Effect of Cost Control and Cost Reduction on Profitability of Manufacturing Firms in Nigeria: A Case of Nestle Nigeria Plc.

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ABSTRACT

This study examines how cost management and reduction affect Nigerian manufacturing companies' profitability. The 78 manufacturing companies registered on the Nigerian Stock Exchange make up the study's population, and a sample of one of these companies was used for the study throughout a ten-year period (2012–2021). Data for the project was gathered from the chosen company's audited financial filings. Multiple regression was used to assess the data that had been collected. The analysis's findings showed that administrative costs have a big impact on profitability. However, Nestle Nig. Plc's profitability is adversely and negligibly impacted by both finance expenses and fluctuations in the cost of materials. The study came to the conclusion that Nestle Nigeria Plc's profitability is significantly impacted by cost control and cost reduction. The study advises the proper adoption of cost control and reduction techniques that won't result in company failure in the future. It also suggests that these techniques be properly evaluated, constantly monitored, and checked to make sure they serve the intended purpose.

Keywords: cost control, cost reduction, cost of material, admin cost, profitability, finance cost

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, the cost must be reduced to the minimum level possible. Cost reduction has become a vital tool for companies to constantly stay ahead of the increased competition in the business environment (Alireza & Mahdi, 2012). The ultimate goal of every firm is profit maximization and cost minimization through proper cost management, to maximize shareholder wealth (Christian, 2019). The profit motive behind business income is universal to most business entities. The crippling Nigerian economy had brought an adverse effect on the financial capability of most manufacturing firms, making it difficult for the firms to maximize profitability. Most of the firms that are into the household products industry had been taken out of the markets and operations as a result of the high cost of producing their products (Oyedokun, Tomomewo & Owolabi, 2019).

The profitability ratios of the company, such as return on capital employed (ROCE), net profit margin (NPM), earnings per share (EPS), etc., represent the financial strength of the business in monetary terms. Financial performance measurements, according to Okabe, Ofurum, and Darlington (2019), are essential to the operation of economic units since without them, no decisions can be taken. Since the return on capital employed (ROCE) indicates the proportion of a company's net operating profit to its capital employed, financial performance is one of the crucial performance indicators for economic units. By expressing an organization's operating profit as a proportion of its capital employed, it can demonstrate its profitability (Irfanullah, 2019).

To succeed and improve their financial performance, businesses must have a solid human resource strategy and maintain a competitive edge. The manufacturing companies in Nigeria must employ cost-reduction and cost-control techniques that would increase output, productivity, and profitability while preserving product quality in order to survive and preserve the stated competitive advantage in the current market (Cheng & Lin, 2018). According to Nwatu and Idoko (2020), cutting operating expenses will directly affect profitability. The Nigerian manufacturing industry has to do a better job of directing precious resources away from underperforming regions and toward its strongest sectors with the most room for expansion. The quality and worth of a company's resources as well as its ability to reduce costs are key factors in determining its success, regardless of how big or small it is (Henrich, Little, Martínez, Shah, & Sichel, 2019).
Any corporate organization's only goal is to increase its capacity for growth by generating income and reducing costs. The majority of business owners think that growing sales is the best strategy for turning a profit, but this creates a new issue. Nigeria's manufacturing sector currently faces a number of issues that require urgent attention. The majority of imported goods, which are less expensive than those made in Nigeria, have posed a significant threat to the country's ability to sell goods (Adigbole, Adebayo, & Osemene, 2020). The study by Nwatu et al. (2020) confirmed that manufacturing firms have witnessed unexpectedly high operating costs with the attendant reduction in profitability as a result of high operating costs associated with the maintenance and administration of a day to day business activities. Adeleke (2014) submitted that quite a several manufacturing companies in Nigeria have ceased to operate, whereas the bigger companies have acquired many other companies and at best, merged with other bigger companies. Some have relocated their operational base to neighboring countries (Abdul & Siaka, 2015).

