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EDITORIAL

The Journal of Banking of The Chartered Institute of Bankers of Nigeria is a research-based publication that focuses on topical issues in the core areas of Banking and Finance as well as other related disciplines with an emphasis on the implications for the financial services sector and the economy. This edition, Volume 11, No I, features selected topics that provides valuable insights into economic stability, policy implications and business performance, making them essential for informed decision-making and sustainable growth in Nigeria.

Aggreh, Abiahu, and Nworie in their study, examined the impact of cost reduction strategies on the financial performance of quoted consumer goods firms in Nigeria Using an ex-post facto research design, the findings revealed that the effect of Cost of Sales, Cost of Assets and Staff Cost have no significant influence on the Return on Equity of listed consumer goods firms in Nigeria. The study therefore recommends among others, that management personnel overseeing consumer goods firms should strategically invest in assets that have substantial future economic benefits, while ensuring efficient resource utilization and enhanced financial performance.

Oyendi investigated the Implications of Macroeconomic Policy on Stock Prices: Evidence from Nigeria for the period of 1970 to 2022. The study deployed both descriptive and econometric statistics for data analysis. The key findings, however, indicated that macroeconomic policies do not have a significant influence on stock prices. Consequently, the study underscored the need for a comprehensive review of existing macroeconomic policies to align with the objectives of fostering attractive and competitive stock prices, thus contributing to overall improved performance of the NSE.

Oluyemi Ayodele Olonite et al, analysed the relationship between dividend payments and the performance of construction companies listed in Nigeria,

using secondary data extracted from the annual reports of quoted construction companies in Nigeria. The study concluded that cash dividend payment (CDVND) was positive and significant in determining the variation change in Return on Equity (ROE) while the dividend payment did not have a significant effect on the return of equity. The paper therefore recommended the need for construction companies in Nigeria to enhance their commitment to disbursing dividends in the form of cash and ensuring these payments were made in a timely manner.

Garba evaluated the Impact of E-Service Quality on Customer Loyalty in the Nigerian Banking Industry: Bauchi State in Focus, using a cross-sectional survey design from eight internationally accredited bank customers in Bauchi State, Nigeria. The study established a significant association between the e-service and customer loyalty. To harness this potential effectively, the study offers recommendations, emphasizing the need for the banking sector to enhance among others website interactivity, streamline online banking processes for customers, and intensify efforts to raise customer awareness about the advantages of e-banking.

In conclusion, the research papers presented in this edition serves as invaluable sources of knowledge and understanding with far-reaching implications for the Nigerian financial sector as well as the economy. These insights offered guidance not only to businesses and financial institutions but also to policymakers and regulatory bodies.

We have no doubt that the content will be of immense value to our readers and researchers.

Akin Morakinyo
Editor -in- Chief

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COST REDUCTION AND FINANCIAL PERFORMANCE OF LISTED CONSUMER GOODS FIRMS IN NIGERIA

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Abstract

This study sought to determine the effect of cost reduction on the financial performance of quoted consumer goods firms in Nigeria. Specifically, the study ascertained the extent to which cost of assets, cost of sales and staff costs affect the return on equity of quoted consumer goods firms in Nigeria. The study used ex-post facto research design. Purposive sampling was used to obtain the twelve firms that made up the sample size of the study, from a population size of twenty. Secondary data were obtained from the review of audited financial statements of the listed consumer goods firms over the 10-year period from 2011 to 2020 (both years inclusive). Pooled Ordinary Least Square regression was used in estimating the test results at 5% level of significance. The major findings of the study are that: costs of assets do not significantly affect the return on equity of quoted consumer goods firms in Nigeria (t-ratio = – 0.05, Prob>t = 0.960); costs of sales do not significantly affect the return on equity of quoted consumer goods firms in Nigeria (t-ratio = –1.03, Prob>t = 0.305); staff costs significantly affect the return on equity of quoted consumer goods firms in Nigeria (t-ratio = 2.99, Prob>t = 0.003). The study recommends that shareholders of listed consumer goods firms

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should encourage programmes that enhance training, development and welfare of the staff since such investments make significant contributions to the firm's performance.

Keywords: *Cost Reduction, Financial Performance, Cost of Assets, Cost of Sales, Staff Costs, Return on Equity*

1.0 Introduction

1.1 Background to the Study

The contemporary business landscape is marked by increased complexity owing to factors such as globalization, shorter product life cycles, technological advancements, a growing number of competitors, and evolving customer preferences (Adegbie & Fadere, 2020). In response to these challenges, some companies operating within the consumer goods sector have initiated significant transformations in their manufacturing processes, leveraging modern manufacturing technologies to enhance economic profitability and reduce operational costs. To thrive in this competitive environment, various cost strategies have been embraced to provide effective cost management solutions since a firm's growth is intrinsically tied to its ability to control and curtail expenses (Oyedokun, Tomomewo & Owolabi, 2019). Consequently, minimizing the costs of business operations has become a critical tool for companies to maintain a competitive edge (Husein, Khalifa & Elkarim, 2016).

Historically, cost reduction was not a primary concern for firms, particularly prior to the industrial revolution in the 16th and 17th centuries when the focus was primarily on production and maximizing profit margins. However, in the 20th century, businesses began emphasizing the continuity of operations, necessitating a more vigilant approach to cost management by keeping expenditures as low as possible (Parker, 2018). Companies striving to optimize their overall performance can achieve this by implementing cost control techniques, enabling them to increase their revenue significantly across their product lines and services (Nworie & Nwoye, 2023). The essence of cost reduction lies in the development of strategies aimed at preventing the wasteful utilization of valuable resources and fostering a culture of efficiency and cost awareness (Lawal,

2017). Through a robust cost control system, firms can identify ways to manage the initial costs of a project, ensuring that expenses do not exceed a predetermined threshold. Consequently, cost control is integral to enhancing a firm's performance (Abdul & Isiaka, 2015).

While some researchers use the terms "cost reduction" and "cost control" interchangeably, it's important to distinguish between the two. Cost control involves furnishing precise information regarding which costs should be incurred, why they are necessary, and what corrective actions should be taken to ensure that actual expenses align with the planned budget (Ezejiofor, Nwakoby & Okoye, 2015). In the pursuit of reducing operational costs, consumer goods companies must adopt cost control measures to effectively manage and curtail expenses, thereby enhancing profitability. Measures aimed at reducing costs related to assets, sales, and staffing are particularly crucial in the manufacturing sector, where efficiency and cost-effectiveness serve as competitive advantages for growth and profitability (Austin & Ejike, 2019; Nworie, Okafor & John-Akamelu, 2022). Ultimately, financial performance encompasses the evaluation of an entity's or individual's fiscal well-being and success. It encompasses a diverse set of indicators and metrics used to gauge an entity's capacity to generate and manage income, profits, and assets efficiently (Nworie & Agwaramgbo, 2023).

A number of tools with which businesses use to reduce costs range from standard costing, target costing, Activity-Based Costing, etc. (Njeri, 2021). As consumer goods firms, just like every other firm, find it difficult to increase their profits and sales volume while reducing costs, most firms more than ever before are faced with marketing challenges. This has made most firms to adopt aggressive and dynamic costing methods that will enable them identify strategies that will ensure that the barest cost is incurred. The ultimate goal of this practice is to guarantee profitable existence. Companies engage in economic activities with the aim of making profit by using various inputs of the economy (Olayinka, 2019). The profit made therefore is the ability of the management of the company to shrewdly allocate the company’s resources or set out standard for all factors needed for effective production and provision of goods and

services. It equally includes the ability of management to get the best value from the cost of assets utilised, the cost of sales and the cost of remuneration paid to workers. Thus, it is imperative for business to cut or maximize costs so as to have enough profit to cover all of its operating cost.

