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COST REDUCTION STRATEGIES AND THE GROWTH OF SELECTED MANUFACTURING COMPANIES IN NIGERIA

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ABSTRACT

The problem of high manufacturing costs has led to the shutdown of many manufacturing companies in Nigeria. This study examines the relationship between cost reduction strategies and the growth of manufacturing companies in Nigeria using data from annual reports of 40 manufacturing companies quoted on the Nigeria Stock Exchange within the period of 2012-2016. 40 manufacturing companies were sampled purposively for this study. The study took changes in material cost, changes in labour cost and changes in administrative overhead as variables for cost reduction strategies while changes in turnover as the variable for Growth. Correlation analysis was conducted to determine the association cost reduction strategies and growth while, regression analysis was used to determine the impact of cost reduction strategies on the growth of manufacturing companies. Results showed a positive significant relationship between cost reduction strategies and growth of manufacturing companies in Nigeria. The study recommends that manufacturing companies should implement value analysis in order to reduce material costs and the implementation of cost reduction strategies in all manufacturing companies in Nigeria.

Key words: Strategic Management Accounting, Cost reduction strategies, Value analysis, Budget Discipline, Nigeria

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1. INTRODUCTION

The growth of any company is largely determined by how well it can manage its costs. This is partly because to be able to maximize profit, cost must be reduced to the bearest minimum. Cost reduction has become a vital tool for companies to constantly stay ahead of the increased competition in the business environment (Alireza & Mahdi, 2012). Indeed, even organizations that are gainful can profit by implementing cost-lessening techniques to make a considerably higher overall revenue on its items or administrations. According to Ogunnaike (2010), the effective and efficient management of cost is not only necessary to meet the profit objective of the company but also the going concern status of the entity. To record growth in terms of increase in profit of an organization, cost reduction mechanism should be put in place.

Chartered Institute of Management Accountants (CIMA), London defined cost reduction as the achievement of real and permanent reduction in the unit cost of goods manufactured or services rendered without damaging the ability of the product to serve the purpose for which it was intended. According to Gaurav,Jain,Kapoor and Nateriya (2013), cost reduction is "the way toward searching for, finding and expelling baseless costs from a business to build the benefit without negatively affecting item quality". The concept of continuously searching for new ways and avenue of reducing costs needs to be constantly promoted at all levels of an enterprise, which signifies that the enterprise has a strategic approach to this issue (Figar& Ivanoic, 2015).

Cost reduction strategies such as value engineering and value analysis, tight budgetary control (budget discipline), target costing and life cycle costing can be adopted by manufacturing companies to reduce the material cost, labor cost and productivity cost attributed to manufacturing. This research is therefore concerned with the nexus between cost reduction strategies and growth of manufacturing companies in Nigeria.

2. LITERATURE REVIEW

2.1. Concept of Cost Reduction

Low production costs has become one of the primary ways that organizations compete in a global economy, hence, cost reduction must continually be in the minds of managers of organization (McWatters, Morse, & Zimmerman, 2001). Cost reduction is a planned approach to reduce expenditure. It is a continuous process of examining critically all elements of cost and each aspect of the business with a view to improving business efficiency. cost reduction is a corrective function. Cost reduction is the process of cutting down costs incurred by an organization for the purpose of making profit. It starts when cost control ends and considers that no cost is at its optimum level. According to Adeniyi (2001), cost reduction starts with an assumption that current cost levels or planned cost levels are too high despite the fact that cost control may be good and organization experiencing high efficiency levels.

2.2. Concept of Growth

According to Webster dictionary, growth is defined as the process of growing, progressive development, increase and expansion. Growth is a positive change in size over a period of time. Growth is defined as a gradual development in maturity, age, size, weight or height.

In Economics, growth is seen as increase in the capacity of an economy to produce goods and services compared from one period of time to another. According to Amadeo (2017), an economy is said to be growing if it produces more than it did in the prior period. According to the economists, Growth connotes two things; increase in the output produced by an economy over time and increase in what an economy is able to produce using all its scarce resources.

