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Cost Management Practice Techniques and Performance of Quoted Fast-Moving Consumer Goods Companies in Nigeria

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Abstract: This study aimed to examine the effect of cost management practice techniques on the performance of fast-moving consumer goods in Nigeria. The research method used for this study was an ex-post-facto research design with a population of 35 listed FMCG companies in Nigeria. Quantitative data were sought from the twelve (12) years annual published audited financial report of the selected companies from 2009 - 2020. Stratified and purposive sampling techniques were used to determine Nigeria's top five (5) traded FMCG companies in Nigeria Stock Exchange (NSE). The statistical method used was descriptive, Generalized Linear Model (GLM) regression statistics and correlational analysis to test the research hypotheses. The statistical tool employed was econometrics view (E-view) software to analyse the data. The findings of the study revealed the coefficient estimates that budgetary control ($r = 675680.4$; $p = 0.0029 < 0.05$), activity-based costing ($r = 4.166310$; $p = 0.0000 < 0.05$) and life-cycle costing ($r = 806197.9$; $p = 0.0000 < 0.05$) are statistically significant at 0.05 levels while the standard costing ($r = 25890.39$; $p = 0.7433 > 0.05$) variable is positively related but statistically insignificant with the performance of FMCG in Nigeria. Thus, the correlational result depicts that budgetary control and standard costing techniques are negatively correlated, while activity-based costing and life-cycle costing are positively correlated. Though only the standard costing hypothesis was accepted, the other hypotheses were rejected. The study concluded that good costing techniques could be seen in identifying, measuring, and quantifying effective cost management practices on FMCG firm performance. Based on these conclusions, it was recommended that other research can be done in other economic sectors to determine how cost management practices affect the performance of FMCG companies in Nigeria.

Keywords: Cost; Management Practices; Costing Techniques and Performance

JEL Classification: G11; G29; G31; M11; M41

1. Introduction

Effective utilisation of the resource is required in today's competitive business environments. Thus, emphasise the importance of cost management practice techniques. It is widely acknowledged how effective cost management practice techniques are used. Smith (2017) pointed out that effective cost-management practice techniques are crucial to an organisation's success. However, the cost management practice technique is one of Nigeria's challenges posed to fast-moving consumer goods

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(FMCG). The applications of these techniques are yet to be determined. To calculate the price of goods and services, costs must be properly classified and divided. Though, relevant information must be adjusted and provided so that managers and owners of profit-making units can use it as guidance when managing the operation of their businesses.

Parker (2018) and Erasmus (2021) proclaimed that cost management practice techniques refer to the appropriate use of accounting techniques to practice historical and projected economic information that helps an entity to manage and create workable financial plans and make cognizant resolutions to reach these goals. David (2017) found that Nigeria's inability to effectively utilise and practice crucial costing techniques to estimate and project imminent performance is the main cause of fast-moving consumer goods failure. According to Johnson (2018), effective planning decision-making, choosing between possible business actions, controlling through performance evaluation, and interpretation all require the use of techniques and concepts for cost management.

This supports a manager's ability to thrive in a hostile environment. Managing a company's product or service cost, quality, and performance in the modern economy is essential (Olayinka, 2016). FMCG companies always look for goods and services with higher performance, quality standards, and affordable prices. The business must also give shareholders the required rate of return on their investment. Cost, therefore, consequently residual for producing goods or providing services within a reasonable price range is difficult. It was advised that cost management practice techniques be an ongoing and continuous improvement activity within the organisation to enhance performance and increase profitability for the survival of the companies. According to Ogbuu (2016), there needs to be more substantiation to demonstrate when and how performance measures organisational performance. There are many ways to look at a company's performance. The primary focus of this study was determined to be the financial aspect of a company's performance. Performance can be viewed and assessed in various ways, including liquidity and turnover as a correlate to cost management practice technique. These metrics assess a company's capacity to fascinate financial obligations without impeding regular business operations. The ability to analyse performance through the prism of profitability is possible. Therefore, the study is intended to ascertain how the cost management practice techniques influence the performance of listed fast-moving consumer goods in Nigeria. The following hypotheses will guide the study:

a. budgetary control has no significant effect on the performance of FMCG companies;

b. activities-based costing does not have a significant influence on the performance of FMCG companies;

c. standard costing has no significant effect on the performance of FMCG companies;

d. life-cycle costing has no significant effect on the performance of FMCG companies.