However, a review of extant literature revealed so many inconsistence results on cost control and cost reduction on the profitability of firms within and outside the Nigerian economy. In some studies, the periods covered are shorter compared to the current study while some studies were conducted in a different country with either a larger or smaller economy compared to that of Nigeria thereby making it impossible to generalize the findings of such studies from those environments because of the differences that exist in terms of political, economic and cultural. However, this study intends to fill these gaps. It is premised on the aforementioned problem that the main objective of the study is to investigate the effect of cost control and cost reduction on the profitability of manufacturing firms in Nigeria with particular emphasis on Nestle Nigeria Plc.

2. Literature Review

Conceptual Issues

Every business' success hinges on its capacity to generate profits over time. Sales and cost are two different aspects that affect profit. The profit increases as the difference between these two parameters widens (Temitayo & Adegbe, 2020). According to Erasmus (2021), profitability is a performance metric that places an emphasis on a corporate entity's whole operations. Lacey (1997) defined profitability as the difference between revenue and cost. It is, in other words, the process of deducting costs from revenues. According to Nooteboom (2016), profitability includes all income received from all sources, including sales, commissions, services revenue, and interest. According to Monica (2014), profitability can be defined as an investment's capacity to generate a profit from its utilization.

Cost control is the process of maintaining expenses at the level intended for them to be at or at the level anticipated for them utilizing robust budgeting and budgetary management systems, according to Oluwayemisi, Elkanah, Ademola, Mathew, and Mamidu (2022). According to Parker (2018), cost management is the use of appropriate accounting techniques to process an entity's historical and projected economic data in order to help management create a plan for reasonable economic goals and make logical decisions to reach these goals. Johnson (2018) asserts that cost management is a strategy or idea required for efficient planning, decision-making among potential business activities, and managing via the assessment and interpretation of performance. Akeem (2017) defined cost control as a process of establishing a standard and maintaining performance according to the standard. He further stated that it is more concerned with an element of marginal costs which involves the determination of unit cost and measurement, costs are kept within acceptable limits. Anthony, et al (2005) see cost control as cost management or cost containment which has to do with a broad set of cost accounting methods and management techniques having the goal of improving business cost efficiency, by reducing costs or at least restricting their rate of growth. Lawyer (2014) claims that cost control is a comprehensive collection of accounting procedures and management techniques that increase corporate effectiveness by lowering costs or, at the very least, limiting the rate of cost rise.

Cost reduction, according to the Chartered Institute of Management Accountants (CIMA), London, is the accomplishment of a real and long-lasting decrease in the unit cost of goods produced or services provided, without compromising the ability of the product to fulfill its intended function. Cost reduction, according to Groth and Kinney (1994), is the act of lowering current fixed expenses and variable costs by comparing total costs to income earned, which will either directly or indirectly affect an organization's financial performance. According to Nwatu et al. (2020), a continuous process of cost and function analysis for the further economy in the application of elements of production is what makes cost reduction a planned positive method to lower expenditure and a corrective function. Cost reduction, according to John (2017), is the practice of reducing waste and streamlining procedures in order to lower expenses and/or the cost of goods sold. Cost reduction, according to Nwatu et al. (2020), is the method utilized by businesses to lower their expenses and boost earnings. They continued by saying that manufacturing companies who are concerned with how organization items move from one stage of processing to another in such a way that bank fees and travel expenses are minimized consider cost reduction to be a crucial component.

Review of Related Empirical Studies

Oluwayemisi, et al. (2022) investigated the relationship between financial performance and cost control in a sample of listed manufacturing companies in Nigeria. The information for the 10 chosen companies came from the audited annual financial reports of the sampled companies from 2011 to 2020. Using the panel regression model, data were examined. The study's findings showed that selling and distribution costs had a negligibly
favorable impact on financial performance while having a negligibly negative impact on the administrative financial performance of the sampled organizations. The study came to the conclusion that cost containment has an impact on the financial health of Nigerian manufacturing companies in both good and negative ways. The study recommended that manufacturing firms should strive to maintain optimal control of administrative costs as any attempt to employ a positive change agent for a specific financial performance measure can lead to an unfavorable effect in another measure.