The drive toward profit is a distinctive and dominating attribute of every business which is an important success factor for business. Extensive literatures regarding the firm's objectives often place much emphasis on maximization of shareholder's wealth. Thus, managers are extremely concerned about maximizing shareholder's wealth as it connotes future prospect and reflects steady growth (Nzewi, 2015). No firm will stay in business if it does not employ prudent means of checking its costs by ensuring that they do not overshoot the estimated cost projections. If costs are not checked and reduced properly, the outcome can be negative to the smooth running of the business. Therefore, all firms continually need to reduce cost not only in times of recession but also in periods of expansion and consolidations (Ogbuu, 2016). Cost affects profit thus the decision on the volume and the level of cost determines the profit outlook of the firm. The firms in today's business environment specifically incorporate some cost reduction practices in order to facilitate a better cost planning and control of the operational costs of the firm with a view to enhancing the profitability of the firm. It is for this reason that the present study is conducted to determine the singular effect of cost reduction on the financial performance of consumer goods firms in Nigeria.

1.2 Statement of Problem

The sustainability of consumer goods manufacturing companies in Nigeria in the 21st century is undeniably contingent on the effectiveness of their management, a feat attainable only through the enactment of sound policies aimed at curtailing operational costs (Olayinka, 2019). The escalating costs of production have been identified as a primary driver behind the closure of numerous manufacturing firms and have compelled some consumer goods manufacturers to scale down their production activities. Notable examples of failed consumer goods firms, including Bendel Brewery Limited, Danico West Africa Limited, Pal Breweries Plc,

Port Harcourt Flour Mills Limited, Scoa Foods Limited, Standard Biscuit & Agro Products, Jos, UTC Foods Plc, Vitamalt Plc, Ranona Limited, and Deli Foods Limited, can attribute part of their corporate demise to production costs (Nigerian Tribune, 2021).

In the contemporary consumer goods manufacturing sector, the significance of cost reduction has become more pronounced due to dwindling profitability, surging production expenses, intensified competition, and a variety of economic challenges (Ayaundu & Ogoun, 2020). These factors have further imperiled the longevity and financial prosperity of consumer goods manufacturers throughout the country. Consequently, corporate profitability is adversely impacted, ushering in a host of substantial business challenges for managers. As a result, cost accountants face mounting pressure to adapt and adopt practices that best address the emerging demand for cost-cutting strategies without compromising operational efficiency and pricing decisions.

Notably, the existing body of literature such as Nworie and Nwoye (2023); Njeri (2021), Erasmus (2021), Adegbie and Fadere (2020), Olayinka (2019), Oyedokun, Tomomewo, and Owolabi (2019), Parker (2018), Smith (2017), Husein, Khalifa, and Elkarim (2016), Alireza and Mahdi (2012) that have scrutinized the impact of cost reduction on the performance of consumer goods companies did not employ Percentage Change in the cost of assets, cost of sales, and staff costs as indicators of cost reduction. Instead, they focused on variables such as downsizing staff numbers, reducing staff salaries, cost-cutting, and outsourcing. This study takes a distinctive approach by investigating whether Percentage Change in the cost of assets, cost of sales, and staff costs exert an influence on the financial performance of publicly traded consumer goods firms in Nigeria.

1.3 Objectives of the Study

The main aim of this study was to determine the effect of cost reduction on the financial performance of quoted consumer goods firms in Nigeria. Specifically, the study sought to:

i. *Determine the extent to which costs of assets affect the return on*

equity of quoted consumer goods firms in Nigeria.

ii. *Ascertain the effect of cost of sales on the return on equity of quoted consumer goods firms in Nigeria.*

iii. *Ascertain how staff costs affect the return on equity of quoted consumer goods firms in Nigeria.*

1.4 Research Hypotheses

Ho1: *Costs of assets does not significantly affect the return on equity of quoted consumer goods firms in Nigeria.*

Ho2: *Cost of sales does not significantly affect the return on equity of quoted consumer goods firms in Nigeria.*

Ho3: *Staff costs do not significantly affect the return on equity of quoted consumer goods firms in Nigeria.*

2.0 Review of Related Literature

2.1 Conceptual Review

2.1.1 Cost Reduction

Cost reduction is the application of appropriate accounting techniques in processing the historical and projected economic data of an entity to assist management in establishing a plan for reasonable economic objective and in making of rational decision with a view towards reducing corporate expenditure (Parker, 2018). It is aimed at providing managers with information to help them make decisions and maintain a more efficient control over corporate resources (Wilson, 2016). Cost reduction practice entails method or concepts necessary for efficient planning decision making that allows for choosing among alternative business actions and controlling through the evaluation and interpretation of performance (Ezejiofor, Nwakoby, & Okoye, 2015). The techniques of cost reduction provide timely and accurate information to facilitate efforts to control costs, to measure and improve productivity.

Cost reduction strategy entails a set of techniques and methods for planning, measuring, and reporting intended to reduce a company's expenditure incurred on products and processes. The first step in cost reduction strategy is taken while ascertaining cost for cost control and decision-making purpose (Oluyinka, 2016). They can be applied to make

or buy decisions, negotiation price appraisal and assessing purchasing performance. The purpose of cost management practice is to compute the total cost of production of goods or the cost of providing services, and to help in cost control and cost reduction in the firms. Cost reduction strategy is concerned primarily with the internal needs of management; it is oriented toward evaluation of performance and development of estimates of the future with the aim of lessening firm expenditure. The practice of cost reduction is a system which is designed to suit the way goods are processed or manufactured or the way services are provided, with the least possible cost. Cost reduction is defined as a phenomenon established to ensure efficiency of the overall cost of the organization (Lawal, 2017). It is a kind of reduction that is of a permanent nature because it directly influences the unit cost of manufactured products without impairing the intended quality (Olayinka, 2019). Cost reduction entails a concept of creating favourable standard cost while retaining the value of products. It systematically improves profit margin by removing various kinds of waste and eliminable expenses without jeopardizing revenue generation. It is also known as profit improvement or cost efficiency. This study focuses on reduction of asset costs, cost of sales and staff costs.

2.1.1.1 Cost Management Practice as a Cost Reduction Strategy

The history of cost management practice as a cost reduction strategy can be traced back to the fourteenth century (Kaplan & Norton, 2011). Then, the traditional approach was merely to seek for ways by which cost data could be gathered for decision-making purposes. The mid-1980s witnessed the start of new movements in the field of cost accounting whereby a gap emerged between the opinions of academia and practitioners regarding the degree of usefulness of cost accounting techniques as a means of cost control and reduction. In ancient days, as observed by Ezeagba (2014), the information required by those who were interested in a business organization was met by those practicing a system of accounting known as financial accounting system. That was made possible because financial accounting system is mainly concerned with preparation of two important statement, viz., statement of financial performance and statement of financial position. However, it got to a point whereby the management of every business organization is interested in

knowing much more than the usual information supplied to outsiders to enable firm managers carry out its functions of planning, decision-making and control, hence the requirement for additional cost data (Erasmus, 2021). However, the financial accounts to some extent fail to provide required cost data to management which then resulted in a new system of accounting capable of providing internal report of management. This is the genesis of cost accounting and its techniques such as marginal costing, standard costing, absorption costing, activity-based costing, target costing whose purpose is to reduce cost of operation to the minimum while enhancing firm profitability.

