, providing operational managers with the insight on how to deploy their resources in an optimal way. Bottom-up profitability management entails the process and methodology of identifying the organization's operational cost and value drivers at a transactional level and aggregating them up to translate their workings into financial results.

Although profitability management comprises both the revenue and cost side of the business, there is usually a stronger focus on cost management, particularly indirect costs. Indirect costs are all costs not directly associated with the production and sales of products and services, such as marketing, finance, IT, facility management, HR, and other supporting functions. Allocating revenues to operations is a fairly straightforward process. It is usually clear which product was sold to which customer, and can be counted as revenue in a particular period. However, it is not always easy

to attribute revenue to organizational divisions, business units or departments. And it is harder to define a method to allocate overhead and other forms of indirect costs to business processes. Despite its history and available best practices, cost management remains a vital goal.

### II. Review of Literature

#### 2.1 Conceptual Review

In today's business environment companies focus increasingly on cost management. Modern cost management assumes knowledge of cost accounting and managerial accounting, although the purposes and methods of cost management differ in important ways from those of cost accounting and managerial accounting. The primary purpose of cost accounting has always been to calculate inventory and cost of goods sold for financial statement purposes. In other words, the focus of cost accounting is on external financial reporting. The primary concern of cost management, by contrast, refers to internal decision-making (Handbook of Cost Management, 2001).

Although managerial accounting has always been intended to provide support for decision-making used internally by managers, its emphasis and methods have been attacked relentlessly since the mid-1980s. The criticisms point out those traditional systems fails to provide relevant and timely information for managerial decision making. Too often, traditional cost systems provide inaccurate and misleading product and customer cost information. They focus too narrowly on historical information. They also emphasize the firm as the unit of analysis, not considering the entire supply chain of which the firm is only a part. In short, they emphasize an outward-focused historical cost lens, rather than a customer-focused prospective cost lens. Traditional cost systems also contribute to dysfunctional behaviour such as producing excess inventory to absorb overhead or buying substandard raw materials to meet price targets. By contrast, cost management emphasizes better full-stream product and customer information. Cost management helps a company improve its product and processes by reducing waste and other non-value-adding activities. Although modern cost management requires knowledge of cost accounting and managerial accounting, it also assumes intimate familiarity with all business processes, and with full stream supply chains. Cost managers cannot measure and manage what they do not understand (Tekavic & Sink, 2002).

According to Oliver, (2000), cost management is a set of techniques and methods for planning, measuring, and reporting intended to improve a company's products and processes. Its ultimate purpose is to provide information that companies need to provide the value that customers demand. Most people would argue about the basic tools, techniques, and methods that, together, constitute cost management. These tools, techniques, and methods are directly or indirectly related to cost management. Installing a cost management tool will not, by itself, increase company performance. Although executives and managers usually talk about cost managements as if they were an end in themselves, company should implement each of these projects only to improve its performance.

According to Zengin and Ada, (2010), the most important managerial tools are cost management strategies and cost management strategies are considered as critical factors to increase revenue for the success of manufacturing companies. Cost management strategy supports decision making and improves competitive advantage that results in a better resource allocation (Ellram and Stanley, 2008). In addition, cost management may be an integral feature of overall businesses' management effectiveness and facilitate to determine accurately estimated cost before process starting and can help to forecast cost occurrence in the future. Cost management strategy effectiveness helps to finish the task with the spending of limited allocated resources and makes valuable to firms such as working capital invested reduction, lower cost per unit, and better quality of the process and product (Groth & Kinney, 1994). Limited resource and apparent continuous competition influence firms to better managing cost of production by implementing standard costing, budget system, monitoring cost information, and focusing on value added activities by eliminating non-value added activities through supplier coordination, and emphasizing on cost structure by analysing cost and finding the way to reduce costs in the stage of pre-production. Firms with cost management strategy implementation are able to know when the amount of cost they will incur in the future if they have current and future cost information. Thus, managers can make better decision which will positively improve the financial performance of manufacturing companies.