Erasmus (2021) investigated the effect of cost management practice on the financial performance of listed Deposit Money Banks in Nigeria. The population of the study consists of 15 listed deposit money banks in Nigeria. The study adopts judgmental sampling techniques to select 10 banks as the sample size for the study. Primary data was obtained through a structured designed questionnaire while the secondary data was obtained from the annual financial report of listed DMBs in Nigeria from 2010-2018. The Ordinary Least Square Regression was used for data analysis. The finding shows that activity-based costing had a significant impact on profit before tax. Again, the result shows that target costing had a negative impact on profit before tax. The findings also revealed that standard costing had a positive significant impact on profit before tax. The study concluded that cost management practice influences the financial performance of listed DMBs in Nigeria. The study recommended that banks should ensure routine training, and seminars for their staff on new and modern cost management practices to enhance effective cost control and cost reduction leading to financial performance. Management should also adopt cost management practices that focus on cost control and cost reduction. Bank's policy on cost management practice should be formulated with an emphasis on cost control and cost reduction.

Mamidu and Akinola (2021) studied the effect of cost management on the performance of manufacturing companies in Nigeria. Secondary data sourced from the financial reports of the firms was used to analyze the situation. The data were tested using the Ordinary Least Square Linear Regression model. The result shows that equity is significantly related to the profitability of the firms while total asset was positively and significantly related to profitability. Cost management on the other hand has a significant impact on profits. The study concluded that cost management has a significant influence on profitability. The study then recommended that company policymakers and transaction advisors should be keen on making cost management policies to be applied since they greatly impact the financial performance of the company.

Muse (2021) assesses the relationship between cost management and the financial performance of three telecommunication companies in Turkey, Egypt, and Saudi Arabia. The study used the multiple regression model to analyze the data. The analysis reveals that the cost management of Egypt's telecommunication is insignificant to the financial performance of the firms for the period while Saudi Arabia telecom company's cost management was significant in financial performance. The study concluded that Turkey Telecom Company's cost management is poorly oriented. It was recommended that there is a need for the development of a scale for the effective financial performance of the company to keep the company's liabilities under control, the management should pay off the creditors quickly and reduce the repayment terms on the loans. Moreover, Egypt Telecom Company needs to venture into the financial performance of the company by developing avenues necessary for the development of the financial performance such as improving the business attractiveness and expanding its customer base.

Ayorinde (2021) looked at how cost containment affected pharmaceutical companies' financial results in Nigeria from 2010 to 2019. In this investigation, secondary data were employed. The six pharmaceutical companies that are publicly traded in Nigeria were used as secondary sources of data. The effects of cost containment on the financial performance of pharmaceutical enterprises in Nigeria were assessed using panel regression analysis. The findings showed that cost control significantly affects the financial success of pharmaceutical companies in Nigeria. The study suggested that in order to operate effectively within the company and improve performance, the management of the firms should use contemporary strategic cost management strategies.

Nwatu and Idoko (2020) assess the profitability and declining operating expenses of manufacturing companies in South-East Nigeria. There were 3866 staff members in total. Using a stratified sample technique, the population of the study was selected from the groups being investigated. By applying Freund and William's statistical formula, a sample size of 350 was determined to be sufficient. Personal interviews and the distribution of a questionnaire served as the main sources. Using the Pearson correlation coefficient, the data were examined. The study's conclusions show that expansion and bank charges have a big impact on profitability. The value of the product per unit and travel costs are also closely tied to profitability. Additionally, sales revenue and costs have a big impact on profitability. The study came to the conclusion that bank fees, travel costs, and selling costs were significantly correlated with the expansion, value of output per unit, and income of the manufacturing enterprises in South East Nigeria. The report suggested that manufacturing companies team up with banks to bring their charges to competitive prices.