2.1.2 Management of Cost of Assets

Cost of assets is the amount of resources expended or sacrificed to acquire an asset and it can also be defined as the monetary value of expenditure incurred to acquire firm properties (Olayinka, 2019). It refers to expenses incurred in firm resources which the business uses to generate revenue to meet all the business obligations. In business, the cost of assets is simply narrowed down to the monetary valuation of assets incurred and attendant expenses incurred in the course of acquiring the asset. Asset costs can be classified into current asset costs and non-current asset costs. Cost of assets occurs as a result of the capital investments made to steer the cost of firm's activities, such as the plants, properties and equipment, business premises, accounting software, patent rights, etc. (Adegbie & Fadere, 2020).

2.1.3 Management of Cost of Sales

Costs of sales are expenditures incurred as a result of the sale of products such as sales transfer, ordering cost, carriage inwards, labour, raw materials and other direct production costs. Management of cost of sales is the appropriate classification and division of production costs in order to determine the final price of the products and services of the used commercial unit and adjustment and provision of relevant information appropriately in a way that it would be usable for the guidance of managers, the owners of used commercial units to control its operation (Erasmus, 2021). This can also be said to represent the process in which the costs of each part of production are measured. All the productive

companies sell their products in order to earn income and the income of each sold product is the difference in sale price and the total costs of sales. Therefore, management of cost of sales plays a crucial role in the design and the profitability of the product. The product not only should be produced in accordance with the defined operations, but also the making of the product should be possible in the frame of predicted costs at the beginning of the project in order to achieve success. Costs of sales occur as a result of the sale of products such as sales transfer, storage, sales commissions, and production costs. The greater the cost the higher the price of the product. Reduction in the rate of turnover will negatively affect the corporate performance of the companies especially on consumable goods industry. (Husein, Khalifa, & Elkarim, 2016).

2.1.4 Management of Staff Costs

Staff costs refer to the expenditure incurred in maintaining, training, and rewarding staff. It is the responsibility of the firm to engage in practices and formulate policies which are aimed at training the workforce and providing them with work conditions that reduce or eliminate work-related diseases and occupational injuries to enhance their physical and psychological well-being. Staff costs encompass salaries and wages, employee training and employee safety costs which are all critical factors that ought to be considered in order to achieve economic, environmental and social objectives of the firm. According to Farah and Rachmawati (2016), staff or human resources are the main elements of the firm compared to the other elements. Thus, the presence of staff within the company is essential and ipso facto requires a considerable level of attention as regards training and staff welfare. Staff costs can as well be seen as the financial returns and tangible services and benefits an employee receives as part of an employment relationship. It can be explained as the financial benefits that arise from performing a task, rendering a service, or discharging a responsibility (Waruni, 2014). Staff costs generally are the monetary compensation which an employee receives from an organization in exchange for the service offered by the employee or as the return for work done (Lin, 2007). There ought to be an effective system for planning and controlling these monetary rewards such as salaries, wages, bonus, pay, allowances, incentives, insurance, etc.

2.1.5 Financial Performance

Financial performance is the company's financial condition over a certain period that includes the collection and use of funds measured by several indicators of capital adequacy ratio, liquidity, leverage, solvency, and profitability (Kinyugo, 2014). Financial performance is the company's ability to manage and control its resources. This term 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 (Alsoboa, Ali & Abdulhakim, 2015). Okegbe, Ofurum and Darlington (2019) opined that corporate performance measures are the life blood of economic units with which decision are made. Nworie, Onyeka and Anaike (2023) viewed financial performance as a subjective measure of how well a firm uses assets from its primary mode of business to generate revenues. In the research carried out by Erasmus (2021), it was stressed that the performance measurement concept indicates that employees can increase the value of the firm by, increasing the size of a firm's future cash flows, accelerating the receipt of those cash flows, or making them more certain or less risky. Firm performance is the single most important factor in assessing growth potential, earnings capacity, and overall financial strength (Gichuki, 2014). It measures the 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 (Alsoboa, Ali & Abdulhakim, 2015; Nworie & Mba, 2022). According to Nelly (2010), the corporate performance measures mainly serve three purposes. They serve as a tool of financial management; they serve as major objectives of business, and they serve as a mechanism for motivation and control in an organization. Various researchers have used different corporate performance measures. The financial strength of an organization is measured in monetary terms and the results are reflected in firm's profitability ratio such as return on capital employed (ROCE), Net profit margin (NPM) and Earnings per shares (EPS) etc. (Adegbie & Fadere, 2020).

2.1.5.1 Return on Equity

Return on equity (ROE) measures the ratio of net profit of a company to its equity. It shows the profitability of a company by expressing its net profit as a percentage of its shareholders' funds (Irfanullah 2019). Return on equity is a measuring tool that measures the efficiency and profitability of shareholders' invested fund in a corporation. It is a ratio that also indicates whether the company is earning sufficient revenues and profits in order to make the best use of its capital contributed by the shareholders. Companies with low return on equity are always being suspecting because they are in danger of becoming loss-making if trading conditions deteriorate (Adegbie & Fadere, 2020). Return on equity is generally calculated on the basis of two major calculations/ components which are net profit and equity. Net Profit is the profit that a company earns from its business operations after the deduction of taxes and interests, and it is also known as earnings after interest and taxes (EAIT). It is calculated by deducting all operating expenses, tax expense, finance cost and cost of goods sold from revenues while equity is the total amount of share value, share premium, retained earnings and every other component that represents movement in shareholders' value in the business operations.

2.1.6 Cost Reduction and Corporate Performance

Generally, operating costs are expenses incurred in the process of running business operations that actually turn acquired products intended for sale into actual sales revenue (Njeri, 2021). They include payments to workers and storage expenses among others. Cost behaviour according indicates the ways in which costs vary or do not vary with the level of activity in an organization. Costs are expenses which have been consumed in earning revenue. However, for adequate profit to be recorded from a business there is a need for adequate control or reduction of cost. Competitive business environment requires efficient financial management which underscores the significance of adopting cost reduction practices to enhance cost control (Erasmus, 2021). Adeleke (2014) was of the opinion that quite a good number of manufacturing companies in Nigeria have ceased to operate, and more prominent companies have acquired many or at best, merged with other more prominent manufacturing companies. Some have relocated their operational bases to neighbouring countries

(Abdul & Isiaka, 2015). Few manufacturing companies that are still operating within the Nigeria market have resulted in using cost reduction as a strategy for sustaining their earnings. Cost reduction strategies are expected to be an integral part of any profit-making venture that wants to continue in business especially in the current downturn as no firm will stay in business if it does not put precise mechanisms in place to check its costs so that the expenses do not surpass the estimated projections (Oyedokun, Tomomewo & Owolabi, 2019). If charges are not properly checked, the outcome can be detrimental to the smooth running of the business. Thus, managers are required to match budgeted and actual costs and strive to ensure that they always remain within the estimated projections. The significance of cost reduction is that it helps organizations survive in the competitive, ever-changing world, because it provides an important advantage for an organization that guides managerial action, motivates behaviours, support and creates the cultural values necessary to achieve an organization's strategic objective (Erasmus, 2021). The survival triplet today for any company are how to manage product/service cost, quality, and performance. Customers are continuously demanding high quality and better performance products/services and at the same time, they want the price to be reasonably low. The shareholders are also demanding a required rate of return on their investment from the company hence, cost has become a residual. The challenge is being able to manufacture products or provide services within the acceptable cost framework (Njeri, 2021).