Business dictionary defined business growth as the process of improving some measure of a firm’s success. It refers to progressive development in a business specified by either increase in size or expansion. Pitch Partner Growth opined that there is no specific definition for business growth; as it could mean a lot things ranging from sales growth, market expansion and business value growth. Benchmarking your company against competitors, using industry average to assess business growth, monitoring the growth of workforce, evaluating gross margin growth, evaluating net margin growth and examining company's market share growth are ways business growth is measured(Arthur, 2016).

In the view of Gupta, Guha and Krishnaswami(2013),growth can be defined in terms of revenue generation, value addition, and expansion in terms of volume of the business. Growth can also be measured using qualitative features like market position, quality of product, and goodwill of the customers. Most times when businesses record increase in sale of its products causing increase in income generation, it is said that the company is growing(Arthur,2016). Growth has become the quest of all business owners because of reasons such as; responding to market demand, increase in profit and attaining business stability. This is because as businesses become large they can maximize and benefit from economies of scale, bulk discounts and better supplier credit terms, which mean cost, are driven down and profits increased.

2.3. Relationship between Material Costs and Sales Growth

A hike in the prices of materials or components required to make product leave businesses with no choice than to increase the price for their products. The aim of the seller is to make profit on the sale of his items; this leads him to raise the product price to cover for the extra cost incurred by him in acquiring materials while maintaining the level of profit (Tepper, 2017). Usually, the market reaction to an increase in price is reduced sales, as customers in their rational nature will always go for a product when the price is low than when its increases. As long as customers continue to act rationally, an increase in price of products will reduce the amount of sales to be made. This fall in sales has an adverse effect on the growth of a company because a company can not grow without making sales. Constantly, revenue increase is a typical indicator of financial wellbeing of a company. As a matter, of fact, revenue is made from sales and profit is derived from the revenue by deducting all costs, hence, no/low revenue, and no profit.

2.4. Relationship between Labour Costs and Turnover

Labour costs forms a significant portion of overheads of most businesses regardless of whatever industry they belong to(Tonkins, 2016). Since labour costs form a significant portion of business costs, increased labour costs increases the cost of doing business and these cost is transferred to customers in high prices. According to the law of demand which states that the higher the price the lower the demand and vice versa, sales will reduced because of the increase in price. Therefore, it can be said that labour costs affect business turnover(sales). Since manufacturing companies need increased sales to experience growth, hence, it can be conclusively said that labour costs affect the growth of companies.

2.5. Cost reduction Strategies

2.5.1. Kaizen Costing

Kaizen costing is the procedure of constant cost lessening that happens when a product is in the production stage. It is a process of continuous improvement that empowers steady decreases in cost by fixing the standard (Adeniji, 2011). It is a procedure for decreasing cost which centers around the creation procedure and accomplishes cost reduction by essentially expanding the productivity of the generation procedure (Asaolu & Nassar, 2007). Kaizen is authored from two words: KAI which signifies "change" and ZEN which signifies "for better" (Rof, 2012). Kaizen is a Japanese expression for making upgrades to a procedure in little incremental sums instead of through substantial developments. Kaizen's incremental approach is considered appropriate because products are already in the manufacturing process making it difficult to make large changes to reduce costs.

2.5.2. Value Analysis

Value analysis is one of the major cost reduction techniques. It is an organized method of identifying and eliminating unnecessary costs associated with product or service by conducting an analysis of function of each component of the product. It is an almost universal method used for analyzing existing products and services offered by production companies with basic principle of offering value for the lowest or optimal production costs (Leber, Bastic, Marvic, & Ivanisevic, 2013). It is an approach to improving that focuses on improving the value of an item or process by understanding its constituent's components and their associated costs. It is an organized examination of every item of cost which goes into production. The very core of VA is the effort to determine and eliminate those characteristics of products or services with no real value for the customer or the product, but which, nevertheless, cause costs in the production process or service delivery(Leber et al, 2013).

2.5.3. Budgetary Control

The process by which future spending plans are compared with the actual performance to find out variances is termed budgetary control. It alludes to how managers effectively utilize budgets to screen and control costs within a given timeframe Budgetary control guarantees that the targets of the budgetary plans are achieved (Assaolu.T.&Nassar.M, 2007). Budgetary control systems cover all phases of business activity, sales, production, administration and finance and serves as a yardstick for comparison (Collier, 2015). It is a strategy for reducing cost that disengages issues by concentrating on those variances which serve as warning signals to managers. It controls cost by limiting the allowable expenses for different departmental heads, hence, costs are not expected to exceed certain levels. The hallmark of Budgetary control is to achieve profit maximization through appropriate coordination of various capacities, legitimate control of capital and income consumptions and making greatest utilization of accessible assets (Preetabh, 2010).