2. Literature Review

One of the cost management practice techniques for projecting a financial plan and regularly assessing actual outcomes against the anticipated plans to determine which needs to be adjusted to stay on track is budgetary control. This process is necessary to manage finances and accomplish goals. The public and private sectors use budgetary control as a key tool for organisations to monitor their financial strength (Dunk, 2009). To provide insightful and accurate data for an organisation's decision, activity-based costing (ABC) is required to measure the effectiveness of cost activities, allocating cost to units

according to the benefits gained from indirect operations like ordering, setup, and quality control. A company's primary activities are identified, costs are allocated to cost units or centres for each activity, cost drivers are identified for each major activity, and activity costs are allocated to products (Erasmus, 2021). A cost-management technique called target costing helps to reduce a product's overall cost throughout its life cycle (Jalaee, 2012). It involves manipulating equations to create costs based on prices, designing the product backwards, and then designing the production process. When developing a product that meets customer needs, the costing techniques are established in determining the price and profit accrued to the products, achieved through value engineering, and compared to the achieved costs. The company establishes the costing techniques to determine the products' market price and subtracts the target profit margin from the target price to arrive at the target cost.

A method of accounting known as "standard costing" employs predetermined costs for each element of cost layout, materials, and overhead for each line of product produced or service rendered. Marginal or absorption costing is two ways to look at standard costing techniques (Egbunike, 2014). There are differences between standard and actual costs due to several factors. These elements impact the cost, the volume of materials consumed, the wage rate, labour productivity, and overheads. According to the performance measurement theory, employees can raise a company's value by boosting its future cash flows, accelerating their receipt, or making them more certain or less risky. Since performance reflects what managers believe to be financial performance, it may still be justified even if it is a composite of different metrics like accounting profits, productivity, and cash flow. Profit or value-added, sales, fees, budgets, expenses, spending, stock market indicators (like share price), and autonomy define performance.

3. Empirical Review

Erasmus (2021) investigated the cost management practices and the financial performance of listed deposit money banks in Nigeria. He found that activity-based costing significantly impacted profit before tax. Thus, profit before taxes has suffered as a result of target costing. Profit before tax was positively and significantly impacted by standard costing. The use of cost management strategies may have an impact on financial performance. When Gordon and Sylvester (1999) examined the performance of ten ABC users, they found that it was comparable to that of matched size. These industry-controlled competitors did not use activity-based costing. Although the day of the announcement saw abnormal returns for ABC user firms, it was discovered that these firms did not statistically differ from their competitors. Therefore, if activity-based costing does not create firm value, they question its adoption.

Gilaubicas and Kanapickiene (2015) and Ismail, Isa, and Mia (2018) proclaimed that manufacturing companies employ more strategic cost management tools to deal with heightened competition. They also claimed that market competition is one of the external forces pushing businesses to implement strategic cost management techniques. In the Sewell group, based in Hull, United Kingdom, Williams (2016) identified success factors in construction projects. The data were analysed using mapping diagrams to show the relationships between the causality chains in an exploratory research design. The study shows that system thinking is the only factor determining whether a project succeeds. Tesfaye's (2016) study, the performance of a construction project in Addis Ababa was compared to the effectiveness of the project management process. Data were collected using a survey research method, and descriptive statistics were used to analyse the results. The findings indicated that the main

obstacles to project success were time, money, quality, and communication.

Adigbole, Adebayo and Osemene (2020) investigated how strategic cost management practices impact organisational performance in the Nigerian manufacturing sector. Primary data are gathered using a survey research design, and the Partial Least Squares Structural Equation Modeling (PLS-SEM) method is used to analyse them. According to the study, strategic cost management techniques enhance organisational performance. The performance of Jordanian-listed companies is examined by Alsoboa, Al-Ghazzani, and Joudeh (2015) to some strategic costing techniques. The Life-Cycle Costing method does not significantly affect the performance of the firms under study. However, the result shows how strategic cost management techniques enhance firm performance.

4. Research and Methods

The research method used for this study was an ex-post-facto research design with a population of 35 listed FMCG companies in Nigeria (NSE, 2022). Quantitative data were sought from the twelve (12) years of annual published audited financial reports of the selected companies between 2009 - 2020. Stratified and purposive sampling techniques were used to select Nigeria's top five (5) traded FMCG companies. The statistical method used was descriptive, Generalized Linear Model (GLM) regression statistics and correlation analysis to test the research hypotheses. The statistical tool employed was econometrics view (E-view) 10.0 version software to analyse the data. The regression model used by Aribaba and Ahmodu (2022) was adopted to test the null hypotheses formulated for this study. The model stated thus:

$$Y = \beta 0 + \beta x_1 + \beta x_2 + \beta x_3 + \Sigma_{it} \quad (1)$$

The study expands from the model in the following econometric form:

$$PER = \beta 0 + \beta(BUC_{it}) + \beta(ABC_{it}) + \beta(SCO_{it}) + \beta(LCC_{it}) + \Sigma_{it} \quad (2)$$

Where:

PER = Performance (as a proxy for a profit before tax)

BUC = Budgetary Control

ABC = Activity-Based Costing

SCO = Standard Costing

LCC = Life-Cycle Costing

$\beta 0$ = intercept

β_1 - $_4$ = coefficients

Σ_{it} = Stochastic error term

The apriori expectation for the sign: $\beta 1>0:\beta 2>0:\beta 3>0:\beta 4>0:$ denotes the formulated null hypotheses.