Chung and Khan (2013) rightly observed that the techniques to be followed for analysis of expenses and the processes of different products vary from industry to industry. More so, even the changes in business environment requires a better method which can help managers control their costs of operation to enhance firm profitability and corporate performance (Erasmus, 2021). A dynamic business environment is meant to lead to the need for new costing methods for new cost objects. Marginal costing was born as a result of the demand for this. According to this method, only costs which are adjusted to the production process should be the concern of managers. However, in the long run, some fixed costs still need to change. As a must a new cost accounting method is invented.

Instead of sharing equally among various departments and maintaining the fixed costs in the long run, expenses are divided differently based on some factors such as labour hours, direct materials and the fixed cost can be changed based on the need of the production process (Sinikka & Hana, 2012). Be that as it may, cost reduction strategy, however, has always been intended to provide support for decision making that are internally used by managers. The main object of cost reduction is the analysis of cost records so as to subdivide expenditure and to allocate it efficiently to selected cost centres and hence build up a total cost for the products (Emmanuel, 2013). Cost reduction helps firms to control their actual or forecasted costs incurred by a business operation. It allows business to predict impending expenditures and prevent over budget (Adegbie & Fadere, 2020). Given that profit is the resultant effect of two varying factors, sales, and cost, the wider the gap between these two factors, the larger is the profit. Thus, profit can be maximized either by increasing sales or by reducing costs as ascertained by the management (Institute of Cost Accountants of India, 2016). However, most consumable goods companies increase in turnover yet most merged, ceased to operate while some break up as a result of their low or corporate financial performance. It is this link that informed the researcher to carry out a study on the effect of cost reduction on the corporate performance of listed consumer goods firms in Nigeria.

2.2 Theoretical Framework

2.2.1 Lean Theory

Lean theory was propounded by John Krafcik who coined the term "Lean" in his 1988 article, "Triumph of the Lean Production System". The theory proposes that systems of inventory should be designed in a way that optimizes costs. According to Atnafu and Assefa (2018), the lean theory augments the thoughts of Just-in-Time model and puts buffer stock into consideration while it advocates for the minimization of wastages in production procedure. On the note that inventory leanness significantly influences firm productivity, lean theory is of the view that this model is one of, if not the best, cost control tools. Through this theory, the shortcomings of the economic order quantity model are considerably addressed because the lean theory also borrows foundation from the EOQ

model that solely seeks to optimize the quantity of any batch of inventory ordered (Musau, Namusonge, Makokha and Ngeno, 2017).

Lean theory emphasizes that a pull-based system should be put in place to help the organisation align the production and business processes throughout the supply chain and inventory planning. The theory attempts to reduce wastes in the production process because the theory indicates how firms can be more flexible in their costing decisions with a view to reducing the amount or quantity of resources used or held on site. Analysing lean theory vis-à-vis the cost management will reveal that most firms are beleaguered by ineffective cost control system. Consumer goods firms that rely on imported stock assets, for example, often experience unnecessary delays and communication problems which all jointly make the calculations of lead time inaccurate. This is the reason lean theory is mostly advocated for, as cost management tool that best controls the flow of stock assets for optimal stock levels. The relevance of lean theory to the study is because it presented cost management practices as a vital part of any supply chain that helps to control or reduce costs of operation with the aim of enhancing profitability. In the present study, consumer goods firms need to match demand and supply in the supply chain while considering uncertainties in the market environment. Musau, Namusonge, Makokha and Ngeno (2017) then submitted that, based on the lean theory, therefore, firms can more successfully find ways of optimizing costs by way of lean supply chain systems and practices in order to achieve a better level of both asset utilization and customer satisfaction that ultimately result in enhancement of corporate profitability, growth, and operational performance.

2.3 Empirical Review

Nworie and Nwoye (2023) investigated the impact of cost factors on operating profits in the Nigerian consumer goods firms. They selected 13 out of 20 listed companies and used data from their 2011-2020 annual reports. Their findings revealed a positive but statistically insignificant effect of inventory costs on operating profit ratios. Labour costs, on the other hand, had a positive and significant impact, while selling and

distribution costs showed a negative effect that was not statistically significant.

Olabisi, Sokefun, and Oginni (2012) explored the connection between cost reduction and profitability in small and medium-sized enterprises in Ogun State, Nigeria. They collected primary data from 269 respondents in various sectors and found a significant relationship between Kaizen cost management techniques and SME profitability.

In a study by Oyewo (2013), the role of strategic cost management in surviving recessions in the Nigerian manufacturing and financial service sectors was examined. Questionnaires were used to gather data from 212 respondents in both sectors. The research found that effective strategic cost management is essential for business survival during economic downturns, with a more substantial application of SCM in the manufacturing industry compared to the financial services sector.

Adam, Anders, and Jacobs (2013) empirically investigated the influence of cost control systems and information technology integration on the financial performance of U.S. manufacturing plants. They surveyed 518 managers from plants using activity-based costing and volume-based costing. Their findings suggested that information technology integration and cost control systems did not independently provide significant effects on plant financial performance.

Ayodele and Alabi (2014) examined the impact of cost control techniques on building project delivery for government and private developers in Southwest Nigeria. The study involved 178 building projects, and the results revealed that cost control techniques were utilized on government contracts, while private developers did not employ any of these techniques.

Emengini (2014) examined the impact of product cost management on the profitability of Nigerian manufacturing firms, employing a descriptive research design with a sample size of 58 companies. The study collected primary data via questionnaires and analyzed the data using Student's t-

test and Multivariate analysis of variance (MANOVA). The findings indicated that implementing product cost management, including Activity-Based Costing (ABC) and traditional costing, led to cost reduction and effective cost control. However, there was no statistically significant difference between ABC and traditional costing in terms of cost reduction, even though ABC demonstrated a slightly higher impact on profitability.

Kinyugo (2014) investigated the relationship between cost efficiency and financial performance of companies listed on the Nairobi Securities Exchange in Kenya. The study adopted a descriptive survey design and included 47 companies with continuous financial data from 2008 to 2013. Secondary data was used, and the analysis relied on regression and correlation methods. The results revealed a significant positive association between Return on Assets and Efficiency, indicating that cost efficiency positively affected the return on assets of NSE-listed companies in Kenya.

Similarly, Oyadonghan and Ramond (2014) examined the connection between quality cost management and firm profitability in the hospitality industry in Bayelsa state, Nigeria. Using a survey research design, the study collected primary data through questionnaires and employed correlation analysis with SPSS version 20. The results demonstrated a significant relationship between quality cost management and firm profitability.

Oluwagbemiga, Olugbenga, and Zaccheaus (2014) explored the relationship between cost management practices and the performance of manufacturing firms listed on the Nigerian stock exchange. They employed an ex-post facto research design and used secondary data from 40 listed manufacturing companies from 2003 to 2012. The study employed T-test statistics to validate hypotheses and found a positive and significant relationship between cost management practices and firm performance in the Nigerian manufacturing sector.