Traditional cost systems were based on controlling costs and quality and balancing them temporary, and also focus on internal efficiency. On the contrary, cost management is a process of quality planning and cost decreasing that manages the costs before their occurrence. A well planned cost management system will provide improvements in quality, cost/price and functionality of a product. Manufacturing companies use modern cost management techniques in their daily operations which has a great impact on their financial performance that generate costs of non-added values and cost reduction refers to an attempt to attain lower current fixed costs and variable costs associated with an essential activity (Groth and Kinney, 1994). The three dimensional cost management strategies are applied in three areas which are: managing cost of stock, cost of labour and cost of sales and distribution.

### **2.1.1 Determinant of Financial Performance**

Financial performance is the single most important factor in assessing growth potential, earnings capacity and overall financial strength. The business dictionary defines financial performance as measuring results of a firm's policies and operations in monetary terms and these results are reflected in firm's return on investments, return on assets, return on equity, liquidity and solvency.

Salter (1995) suggested that performance measurement of corporate and business unit has three dimensions: (1) effectiveness, (2) efficiency, and (3) adaptability. Some indicators of three dimensions are returns on investment, sales growth, and new product success, respectively. He further argued that relative performance measures appropriate surrogates for objective measures in the single-industry sample.

Morgan (2012) suggested that business performance consists of two aspects: market performance and financial performance. Market performance relates to customer behaviours. Higher sales volume, customer satisfaction increases, customer loyalty, and growth of market shares are indicators of market performance while the financial performance is measured in accounting terms. This study defines firm performance as a goal achievement and financial performance that are indicated by the net income goal achievement, sales amount and market share increases, the better return on investment, and the growth and continuance of overall performance. Business operation focus on highest potential profit and a common approach is a cost control that is expected to produce the greatest overall financial performance.

Cost management strategy implementation success might generate value to the firm, for example, the greater control production activities results in better quality of procedure and lowers the unit cost of goods and cost variance. In addition, the consequence of the cost management success is firm value increasing and profit improvement that positively affects firms' value greater than pricing (Groth and Kinney, 1994). Therefore, it can be expected that cost management implementation will increase firm performance.

Financial performance measures are intended to evaluate the effectiveness and efficiency by which manufacturing companies use financial and physical capital to create value for shareholders. The key recommended measures for financial analysis include: profitability, liquidity and solvency (Zengin& Ada, 2010). Profitability measures the extent to which a business generates a profit from the factors of production: labour, management and capital. Profitability is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Four useful profitability ratios and measures are the return on assets (ROA), return on equity (ROE), operating profit margin and net income. The ROA measures the returns to all assets and is often used as an overall index profitability and the higher the value, the more profitable the business. ROE measures the rate of return on the owners' equity employed in the business. It is useful to consider ROE in relation to ROA to determine if the firm is making profitable returns on their borrowed money. Operating profit margin measures the returns to capital per unit of gross revenue. Net income comes directly off the income statement and is calculated by matching revenues with the expenses incurred to create those revenues, plus the gain or loss on the sale of capital assets (Zengin& Ada, 2010). Liquidity measures the ability of the business to meet its financial obligations as they come due, without disrupting the normal, ongoing operations of the business. It is measured by Current ratio which is current assets over current liabilities.

### **2.1.2 Effect of Cost Management on Financial Performance**

The expected relationship between cost management strategies and financial performance is as follows: The researcher anticipates either a positive or negative relationship of cost management strategies and financial performance. One school of thoughts argues that there is a positive relationship in that cost management strategies are considered as critical factors to increase revenue for the success of manufacturing companies. Another positive relationship is that cost containment techniques such as standard costing, sourcing and budget system limit the highest cost that could be incurred and as a result for the same level of income, the expenses are lower which results to increase in profitability. Cost reduction which refers to an attempt to attain lower current fixed costs and variable costs associated with an essential activity (Groth and Kinney, 1994).

As a result of this total output of assets is low compared to the resulting income generated. These results to rising of (ROA) ratio hence increase in profitability. Cost avoidance which refers to the eliminated activities that generate costs of non-added values has a positive impact on profitability in that costs which increase expenditure with no future income generation are done away with hence reducing the negative impact on income. Positive elevation of Income leads to increase in (ROA) and in profitability as well which is the measure of financial performance in this study. Another approach which indicates a negative relationship of cost management to financial performance measurement advocates for supplementing traditional cost accounting measures with a diverse mix of non-costing measures that are expected to capture key strategic performance dimensions that are not accurately reflected in short-term accounting measures.