4.1. Descriptive Statistics

Table 1. Descriptive Statistics of the Variables

	PBT	BUC	ABC	SCO	LCC
Mean	3715630.	1.250000	516126.0	3.600000	2.850000
Median	3417482.	1.000000	508569.5	4.000000	3.000000
Maximum	7146610.	3.000000	941886.0	6.000000	5.000000
Minimum	1794348.	1.000000	220775.0	1.000000	1.000000
Std. Dev.	1602943.	0.540715	208381.7	1.669264	1.204863
Skewness	0.554015	2.067728	0.216627	-0.407452	-0.237020
Kurtosis	2.271463	6.285444	2.163942	1.876392	1.969927
Jarque-Bera	4.396245	69.74035	2.216756	4.816407	3.214413
Probability	0.111011	0.000000	0.330094	0.089977	0.200447
Sum	2.23E+08	75.00000	30967557	216.0000	171.0000
Sum Sq. Dev.	1.52E+14	17.25000	2.56E+12	164.4000	85.65000
Observations	60	60	60	60	60

Source: Author Computation (2023)

The variables were described in the table of descriptive statistics. The performance of FMCG companies in Nigeria had a mean and a standard deviation of 3715630 and 1602943, respectively. This demonstrated that the standard deviation was centred on the mean because it was smaller than the latter. The mean and standard deviation of the cost management practice technique variables are BUC: 1.250000 and 0.540715; ABC: 516126.0 and 208381.7; SCO: 3.600000 and 1.669264; and LCC: 2.850000 and 1.204863, respectively. Thus, the standard deviation is absorbed around the mean because it is less than the mean data, which has clustered around the mean data as a result of these mean values and standard deviations. This implies that the data set is closely related to the average, which accounts for how complex the data is to interpret around the mean. Except for the value of standard costing and life-cycle costing, which explains the symmetry of the data, all other variables are positively skewed. According to Jarque-Bera, the variables follow a normal distribution. The data set with a positive kurtosis has a high peak relatively close to the mean.

4.2. Hypotheses Testing

Table 2. Generalised Linear Regression Model

Dependent Variable: PBT (Performance)
Method: Generalized Linear Model (Newton-Raphson / Marquardt steps)
Date: 02/21/23 Time: 16:45
Sample: 1 60
Included observations: 60
Family: Normal
Link: Identity
Dispersion computed using Pearson Chi-Square
Convergence achieved after 1 iteration
Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-1670181.	724438.4	-2.305484	0.0211
BUC	675680.4	227274.0	2.972977	0.0029
ABC	4.166310	0.997274	4.177700	0.0000
SCO	25890.39	79046.53	0.327534	0.7433
LCC	806197.9	152404.1	5.289870	0.0000

Mean dependent var	3715630.	S.D. dependent var	1602943.
Sum squared resid	2.27E+13	Log likelihood	-885.0155
Akaike info criterion	29.66718	Schwarz criterion	29.84171
Hannan-Quinn criter.	29.73545	Deviance	2.27E+13
Deviance statistic	4.13E+11	Restr. deviance	1.52E+14
LR statistic	312.3326	Prob(LR statistic)	0.000000
Pearson SSR	2.27E+13	Pearson statistic	4.13E+11
Dispersion	4.13E+11		

Source: Author Computation (2023)

In particular, the choice of algorithm (Newton-Raphson), distribution family (Normal), and link function (identity), as well as the dispersion estimator, coefficient covariance estimator, and estimation status, are all displayed in the generalised linear regression model table. It was observed that the coefficient covariance is calculated using the inverse of the observed Hessian, while the dispersion estimator is based on the Pearson x^2 statistic. The coefficient estimates indicate that BUC (r = 675680.4; p = 0.0029 < 0.05), ABC (r = 4.166310; p = 0.0000 < 0.05), and LCC (r = 806197.9; p = 0.0000 < 0.05) are statistically significant at conventional levels and are positively correlated with FMCG performance in Nigeria. The SCO (r = 25890.39; p = 0.7433 > 0.05) variable is positively related but statistically insignificant to the performance of FMCG in Nigeria. The output's bottom section lists various descriptive statistics. As a result, some well-known statistics have been implemented; E-Views reports the deviance, the deviance statistic (deviance divided by the degrees of freedom), the restricted deviance (deviance for the model with only a constant), and the corresponding L.R. test statistic and probability. According to the test, the BUC, ABC, SCO, and LCC variables are all significantly different at about the 0% level. The estimated dispersion, as well as the sum-of-squared Pearson residuals, are also shown.