Gichuki (2014) investigated the impact of costing techniques on the financial performance of manufacturing companies listed on the Nairobi Securities Exchange. Using a causal-comparative research design, the study relied on secondary data from a sample of six out of eight listed manufacturing companies. The analysis was conducted using a multivariate linear regression model, revealing a positive relationship between costing techniques and the financial performance of listed manufacturing companies in Kenya.

Lasisi and Nuhu (2015) conducted a study to examine the impact of cost control on the survival of firms in Nigeria. Employing a survey-based descriptive research design, the researchers collected primary data through structured questionnaires administered randomly to 30 staff members of the Nigerian Bottling Company Plc. (Jos Plant). Data analysis involved percentages and means. The findings revealed that 70% of respondents strongly agreed that cost control has a positive effect on firm profitability, while 13.3% were undecided, and 16.7% disagreed.

Alsoboa, Ali, and Abdulhakim (2015) investigated the influence of strategic costing techniques on the performance of Jordanian Listed Manufacturing Companies (JLMC). They conducted a survey of JLMC, distributing 91 questionnaires and receiving 60 responses, with a response rate of approximately 65.9%. Descriptive statistics showed that JLMC demonstrated improved performance after adopting strategic costing techniques. One-sample t-tests indicated that all strategic costing techniques were used by JLMC. The results of multiple regressions indicated that these techniques significantly contributed to and explained a substantial portion of the variation in JLMCs' performance. Specifically, ABC, TC, and COQ had a statistically significant positive effect on JLMC's overall performance, financial performance, and market performance.

Ezejiofor, Nwakoby, and Okoye (2015) examined the influence of cost management on the operational performance of manufacturing companies in Nigeria. They relied on secondary data extracted from the annual accounts and reports of five food production companies over five years.

Using Simple Regression Analysis with SPSS version 20.0, they tested hypotheses and found that cost management had a positive and significant impact on the operating profit and earnings per share of manufacturing firms in Nigeria.

Egbunike and Adeniyi (2017) sought to determine the impact of cost reduction strategies on bank profitability in Nigeria, specifically analyzing the effects of downsizing employees and reducing staff salaries on return on assets. Employing a descriptive survey research design and purposive sampling, they focused on first-generation banks licensed with international authorization in Nigeria. The study used secondary data from the Nigerian Stock Exchange Fact-book and Annual Report and Accounts for the sample population from 2006 to 2016. Linear regression analysis was used to test hypotheses, revealing a negative association between downsizing employees and staff salary reduction with profitability.

Lawal (2017) investigated the impact of cost control and cost reduction on the performance of Chemster Paints Industry in Nigeria. The study employed a survey descriptive research design and included 50 respondents from Chemster Paints Industry. Data were collected through questionnaires, with cost control and cost reduction as the independent variables and organizational performance as the dependent variable. Inferential statistical analysis was used to analyze the data, and the results showed a positive effect of cost control and cost reduction on the organizational performance of Chemster Paints Industry in Nigeria.

Kanthana (2018) examined the influence of cost management quality on internal control effectiveness and decision-making in Thai industrial firms. The study utilized a descriptive survey design, with a sample of 354 new manufacturing industries in Thailand for the year 2017. Data were collected through mailed questionnaires, resulting in a response rate of 96.05%. Ordinary least squares regression was used to test the hypotheses, and the findings revealed a positive relationship between cost management quality and the effectiveness of internal control and

decision-making reliability. Additionally, internal control effectiveness and decision-making reliability positively affected firm performance.

In a study by Oyedokun, Tomomewo, and Owolabi (2019) that aimed to determine the impact of cost control on the profitability of selected manufacturing companies in Nigeria, an ex-post facto research design was used. The study focused on five companies in the consumer goods sector listed on the Nigeria Stock Exchange over a ten-year period (2005-2017) using a judgmental sampling technique. Secondary data were obtained from the audited financial statements of the sampled firms, and regression analysis was employed to test the hypotheses. The results revealed a significant negative association between the cost of raw materials (CoRM) and the profit before tax of manufacturing companies in Nigeria. Adigbole and Osemene (2019) assessed the influence of cost management techniques, including Activity-Based Management (ABM), life cycle costing (LCC), and Target Costing (TC), on the accuracy of cost information in Nigerian manufacturing firms. The study employed a descriptive survey research design with a sample of 325 respondents from 65 randomly selected manufacturing firms in Lagos and Ogun States. Data were collected through questionnaires, and Partial Least Squares Structural Equation Modeling was used for data analysis. The findings indicated that ABM had a positive effect on the accuracy of cost information, LCC had no significant impact, and TC positively influenced the accuracy of cost information.

Mamidu and Akinola (2019) conducted a study to explore the impact of cost management on the performance of manufacturing companies in Nigeria, guided by portfolio theory, resource-based view theory, and efficient structure theory. The study utilized an ex-post facto research design and obtained secondary data from the annual reports of listed companies in Nigeria. The data included direct material cost, direct labour cost, and production overhead as independent variables and operating profit as the dependent variable. Ordinary Least Square Linear Regression analysis was employed to test the hypotheses, and the results indicated a significant influence of cost management on profits generated from production operations.

Olayinka (2019) conducted a study to investigate the impact of indirect costs on the performance of selected manufacturing companies in Nigeria. The research employed an ex-post facto research design and focused on a sample of five conglomerate manufacturing companies within the Food and Beverage sector of the Nigerian Stock Exchange, spanning from 2008 to 2017. The study used secondary data extracted from the audited annual accounts of these companies, with Selling and Distribution cost, administrative cost, and finance cost as independent variables, and Profit Before Tax (PBT) as the dependent variable representing profitability. The analysis utilized pooled ordinary least square regression (OLS) to test the hypotheses, revealing that indirect costs had a positive and significant effect on the profitability of manufacturing companies.

Adegbie and Fadere (2020) carried out a study to examine the influence of cost management techniques on the financial performance of quoted consumer goods firms in Nigeria. The study focused on a population of 27 consumer goods companies listed on the Nigeria Stock Exchange and selected a sample frame of 10 companies over a ten-year period (2009-2018) using purposive sampling. Data were sourced from the audited financial statements, and regression analysis was used to test the hypotheses. The results indicated that cost of Sales, Selling and distributing cost, administrative cost, and Finance Cost collectively had an insignificant effect on Net profit margin.

Erasmus (2021) investigated how cost management practices influence the financial performance of listed Deposit Money Banks in Nigeria. The study measured cost management using activity-based costing, target costing, and standard costing, while financial performance was assessed by profit before tax. The population of the study included 15 listed deposit money banks in Nigeria, and a sample of 10 banks was selected using judgmental sampling techniques. Primary data were obtained through a structured questionnaire employing a five-point Likert scale, and secondary data came from annual financial reports of listed Deposit Money Banks in Nigeria from 2010 to 2018. Ordinary Least Square Regression was used to test the hypotheses, and the findings revealed that activity-based costing had a significant impact on profit before tax, target

costing had a negative impact, and standard costing had a positive and significant impact on profit before tax, indicating that cost management practices influenced financial performance.

Njeri (2021) explored the impact of cost management on the performance of Agribusiness enterprises in Kenya. The study employed a descriptive panel research design and collected secondary data from the financial statements of selected firms. The population consisted of four Agribusiness enterprises, and a sample was taken from a population of 1,245 farmers using census sampling. Secondary data spanning ten years (2009-2018) were obtained and analyzed using multiple panel regression models. The study found that cost management significantly affected the return on investment of Agribusiness enterprises in Kenya.