In 2020, Yushang, Chipwere, and Adu-Gyamfi looked on how cost management affected the financial performance of manufacturing companies in Zimbabwe. A descriptive research design was used for the investigation. The financial statements of a particular manufacturing firm were used to collect panel data for the study, which covered the four (4) years 2014–2018. For the data analysis in the study, pooled regression analysis was used. The study revealed that the cost of inventories has an insignificant positive effect on return on equity. The cost of labor will increase performance but could be detrimental if the money spent on labor is taking a larger percentage of the overall profit component of the organization. The study recommended that organizations should ensure well-accountable cash or gains are spent on the labor component to improve the return on equity for their major shareholders. Again, organizations should spend more on the sales component of the operations; mindfully, prudence should be applied knowing fully well that money or gain spent in this area will be re-coped back through turnover.
Temitayo and Adegbie's (2020) investigation into the impact of cost management on the financial results of Nigerian consumer products companies with public stock exchange listings. The study's sample included 27 companies that are listed on the Nigeria Stock Exchange. For a time span of ten years (2009-2018), a sample frame of ten businesses was chosen. The companies' audited financial statements were used to gather the data. For its data analysis, the study used both descriptive and inferential statistics. The outcome showed that cost control had a minimal impact on net profit margin. According to the study's findings, cost management has a minimal impact on financial performance. According to the study's conclusions, effective management, cost estimation, and cost control are crucial.

Akintoye, Oyedokun, Tomomewo, and Owolabi (2019) investigated how cost control affected the profitability of a few Nigerian manufacturing firms. The 78 manufacturing firms registered on the Nigeria Stock Exchange made up the study's sample. Five companies were chosen from a sample frame of 23 consumer goods companies that were listed on stock exchanges and were taken into consideration for a decade (2005-2017). The study used a technique known as judgemental sampling. Data were taken from the financial statement that had been audited, and the accounts had already been approved by the relevant regulatory bodies. Descriptive and inferential (regression) statistics were used in the investigation. Profitability was discovered to have a considerable inverse connection with the cost of raw materials (CORM). According to the study's findings, cost containment significantly increased manufacturing enterprises' profitability in Nigeria throughout the time period under consideration. Therefore, it was advised that proper management and alternate raw material sources be used.

Akayisenga and Mulyungi (2018) investigate how Rwanda's commercial banks perform in light of cost control. 305 Bank of Kigali employees from Kigali made up the study's sample. A sample size of 75 respondents was chosen for this study from a total population of 305 people. Descriptive and inferential statistics were utilized in the investigation. Based on the data gathered from the research, the researcher came to two significant conclusions: first, that operational cost control and the performance of the Bank of Kigali are significantly positively correlated; second, that administrative costs and the performance of the Bank of Kigali are significantly positively correlated. The study made the recommendation that the management of the Bank of Kigali should strengthen the production cost control measures because ineffective production and operation cost control may adversely affect the Bank of Kigali's financial performance by declining or reducing the bank's profits.

Egbunike and Adeniyi (2017) investigate the impact of cost-cutting tactics on the financial performance of Nigerian banks. Three banks were chosen for the study's sample size out of a population of ten banks using a purposive sampling technique. The Nigerian Stock Exchange Fact-book, the sample population's Annual Report and Accounts, and other sources were used to compile the study's data. Additionally, the study performed linear regression analysis to estimate the model parameter. The results showed a bad correlation between personnel decrease, staff compensation reduction, and profitability. According to the study, banks should lower employee salaries rather than fire them. Afterward, a pay raise can be implemented if financial performance is getting better.

To support the investigation, the Efficiency Structure Theory (ES) was employed. According to the ES theory, businesses make a lot of money because they are more efficient than other businesses. Within the ES, there are two separate approaches: the scale-efficiency method and the X-efficiency approach. The X-efficiency approach claims that because more efficient businesses have lower costs, they are more profitable. The market concentration of such enterprises may increase, but there is no direct correlation between market concentration and profitability (Athanasoglou, Denis, & Staikouras, 2006). Instead, these firms tend to gain larger market shares. The scaling approach emphasizes economies of scale rather than differences in management or production technology. Larger firms can obtain lower unit costs and higher profits through economies of scale. This enables large firms to acquire market share, which may manifest in higher concentration and then profitability.