4.3. Correlation Analysis

Table 3. Correlation Matrix of the Variables

	PBT	**BUC**	**ABC**	**SCO**	**LCC**
PBT	1.0000	-0.5405	0.8533	-0.2828	0.8564
BUC	-0.5405	1.0000	-0.6137	0.0563	-0.7219
ABC	0.8533	-0.6137	1.0000	-0.5335	0.7688
SCO	-0.2828	0.0563	-0.5335	1.0000	-0.0556
LCC	0.8564	-0.7219	0.7688	-0.0556	1.0000

Source: Author Computation (2023)

The correlation matrix of the variables displays, at a 5% significance level, the correlation between each pair of independent and dependent variables (BUC, ABC, SCO, and LCC) in the regression model. This sheds light on the relative sizes of the independent variable pairs. The correlation coefficient has a value between -1 and 1. The relationship between the BUC and SCO and the performance of FMCG in Nigeria were negatively weak but statistically significant, as shown in the table above, with coefficient values of -0.5405 and -0.2828. Also, the coefficient values of ABC and LCC are 0.8533 and 0.8564 this was discovered to be weak and positively correlated with the performance of FMCG in Nigeria.

5. Discussion of Findings

The study showed how Nigerian fast-moving consumer goods performed in relation to cost management practice techniques. The study also showed that not all cost management techniques significantly influence the performance of fast-moving consumer goods in Nigeria. Budget control variables revealed how it influences the performance of FMCG companies in Nigeria. As a result, the hypothesis which states that budgetary control has no significant effect on the performance of FMCG companies in Nigeria is hereby rejected. This implies that budgetary control has a significant positive effect on FMCG company performance in Nigeria. The results confirmed the findings of Dunk (2009) and Adigbole, Adebayo, and Osemene (2020), who found that budgetary control is an important tool for organizations to monitor their financial strength in the public and private sectors. A significant correlation was found between FMCG company performance in Nigeria and activity-based costing results. Therefore, the conclusion suggests that ABC significantly impacts FMCG companies' performance in Nigeria. As a result, the null hypothesis proposed that activity-based costing does not significantly affect FMCG companies' performance in Nigeria is hereby rejected. According to Erasmus (2021), activity-based costing significantly enhances the company's profit before tax in Nigeria. The results of standard costing revealed a significant impact on FMCG company performance in Nigeria. Therefore, it is decided to accept the null hypothesis that standard costing has no significant influence on the performance of FMCG companies in Nigeria. These results against the submission of Erasmus' (2021) asserted that standard costing significantly impacted profit after tax. Evidence shows that cost management practices influence FMCG companies' performance in Nigeria. The study demonstrated the importance of life-cycle costing on Nigeria's fast-moving consumer goods market performance. As a result, the null hypothesis, which states that life-cycle costing has no significant effect on the performance of FMCG companies in Nigeria, is hereby rejected. This suggests that life-cycle costing has significant effect on FMCG company performance in Nigeria with the positive correlation. The outcomes against the findings of Alsoboa, Al-Ghazzani, and Joudeh (2015) that the life-cycle costing technique does not significantly impact the performance of the companies under study. The outcome, however, demonstrates how cost management strategies improve business performance.

6. Conclusion

The study concluded that cost management practice techniques contributed significantly to the performance of FMCG companies in Nigeria. The result of the budgetary control, activity-based costing and life-cycle costing were correlated with the performance of FMCG companies in Nigeria. However, there is a positive correlation and insignificant relationship between standard costing and the performance of FMCG companies in Nigeria. The study also concluded that the standard costing variable did not predict the performance of FMCG companies in Nigeria. The literature also depicts and concludes that the standard costing technique is insignificant to the performance of the firms. Thus, identifying, measuring, and quantifying effective cost management practice techniques associated with the performance of FMCG firms was an indication of good costing techniques. This accounting system aims to broaden the disclosure of corporate goals and places sustainable development makes this implication completely. However, implementing sustainable financial performance is one of the key factors in gaining a competitive advantage, symbolising a successful cost management practice for the business.

7. Recommendations

Based on the study's findings, it was recommended that a follow-up investigation be conducted in other sectors of the economy to assess the effect of cost management practice techniques on the performance of FMCG companies in Nigeria. Also, financial sustainability is important for a business to stay competitive. Therefore, to meet the sustainability challenges in their environment, FMCG companies manage the costs required by hiring qualified professionals to handle cost management. The study also demonstrates the urgent need to employ a professional accountant to review the type of cost management techniques adopted by FMCG companies and provide guidance on the required initiatives.

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