2.4 Gap in Literature

Related studies carried out to examine the issues above include Njeri (2021); Erasmus (2021); Adegbie and Fadere (2020); Olayinka (2019); Oyedokun, Tomomewo and Owolabi (2019); Parker (2018); Smith (2017); Husein, Khalifa and Elkarim (2016); Alireza and Mahdi (2012), etc. The existing literature that examined the effect of cost reduction on the performance of consumer goods firms failed to investigate the effect of Percentage Change in cost of assets, cost of sales and staff costs to represent cost reduction. They rather focused on variables such as Downsizing Number of Staff, Reduction of Staff Salary, Cost Cutting and Outsourcing. This study takes a unique step to ascertain whether Percentage Change in cost of assets, cost of sales and staff costs influence the performance of quoted consumer goods firms in Nigeria.

3.0 Methodology

The study used *ex-post facto* research design. *Ex-post facto* design is suitable for a study such as these which deals with data that are already in existence and the researcher cannot manipulate its' outcome. Kerlinger (1964) defined *ex-post facto* research as that research in which the independent variable or variables have already occurred and in which the researcher starts with the observation of a dependent variable or variables. The independent variable is then studied in retrospect for their possible

relations to, and effect on, the dependent variable or variables. The study population is all the twenty consumer goods firms that are quoted on the Nigerian Exchange Group (formerly called Nigerian Stock Exchange) between 2011 to 2020 accounting periods. The Daily Stock list of the Nigerian Exchange Group (NGX) as of 31st December 2020 showed that the following twenty firms are quoted under the consumer goods sector of the NGX:

Table 3.1 Population of the Study

1. Cadbury Nigeria Plc.	11. Multi-trex Integrated Foods Plc.
2. Champion Brewery Nig. Plc.	12. Northern Nig. Flour Mills Plc
3. Dangote Sugar Refinery Plc.	13. Nascon Allied Industries Plc.
4. DN Tyre and Ruber Plc.	14. Nestle Nigeria Plc
5. Flour Mills Nig. Plc.	15. Nigerian Breweries Plc
6. Golden Guinea Brewery Plc.	16. Nigerian Enamelware Plc
7. Guinness Nig. Plc	17. PZ Cussons Nigeria Plc.
8. Honeywell Flour Mill Plc.	18. Unilever Nigeria Plc.
9. International Breweries Plc.	19. Union Dicon Salt
10. MCnichols Plc.	20. Vitafoam Nigeria Plc

Source: *NGX Daily Stock List, (2021)*

Purposive sampling was used to obtain the final sample that participated in the study proper. The criteria adopted in selection of the sample for this study was that the firm must be registered with the Nigerian Exchange Group as at December 2011 and remained listed till 2020. More so, only firms that have consecutively uploaded their annual reports on their websites were selected into the sample size of the study which is shown in **Table 3.2** below.

Table 3.2: Presentation of the Sample Size of the Study

1. Cadbury Nigeria Plc.
2. Champion Brewery Nig. Plc.
3. Dangote Sugar Refinery Plc.
4. Guinness Nig. Plc
5. Honeywell Flour Mill Plc.
6. Northern Nig. Flour Mills Plc
7. Nascon Allied Industries Plc.
8. Nestle Nigeria Plc
9. Nigerian Breweries Plc
10. PZ Cussons Nigeria Plc.
11. Unilever Nigeria Plc.
12. Vitafoam Nigeria Plc

Source: *NGX Daily Stock List, (2021)*

Secondary data were obtained from the review of audited financial statements of the listed consumer goods firms over the 10-year period from 2011 to 2020 (both years inclusive). The data collected aided in computation of cost of sales, cost of assets and staff costs as well as return on equity as the corporate performance indicator. Therefore, with a sample size of twelve and a 10-year period, there are 120 firm-year observations in the study. Also, descriptive statistics examined the means and standard deviations of variables and their minimum and maximum values over time within the period of this study. Ordinary Least Square regression analysis was applied to the regression model to measure, explain, and predict the linkage between the variables. The study adapted the model prescribed by Oyedokun, Tomomewo and Owolabi (2019) with some modifications. Oyedokun, Tomomewo and Owolabi (2019) specified their model thus:

$$PRT = \beta_0\ \beta_1 CoRM + \beta_2 SDexp + \beta_3 SWexp + \beta_4 RDc + \beta_5 TrC + \mu \ldots\ldots\ldots \text{ eqn I}$$

Where:

PRT	=	*Profitability*
CoRM	=	*Cost of Raw Materials.*
SWexp	=	*Salaries and Wages*
SDexp	=	*Selling and distribution Expenses*
RDc	=	*Research and development Cost*
TrC	=	*Training Cost*

In the present study, cost reduction is the independent variable which is measured by percentage change in cost of assets, cost of sales and staff cost. On the other hand, firm performance is the dependent variable which is measured by Return on Equity. The adjustments in the model above produced the model used in the study as stated in Equation II.

$$ROE_{it} = \beta_0 + \beta_1\ \%\Delta COA_{it} + \beta_2 \%\Delta COS_{it} + \beta_3 \%\Delta SCO_{it} + \mu_{it} \ldots\ldots\ldots \text{ eqn II}$$

Where:

ROE_{it}	= *Return on Equity for firm i in period t*
$\%\Delta COA_{it}$	= *Percentage Change in Cost of Assets for firm i in period t*
$\%\Delta COS_{it}$	= *Percentage Change in Cost of Sales for firm i in period t*
$\%\Delta SCO_{it}$	= *Percentage Change in Staff Costs for firm i in period t*
β_0	= *Constant*
$\beta_{1\text{-}3}$	= *Coefficients of the parameters*
μ_{it}	= *Error Term for firm i in period t*

The variables used in the study are operationalized thus:

1. %ΔCost of Assets (COA) =

$$\frac{Current\ Cost\ of\ Asset - Previous\ Cost\ of\ Assets}{Previous\ Cost\ of\ Assets} \quad X \quad 100$$

2. %ΔCost of Sales (COS) =

$$\frac{Current\ Cost\ of\ Sales - Previous\ Cost\ of\ Sales}{Previous\ Cost\ of\ Sales} \quad X \quad 100$$

3. %ΔStaff Costs (SCO) =

$$\frac{Current\ Staff\ Costs - Previous\ Staff\ Costs}{Previous\ Staff\ Costs} \quad X \quad 100$$

4. ROE =

$$\frac{Earnings\ After\ Tax}{Total\ Equity}$$

4.0 Results

4.1 Descriptive Analysis

This study adopted descriptive statistical analysis whereby the data collected through secondary sources were tabulated and analyzed using means and standard deviations of variables and their minimum and maximum values over time within the period of this study.

Table 4.1 below shows the descriptive statistics of the variables.

Table 4.1 Descriptive Statistics of the Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
ROE	120	.1775809	.2684654	-.8994733	1.338432
COS	120	23.43375	113.5916	-98.19246	907.0184
COA	120	8.761041	17.29011	-49.80036	60.3819
SCO	120	10.21807	22.76499	-65.08484	95.43972

Source: *Analysis Output (2022) Using Stata Version 16*

Return on Equity (ROE), Cost of Sales (COS), Cost of Assets (COA) and Staff Costs averaged .1775809, 23.43%, 8.76% and 10.22%, respectively. The standard deviations of ROE, COS, COA, and SCO are .2684654, 113.59%, 17.29% and 22.76%, respectively. Little observed fluctuations in the variables showed that the data are approximately homogenous except for ROE whose range scaled through -.8994733 to 1.338432.