3. Methodology

This study employed an ex-post facto research design using panel data analyses of financial information extracted from published financial statements and accounts of manufacturing firms on the Nigerian Stock Exchange for a period of Ten (10) years (2012-2021). One (Nestle Nig. Plc.) firm was purposively sampled out of the 78 listed manufacturing companies in Nigerian Stock Exchange (NSE). The data was collected via secondary sources from the audit financial report of the firm. Multiple regression analysis was adopted in analyzing the data of the study. The regression analysis is appropriate because it measures, explains, and predicts the effect and connection between the variables. The dependent variable is profitability (measured as profit before tax divided by total assets) while the independent variable is cost control proxy by administrative cost (measured as a log of total administrative expenses, Akindele, et al. 2022, and Temitayo, et al. 2020) and finance cost (measured as log of total finance cost, Akindele, et al. 2022, and Temitayo, et al. 2020) while cost reduction is proxy by a change in the cost of raw material (measured as Δ in cost of raw material Egbide, et al., 2019). The model is mathematically represented as:

\[ \text{PRT}_t = \beta_0 + \beta_1 \text{ADM}_C + \beta_2 \text{FC}_t + \beta_3 \text{CMC}_C + \epsilon_t \]

Where;

\[ \text{PRT} = \text{Profitability} \]
ADMC = Administrative Cost
FC = Finance Cost
CMC = Change in Material Cost
β0 = Constant
β1 – β3 = Coefficient of the Independent Variables
ε = Error Term
i = Firm
t = Period

4. Data Presentation and Analysis

This section presents and discussed the results of the data analysis starting with the descriptive statistics, correlation matrix, and regression result.

4.1. Descriptive Statistics

The descriptive statistics are presented in Table 1 where the minimum, maximum, mean, and standard deviation of the variables employed are described.

Table 1:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRT</td>
<td>0.1271</td>
<td>0.3681</td>
<td>0.2626</td>
<td>0.0746</td>
</tr>
<tr>
<td>ADMC</td>
<td>15.4856</td>
<td>16.2813</td>
<td>15.9523</td>
<td>0.2615</td>
</tr>
<tr>
<td>FC</td>
<td>14.4299</td>
<td>16.8536</td>
<td>15.4294</td>
<td>0.8702</td>
</tr>
<tr>
<td>CMC</td>
<td>12.7473</td>
<td>16.4091</td>
<td>14.4488</td>
<td>1.2801</td>
</tr>
</tbody>
</table>

Source: STATA Output (2022)

The average value of profitability is 26.26 (0.2626) percent for the selected firm. The maximum profit made by the selected firm for the period was about N36.81 million while the minimum profit for the period was about N12.71 million. The standard deviation coefficient value of 0.0746 compared to the mean value of 0.3681 suggests a low level of variability of profitability of the firm. The average value of administrative cost (ADMC) is N15.95 million and a min and max value of 15.4856 and 16.8635 respectively. For finance cost (FC) the mean value for the period is N15.43 million while the minimum and maximum profit recorded for the period by the firm were N14.43 million and N16.84 million respectively. Finally, the average change in the cost of material for the period was N14.45 million while the minimum and maximum profit realized were about N12.75 million and N16.41 million respectively.

4.2. Correlation Matrix

Table 2 presents the correlation matrix of the study where the degree of association between the dependent and independent variables is determined.

Table 2:

<table>
<thead>
<tr>
<th></th>
<th>PRT</th>
<th>ADMC</th>
<th>FC</th>
<th>CMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRT</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADMC</td>
<td>0.1379</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FC</td>
<td>-0.5795</td>
<td>0.4604</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>CMC</td>
<td>-0.2754</td>
<td>0.8289*</td>
<td>0.6306</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Source: STATA Output (2022)
A coefficient value of 0.1379 and a p-value of 0.7040 in the table above indicate that ADMC and PRT have a weakly positive but negligible correlation. A coefficient value of -0.5795 and a p-value of 0.0782 on the variable FC and PRT revealed a strong negative but significant connection between the variables. A coefficient value of -0.2754 and a p-value of 0.4411, respectively, for the variables CMC and PRT, demonstrated a mild negative and insignificant connection between the variables.