Blocher, Chen, Cokins & Lin, (2005) indicate that many firms believe that cost accounting measures are too historical and “backward-looking” lack predictive ability to explain future performance, reward short-term or incorrect behaviour, provide little information on root causes or solution problems, and give inadequate consideration to difficult to quantify “intangible” assets such as intellectual capital. As a result, many firms are supplementing cost accounting metrics with a diverse set of non-cost performance measures that are believed to provide better information on financial progress and success.

### 2.2 Theoretical Framework

#### 2.2.1 Portfolio Theory

The theory of portfolio management describes the resulting risk and return of a combination of individual asset. A primary objective of the theory is to identify asset combinations that are efficient. Here efficiency means the highest expected rate of return on an investment for a specific level of risk. This simply means that they will not consider a portfolio with more risk unless it is accompanied by a higher expected rate of return.

Modern Portfolio theory was largely defined by the work of Markowitz (1952) in a series of articles published in the late 1950s. This theory was extended and refined by Tobin (1941) in the subsequent decades. Portfolio theory integrates the process of efficient portfolio formation to the pricing of individual assets. It explains that some sources of risk associated with individual assets can be diversified by holding a proper combination of assets. Prior to Markowitz work, investors focused on assessing the risks and rewards of individual securities in constructing their portfolios. Standard investment advice was to identify those securities that offered the best opportunities for gain with the least risk and then construct a portfolio from these. Markowitz has detailed the mathematics of diversification and proposed that investors focus on selecting portfolios based on their overall risk-reward characteristics instead of merely compiling portfolio from securities that each individually has attractive risk reward measures.

#### 2.2.2 Resource Based View Theory

Pearce and Robinson, (2011) define the resource-based view (RBV) as a method of analyzing and identifying a firm's strategic advantages based on examining its distinct combination of assets, skills, capabilities and intangibles as an organization. This theory views the firm-specific factors and their effect on performance. Grant, (1991) views the firm as a bundle of resources which are combined to create organizational capabilities which it can use to earn above average profitability. Firms develop competencies from these resources and when they are well developed, these become the source of the firm's competitive advantage.

Penrose (1959) explains the importance of resources including organizational processes, assets, capabilities, information and knowledge controlled by the firm. These resources improve efficiency and effectiveness that will lead to higher financial performance of firms. The desire to understand the effect of firm's characteristics on financial performance has been so controversial in the research field. One side argues that the firm financial performance is influenced by structural characteristics of the industry (Bain, 1959) and on the other hand others argue that it is influenced by firm specific resources. Recently much focus has been given to firms level characteristics as opposed to the industry level characteristics since it forms the basis upon which the firms compete. For the purpose of this study cost management strategies will be the main focus since they are part of structural characteristics of firms. The theory which explains the effect of firm's characteristics which are internal factors to the organization with respect to financial performance is the resource-based view (RBV). In this study we shall look at cost management strategies and their impact on the financial performances of manufacturing companies. However the criticism put across on the use of RBV is that researchers only concentrate on one resource type: that is, intangible assets within a single industry and examine its effect on firm's performance (Kapelko, 2006).

#### 2.2.3 Efficiency Structure Theory (ES)

The ES hypothesis states that firms earn high profits because they are more efficient than others. There are two distinct approaches within the ES; the X-efficiency and scale-efficiency hypothesis. According to the X-efficiency approach, more efficient firms are more profitable since they have lower costs. Such firms tend to gain larger market shares, which may manifest in higher levels on market concentration, but without any causal relationship from concentration to profitability (Athanasoglou, Denis & Staikouras, 2006). The scale approach emphasizes economies of scale rather than differences in management or production technology. Larger firms can obtain lower unit cost and higher profits through economies of scale. This enables large firms to acquire market share, which may manifest in higher concentration and then profitability.

III. Methodology

The study adopted secondary source of data for the analysis. The study utilized data gotten from relevant journals, articles and seminar papers. Data on three listed manufacturing companies (Berger Paint, Lafarge Cement and Meyer Plc) concerning Direct Material Cost, Direct Labour Cost, Production Overhead, Administrative Expenses and Operating Profit were extracted for the period 2014-2017. Multiple regression analysis was employed as a means of testing the impact of cost management on performance of manufacturing companies in Nigeria.