2.6. Theoretical Review

2.6.1. Going Concern Theory

The going concern principle states that an entity will continue actively in business for the foreseeable future and will not be forced to bring its operations to a stand still or have its assets liquidated (The going concern principle, 2017). Theory of going concern refers to the ability of a company to make enough money to stay afloat without having to go bankrupt. The theory is premised on the assumption that an enterprise will continuously carry out its operating activities for a period of time that is sufficient enough to meet its obligations and commitments as they fall due. In other words, it is presumed that the company would have no reason to liquidate or be forced out of business in the foreseeable future. Since it is assumed that a company will not be forced to halt operations, then management will have to make provisions to curb anything that will negate such assumption.

Rising costs is the major factor that affects the going concern status of a business organization as uncontrolled cost can force a company to halt operations. Uncontrolled costs affect the ability of the company to make profit, thus, without profit company can not fulfill its obligations, neither can it experience growth.

2.6.2. Neo-classical Growth Theory

Neo classical growth theory summaries how a stable growth rate can be achieved with the proper amount of three powerful forces: labour capital and technology. The theory states that varying the amounts of labour and capital in a production function leads to a state of equilibrium. It emphasizes that three factors influence the growth of an economy (Otekunrin, A.O**.,** Nwanji, T.I., Olowookere, J.K., Egbide, Fakile, S.A., Lawal, A.I., Ajayi, S.A., Falaye, A.J. & Eluyela, D.F., (2018)) .The theory also argues that technological change has a major influence on an economy, and that economic growth cannot continue without advances in technology. In manufacturing companies, three factors affect its capacity to grow; material cost, labour cost and overhead expenses. These factors have a major influence on the profit maximization ability of the firm, thus, hindering its ability to grow. Manufacturing firms will experience growth if these costs can be rightly allocated, controlled and ultimately reduced. In an economy where these costs are greatly affected by inflation, recession and other factors, a strategy must be put in place to ensure that these costs do not exceed the bearable point.

2.7. Empirical Framework

Barbole,Yuraj, and Santosh(2013) conducted an examination on the impact of cost control and cost reduction strategies on the manufacturing sector. Research findings show that cost control and cost reduction activities are required for businesses to survive, grow and prosper. They further explained several cost control and cost reduction tools and techniques and also carried out an analysis of the changes that occur in component cost after implementing the various techniques. The study is limited to material cost; it does not include labour costs and other overheads in its analysis. The study therefore recommends that manufacturing companies should make use of value engineering, budgetary control and quality control for cost control and cost reduction in production plant.

The study of Oyerogba, Olaleye&Solomon (2014), examined the relationship between cost management practices implemented by manufacturing firms and its. The study utilized data from 40 manufacturing companies quoted on the stock exchange during the period of 2003-2012 for their analysis. Findings show that there exists a positive significant relationship between cost management practices and firms performance in the manufacturing sector. Empirical findings also showed that cost-effective manufacturing firms maintain low administrative overhead cost. The study recommends the implementation of a cost reduction strategy with emphasis on production and administrative overhead costs if manufacturing firms intend to achieve their profit maximization and wealth creation objective. Lawal(2017), discovered in his study that cost control has a positive impact on organizational performance. He examined the effect of cost control and cost reduction technique on organizational performance with major emphasis on budgetary control as an effective tool of cost reduction and cost control. He viewed the importance of cost reduction scheme as something that can not be overstated and suggests that companies undertake frequent examination of costs in order to curb excessiveness, thereby, eliminating costs. It was concluded in his study that for an organization to experience more profit growth by producing quality goods and services, there is a need to control and reduce cost to the acceptable limit.

3. RESEARCH METHODS

This study investigated the relationship between cost reduction strategies and growth of selected manufacturing companies in Nigeria by means of descriptive statistics. The study adopted the use of secondary data which was extracted from the annual reports of the selected companies. The statistical methods used in the analysis include the correlation and regression analysis.