4.2 Test of Hypothesis

Pooled Ordinary Least Square regression analysis was applied to the regression model to measure, explain, and predict the linkage between the variables. The multiple regression model adapted is restated below:

$$ROE_{it} = \beta_0 + \beta_1 \%\Delta COA_{it} + \beta_2 \%\Delta COS_{it} + \beta_3 \%\Delta SCO_{it} + \mu_{it}$$

The estimated test results for test of hypothesis I to III are shown in **Table 4.2.**

Table 4.2 Estimated Test Results for Test of Hypotheses I - III

Source	SS	df	MS	Number of obs	=	120
				F(3, 116)	=	1.45
Model	.309790938	3	.103263646	Prob > F	=	0.2322
Residual	8.26697284	116	.071267007	R-squared	=	0.0361
				Adj R-squared	=	0.0112
Total	8.57676378	119	.072073645	Root MSE	=	.26696

ROE	Coef.	Std. Err.	t	P>|t|	Beta
COA	.0019271	.0014203	1.36	0.177	.124109
COS	.0003158	.0002161	1.46	0.147	.1336145
SCO	-.0002654	.001076	-0.25	0.806	-.0225028
_cons	.1560094	.0296308	5.27	0.000	.

Source: *Analysis Output (2022) Using Stata Version 16*

The estimated results in **Table 4.2** above reveal the extent of effect which cost reduction has on the corporate performance of quoted consumer goods firms in Nigeria. According to the results, R^2 = 0.0361 which indicates that the interaction among Cost of Sales, Cost of Assets and Staff Cost jointly account for about 3.61% variations in Return on Equity of listed consumer goods firms in Nigeria. The model was shown to be significant at predicting ROE since the *F*-statistic = 1.45 has a corresponding Prob>F = 0.2322 that is greater than 0.05. It was upon this

basis that the study concluded that the combined effect of Cost of Sales, Cost of Assets and Staff Cost have a non-significant influence on the Return on Equity of listed consumer goods firms in Nigeria (*F*-statistic = 1.45 has a corresponding Prob>F = 0.2322).

4.2.1 Test of Hypothesis I

Ho1: *Costs of assets does not significantly affect the return on equity of quoted consumer goods firms in Nigeria.*

The test of Hypothesis I established the degree of influence which cost of assets have on the return on equity of the firms under consideration. The coefficient of COA is 0.1241 which implies that there is a positive relationship between COA and ROE. In other words, an increase in COA by 1% will increase ROE by 0.1241. That notwithstanding, the positive effect of COA on ROE is not statistically significant because the Prob>t = 0.177 is greater than 0.05 alpha level. Based on the decision rule, thus, the alternate hypothesis was rejected while the null hypothesis was accepted. In conclusion, costs of assets do not significantly affect the return on equity of quoted consumer goods firms in Nigeria (*t*-ratio = 1.36, *Prob*>t = 0.177).

4.2.2 Test of Hypothesis II

Ho2: *Cost of sales does not significantly affect the return on equity of quoted consumer goods firms in Nigeria.*

The test established the effect of cost of sales has on the return on equity of the firms under consideration. The coefficient of COS is 0.1336 which implies that there is a positive relationship between COS and ROE. In other words, an increase in COS by 1% will increase ROE by 0.1336. That notwithstanding, the positive effect of COS on ROE is statistically non-significant because the Prob>t = 0.147 is greater than 0.05 alpha level. Based on the decision rule, thus, the alternate hypothesis was rejected while the null hypothesis was accepted. In conclusion, costs of sales do not significantly affect the return on equity of quoted consumer goods firms in Nigeria (*t*-ratio = 1.46, *Prob*>t = 0.147).

4.2.3 Test of Hypothesis III

Ho3: *Staff costs does not significantly affect the return on equity of quoted consumer goods firms in Nigeria.*

The test of Hypothesis III assessed the influence of staff cost on the return on equity of the firms under consideration. The coefficient of SCO is -0.0225 which implies that there is a negative relationship between SCO and ROE. In other words, an increase in SCO by 1% will increase ROE by 0.0225. That notwithstanding, the negative effect of SCO on ROE is not statistically significant because the Prob>t = 0.806 is greater than 0.05 alpha level. Based on the decision rule, thus, the alternate hypothesis was rejected while the null hypothesis was accepted. In conclusion, staff costs do not significantly affect the return on equity of quoted consumer goods firms in Nigeria (*t*-ratio = -0.25, *Prob*>t = 0.806).

4.3 Discussion of Findings

This study sought to determine the effect of cost reduction on the performance of quoted consumer goods firms in Nigeria. Specifically, the study ascertained the extent to which cost of assets, cost of sales and staff costs affect the return on equity of quoted consumer goods firms in Nigeria. OLS was used in estimating the test results at 5% level of significance. The major finding of the study is that the combined effect of Cost of Sales, Cost of Assets and Staff Cost have a non-significant influence on the Return on Equity of listed consumer goods firms in Nigeria (*F*-statistic = 1.45 has a corresponding Prob>F = 0.2322). However, when disaggregated, an increase in COA by 1% will increase ROE by 0.1241. That notwithstanding, the positive effect of COA on ROE is statistically non-significant because the Prob>t = 0.177 is greater than 0.05 alpha level. This finding does not agree with those of Egbunike and Adeniyi (2017). It is in line with normal logic that firm profitability is enhanced when the firm invests in income-yielding assets.

It was also shown in the hypothesis testing that an increase in COS by 1% will increase ROE by 0.1336. That notwithstanding, the positive effect of COS on ROE is not statistically significant because the Prob>t = 0.147 is greater than 0.05 alpha level. This finding is in consonance with the results

found by Egbunike and Adeniyi (2017); Oyedokun, Tomomewo and Owolabi (2019); and Adegbie and Fadere (2020). Finally, the estimated results indicated that an increase in SCO by 1% will reduce ROE by 0.0225. That notwithstanding, the negative effect of SCO on ROE is not statistically significant because the Prob>t = 0.806 is greater than 0.05 alpha level. This could be because the amount of money invested or spent in staff welfare, remuneration and development fail to fetch financial benefits for the firm. This finding does not agree with those of Kinyugo (2014); Oluwagbemiga, Olugbenga and Zaccheaus (2014); Lasisi and Nuhu (2015).

5.0 Conclusion and Recommendations

5.1 Conclusion

The significance of cost reduction is that it helps organizations survive in the competitive, ever-changing world, because it provides an important advantage for an organization that guides managerial action, motivates behaviours, support and creates the cultural values necessary to achieve an organization's strategic objective. The survival triplet today for any company is how to manage product/service cost, quality, and performance. It was for this reason that the present study explored the effect of cost reduction on the corporate performance of listed consumer goods firms in Nigeria. The findings revealed that the effect of Cost of Sales, Cost of Assets and Staff Cost have a non-significant influence on the Return on Equity of listed consumer goods firms in Nigeria. The techniques to be followed for analysis of expenses and the processes of different products vary from industry to industry. More so, even the changes in business environment requires a better method which can help managers control their costs of operation to enhance firm profitability and corporate performance. Cost reduction helps firms to control their actual or forecasted costs incurred by a business operation. It allows business to predict impending expenditures and prevent over budget. Given that profit is the resultant effect of two varying factors, sales, and cost, the wider the gap between these two factors, the larger is the profit. Thus, profit can be maximized either by increasing sales or by reducing costs as ascertained by the management.