Model Specification

In this study, the model shall contain two equations. Whilst the first is on determinant of cost management in a business organization, the second is on impact of cost management(CM) on financial performance using Direct Material Cost(DMC), Direct Labour Cost(DLC), Production Overhead(POH)as the independent variables and regressed against the dependent variable, operating profit (OP) used as proxy for financial performance.

The model used will be expressed mathematically as thus:

Equation one and two can written as

$$CM = \{DMC, DLC, POH\} \dots \dots \dots (i)$$

$$OP = f\{DMC, DLC, POH\} \dots \dots \dots (ii)$$

Multivariate Regression model would be;  $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 \dots \dots + \beta_n X_n + \epsilon$

Thus, Regression equation becomes;  $OP = \alpha + \beta_1 [DMC] + \beta_2 [DLC] + \beta_3 [POH] + \epsilon$

Where Y= the value of dependent variables;  $\alpha$ = the constant term;  $\beta$ = the coefficient of the function; X= the value of independent variables; and  $\epsilon$  = error term.

IV. Analysis of Findings

4.1 Test of Hypothesis

H<sub>0</sub>: Cost Management does not have significant impact on performance of large scale companies in Nigeria.

H<sub>1</sub>: Cost Management have significant impact on performance of large scale companies in Nigeria.

Dependent Variable: OP				
Method: Ordinary Least Squares				
Date: 08/18/18 Time: 12:29				
Sample: 2013-2016				
Included observations: 9				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.023098	0.018590	1.242454	0.0278
DMC	-0.078140	0.034688	2.252635	0.0351
DLC	-0.080631	0.058295	1.383159	0.0211
POH	-0.000437	0.011476	0.038038	0.0170
R-squared	0.235756	Mean dependent var		0.042250
Adjusted R-squared	0.126579	S.D. dependent var		0.026012
S.E. of regression	0.024310	Akaike info criterion		-4.450223
Sum squared resid	0.012410	Schwarz criterion		-4.255203
Log likelihood	59.62779	Hannan-Quinn criter.		-4.396133
F-statistic	2.159383	Durbin-Watson stat		1.628468
Prob(F-statistic)	0.043082			

The regression result in table above shows that the three independent variables, direct material cost, direct labour cost and production overheadcost have negative coefficients. This connotes that an increase in these costs will lead to a decrease in operating profit.

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The R-squared (Coefficient of Determination) can only account for 24% for all the selected manufacturing companies under observation. All the variables; Direct Material Cost, Direct Labour Cost and Production Overhead Cost are statistically significant. This is because their P-values are less than 0.05.

The Overall Prob (F-statistic) is statistically significant. This is because 0.043082 is less than the accepted level of significance, which is 0.05. This purports that the null hypothesis should be rejected. Therefore, the result shows that Cost Management has significant impact on performance of large scale companies in Nigeria proxied by Operating Profit (OP). This can be explained to mean that cost management in manufacturing companies has a significant impact on profits generated from Production Operations.

### V. Summary, Conclusion and Recommendation

This study sought to find out the cost management strategies which are applied by manufacturing companies trading in the Nigerian Stock Exchange (NSE). We have also tried to establish the relationship between cost management strategies and financial performance of manufacturing companies. The manufacturing companies indicated that a threat to their operations and to the advancement of their financial performance was high distribution costs. The manufacturing firms indicated that automation of the production process, retrenchment of unproductive staff and replacement of high salaried employees with low salaried ones had a positive impact on financial performance. They indicated that if the remuneration policies regarding salaries and wages changed, they would have a negative impact on their financial performance.

From the research work conducted, we were able to conclude that indeed high production cost decreases financial performance. Through this, we could be able to ascertain that indeed production cost and financial performance have a relationship which exists. With certainty, we could gather from the findings that the managed cost of the production would have a positive impact on the financial performance of these manufacturing companies.

This study therefore recommends that,

Company policy makers and transaction advisors should be keen on making cost management policies to be applied since they greatly impact on financial performance of the company. Company policies regarding financial performance of companies should incorporate various cost management strategies since they greatly impact financial performance. Financial policies regarding cost management strategies should be formulated and be used keenly and with a lot of controls to avoid critical financial losses.

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