The model for this study was:

CTNO= α_0+ α_1CMC+α_2CLC+α_3CAO+α_4CFS+µ

Where;

CTNO: changes In turnover

CMC: changes in material costs

CAO: changes in administrative overheads

CFS: changes in factory overheads

4. PRESENTATION AND ANALYSIS OF DATA

Table 1

Variable |	Obs	Mean	Std. Dev.	Min	Max
PCTURN	185	2.760968	26.71224	-100	131.8142
PCMC	168	62.96122	337.8556	-1663.661	2087.932
PCLC	170	17.43493	113.2107	-119.9791	992.7472
PCADMCOST	188	630.5235	8257.689	-223.0921	113217.3
PCTASSETS	189	8.613528	29.66898	-100	134.1635

Note: the descriptive statistics for the study presented in table 1 was from a sample of 40 companies listed on the Nigerian stock exchange for a period of 5 years covering 2012 to 2016. In reference to the explanatory variables, PCMC refers to percentage change in material costs which represents the percentage change in material costs for the period under consideration, PCLC represents the percentage change in labour costs while PCADMCOST and PCTASSETS were used to represent the percentage change in labour cost and total assets respectively.

Table 2 Regression Analysis

Source	SS	df	MS
Model	46658.4406	4	11664.6101
Residual	82889.3709	160	518.058568
Total	129547.811	164	789.92568

Number of obs =	165
F(4, 160) =	22.52
Prob > F =	0.0000
R-squared =	0.3602
Adj R-squared =	0.3442
Root MSE =	22.761

PCTURN	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
PCMC	.0148938	.0052638	2.83	0.005	.0044983	.0252894
PCLC	.0119441	.015569	0.77	0.444	-.0188031	.0426913
PCADMCOST	.0000397	.0002018	0.20	0.844	-.0003587	.0004382
PCTASSETS	.5762511	.0631175	9.13	0.000	.4516003	.7009019
_cons	-3.061392	1.906829	-1.61	0.110	-6.827193	.704408

Results showed an overall significant relationship between cost reduction strategies and growth of manufacturing companies in Nigeria. T statistics showed a significant relationship between changes in material costs and changes in turnover and also showed that there exist a significant relationship between changes in total assets and changes in turnover.

5. DISCUSSION AND INTERPRETATION OF FINDINGS

In this study, R squared value was 0.3602. This implies that the combined effects of changes in material costs, changes in labour costs and changes in administrative overheads explained 36% of the variation in the growth of manufacturing of manufacturing companies while the remaining 63.98% was due to other variables not captured in this study.

Growth was found to be positively correlated with changes in material costs. This implies that an increase in direct material by 1% will cause an increase in growth by 0.0149. Also, the t statistics computed was 2.83, thus, our alternate hypothesis which predicts a significant relationship between changes in material costs and changes in turnover is accepted.

Results also showed an insignificant relationship between changes in administrative overheads and growth of manufacturing companies in Nigeria. This means that an increase or decrease in cost of administrative overheads does not affect the growth of manufacturing companies in Nigeria. Thus, we accept the null hypothesis that there is no significant relationship between changes in administrative overheads and growth of manufacturing companies in Nigeria. This was supported by a t statistics value of 0.20.

Also, changes in total assets was found to be positively correlated with growth of manufacturing companies. This means that a one unit increase in changes in total assets will lead to a 0.5763 increase in growth of manufacturing companies in Nigeria.

6. CONCLUSIONS

This study was carried out mainly to investigate whether there exist a relationship between cost reduction strategies and the growth of manufacturing companies in Nigeria using data of 40 manufacturing companies quoted in Nigerian stock exchange for the period of 2012-2016. The study relied on secondary data extracted from the annual reports of the selected companies. Changes in direct material costs, changes in labour costs and changes in administrative overheads were considered as independent variables while growth (changes in turover) was taken as dependent variable. The result indicates a positive significant relationship between changes in material costs, changes in total assets and growth of manufacturing companies. However, it was discovered that there is no significant relationship between changes in administrative overheads and growth of manufacturing companies. It is therefore recommended that manufacturing companies adopt value analysis to reduce and eliminate unnecessary costs associated with products. Also, businesses should conduct regular analysis of its business process to identify and eliminate costs.

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