4.3. Regression Analysis

Table 3:

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t. Value</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-3.1371</td>
<td>1.6384</td>
<td>-1.91</td>
<td>0.104</td>
</tr>
<tr>
<td>ADMC</td>
<td>0.3019</td>
<td>0.1168</td>
<td>2.59</td>
<td>0.041</td>
</tr>
<tr>
<td>FC</td>
<td>-0.0484</td>
<td>0.0253</td>
<td>-1.91</td>
<td>0.104</td>
</tr>
<tr>
<td>CMC</td>
<td>-0.0465</td>
<td>0.0273</td>
<td>-1.79</td>
<td>0.140</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td></td>
<td></td>
<td>0.6922</td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td></td>
<td></td>
<td></td>
<td>0.5384</td>
</tr>
<tr>
<td>Prob. F.</td>
<td></td>
<td></td>
<td></td>
<td>0.0559</td>
</tr>
</tbody>
</table>

Source: STATA Output (2022)

In Table 3, it was reported that the estimates from the regression that was first carried out by regressing the relationship between cost control and cost reduction variables against profitability show a probability statistics value of 0.0559 which is significant at a 10% level of significance indicating that the model is fit. Additionally, the R-square ($R^2$) value of 0.6922 implies that independent variables jointly influence the profitability of Nestle Nig. Plc. up to 69.22% while the remaining 30.78% are explained by other variables not captured in this model.

4.4. Discussion of Findings

The estimated parameters especially that of administrative cost as indicated in table 3 above are seen to be positive and statistically significant with the profitability of Nestle Nig. Plc. as indicated by a coefficient value of 0.3019 and a p-value of 0.041 respectively. This means that as admin expenses of the firm increase by N1 it will lead to an increase in the profitability of the firm by N30.19 million. The finding associated with this variable is tandem with the studies of Mamidu and Akinola (2021); Ayorinde (2021); Nwatu and Idoko (2020) and Akayisenga and Mulyungi (2018). While the studies of Ohuwayemisi, et al (2022) and Muse (2021) shared a contradicting result with the current study.

Conversely, finance cost shows a negative and statistically insignificant influence on the profitability of Nestle Nig. Plc. for the period. The result revealed a coefficient value of -0.0484 and a p-value of 0.104. This implies that for every N1 increase in finance cost, the profitability of Nestle Nig. Plc. will decrease by N4.84 million. The finding is not in agreement with the studies of Mamidu and Akinola (2021) and Ayorinde (2021).

Similarly, change in the cost of material as a variable of cost reduction was found to be negative and statistically insignificant with the profitability of Nestle Nig. Plc. as indicated by a coefficient value of -0.0465 and p-value of 0.140 respectively. This implies that for every N1 change in the cost of material, it will lead to an N4.65 million decrease in the profitability of Nestle Nig. Plc. The study also agreed with the studies of Akintoye, et al. (2019); Yushang, et al. (2020), and Muse (2021). The study is not in agreement with the study of Erasmus (2021).

5. Conclusion and Recommendations

The basis for this study's justification is how crucial cost control and cost reduction are for manufacturing companies to achieve profitability. In particular, Nestle Nigerian Plc was the focus of this study's analysis of the impact of cost control and cost reduction on listed manufacturing enterprises in Nigeria. The selected firm's audited financial reports for the 10 years between 2012 and 2021 were the primary source of the data. In order to study the relationship between the variables empirically, multiple regression was used. The ordinary least square (OLS) model's outcome demonstrated that admin cost was favorable and had a big impact on profitability. However, it was found that there was a weak and negative correlation between the profitability of the chosen firm in Nigeria and the cost of borrowing and the change in material costs. The analysis comes to the conclusion that Nestle Nigerian Plc's profitability is affected by cost control and cost reduction. Therefore, the study suggests that appropriate cost control and reduction techniques be adopted that won't result in company failure in the future. It also suggests that these techniques be properly evaluated, monitored, and checked constantly to make sure they serve the intended purpose.

References