5.2 Recommendations

The study puts forward the following recommendations:

1. Those entrusted with the management of consumer goods firms should invest only in assets that will yield significant economic benefits in the future in order to attain efficient utilization of firm resources.
2. Operational managers of consumer goods firms should reduce their accidental cost incurred in sales by seeking for alternative supply of raw materials which are cheaper but at the same time of high quality.
3. Shareholders in listed consumer goods firms should encourage programmes that enhance training, development, and welfare of the staff since such investments make significant contribution to the firm performance.

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IMPLICATIONS OF MACROECONOMIC POLICY ON STOCK PRICES: EVIDENCE FROM NIGERIA (1970-2022)

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ABSTRACT

The paper investigated the implications of macroeconomic policies on stock market prices in Nigeria within the period spanning from 1970 to 2022. A robust economic policy is a determinant factor for investment decision for both fixed and financial assets. However, it appears that over the years, the macroeconomic indicators have not explained the performances of the stock exchange in general and stock prices in particular. The major objective of the study is to ascertain if macroeconomic policy had affected stock prices in the Nigeria Stock Exchange (NSE) both in size and magnitude during the reviewed period. The secondary sources of data were from the Central Bank of Nigeria Statistical Bulletin Various issues. Both descriptive and econometric statistics were employed for data analysis. The Ordinary Least Squares (OLS) time series data was used. The Augmented Dickey Fuller, ADF unit root test, URT, was employed to ascertain if the variables have unit root in order to avoid the simultaneity bias associated with the time series data. We further performed co-integration test to test for long -run relationship between the variables. The Autoregressive distributed lag test and correlation tests were also performed. The Pairwise Granger causality test was performed. Findings include that macro policies do not affect stock prices. We conclude that government policies have no effect nor have driven the

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prices of stock in the NSE. The implication of the finding is that stock market robustness could have been further boosted if proper macroeconomic policies had been put in place. The study therefore recommends that there is urgent need to review the existing macroeconomic policies to reflect the ideals of attractive and competitive stock prices in particular and the NSE performance in general. The indictors should be fine-tuned to engender the operations, performance, and ultimate development of the Stock Exchange.

KEY WORDS: *Macroeconomic policy, Stock Exchange, Macroeconomic variables, Stock prices.*

JEL CLASSIFICATION: E2, E3, E6, E61

1.0 INTRODUCTION

Stock prices remain an interesting example of an economic variable that can be realistic as well as predictable when there is a reliable macroeconomic policy theoretical base. This assertion cannot be overemphasized since decisions to invest are greatly determined by government policies. These policies are anchored in the macroeconomic variables. Variations and changes in these variables affect the stock market positively or adversely.

Weston (2007) asserts that stock is the type of equity security with which most people are familiar. When investors (savers) buy stock, they become owners of a "share" of a company's assets and earnings. If a company is successful, the price that investors are willing to pay for its stock will often rise and shareholders who bought stock at a lower price then stand to make a profit. If a company does not do well, however, its stock may decrease in value and shareholders can lose money. Stock prices are also subject to both general economic and industry-specific market factors.

Levine & Zerros (1996) observed that prior to 1995, non-Nigerians were prevented from investing directly in any sector of the Nigerian economy until the promulgation of the Nigerian Investment Promotion Commission Decree 16 (now Act). In addition to the Nigeria Investment Promotion Commission Decree, the foreign exchange Monitoring and Miscellaneous Provisions decree both of 1995, also aim at fostering foreign investment in Nigeria. Restriction in respect of the limit in the foreign shareholding in Nigeria registered/domiciled enterprises has been abolished. The only enterprises which are still exempted from free and unrestrained foreign participation are those involved in production of arms and ammunitions, production of and dealing in narcotic drugs and psychotropic substances.

The domestic (Nigeria) capital market and stock prices are susceptible to uncertainty resulting to instability of prices. Agbokor (2005) observed that no country can attract reasonable foreign investment in the face of unstable, undeveloped domestic market, and other socio-economic necessities. Successive governments have been half- hearted in addressing inadequacies in the macroeconomic variables over the years. Hence United Nation Conference on Trade and Development UNCTAD (2002) asserts that over the years, foreign investment in Nigeria has witnessed tremendous changes positively and negatively due to the activities of the international capital markets.

The Nigeria capital market has been witnessing buoyancy that was previously unknown. Henry (2001) posits that it is considered to offer one of the best dividends yields in the world. However, this scenario is sustainable if the macro economic variables are effective, efficient and reliable.

Macroeconomic policy or economic policy therefore refers to the tools used by the Monetary authorities to influence the economy of the country with a view to achieving desired objectives. Shaw (1983) opines that "macroeconomic policy attempts to assess the behaviour of the economy as a whole and seek ways in which its aggregate performance might be improved".

Basically, macroeconomic policy entails dual instruments- monetary and fiscal policies. The Central Bank of Nigeria (CBN) (2004) identifies “four major objectives- full employment, price stability, economic growth and balance of payments equilibrium”.

Keynes (1933) describes full employment as a" condition where there is absence of involuntary unemployment. In other words, this is a situation where everyone who desires to work gets engaged by getting employment". By stable prices, there is stable and predictable value of money over a time, eliminating cyclical fluctuations and gyrations leading to economic stability. Fluctuations in price undoubtedly lead to uncertainty and instability in the economy. Stabilizing prices involves some inherent problems such as ascertaining the price to be stabilized- whether consumer price, wholesale price, retail price, relative price, or general price levels. It is therefore recommended that the general price level should remain stabilized over a time period. Jhingan (2007) asserts that economic growth involves a gradual and sustained rise of the per capita income of a nation over a long period. It is calculated by the amount of goods and services produced in a country. There is growth when the productive muscle of the economy rises which, consequently, is used to produce more goods and services. In broad terms, economic growth is the raising of standard of living of the citizens and reducing inequalities in income distribution”.

The role of government policies especially macroeconomic policies in shaping investment decisions cannot be overemphasized. However, the extent to which these policies have influenced stock prices in Nigeria has been an unsettled debate in literature since gyrations, fluctuations, unpredictability, and unattractive returns characterize the stock prices over the years. This calls for investigation. Over the years it appears that the stock prices have not been triggered by government macroeconomic policies.

The study contributes to literature in two ways. The recommendations will no doubt provide the policy makers with policy framework that will form a

theoretical base for formulations and implementation of policies that will engender predictable, realistic, and competitive stock prices. It will also be a focal point for future research on stock prices in emerging economies, while bridging the existing gap in literature on the policy implication of stock prices in Nigeria.

The paper is structured in five sections as follows- following the introduction in section 1 is the literature review in section 2; sections 3 and 4 are the methodology, and result and analysis; respectively. Section 5 deal on the summary, conclusion, and recommendation

2.0 LITERATURE REVIEW

2.1 Conceptual Review

The four major macroeconomic policy variables and objectives are aimed at assessing the totality of the performance of the economy and seek how to improve it. It includes achieving full employment; achieving price stability; attaining economic growth and development and achieving balance of payments equilibrium. All these are measurable by the level of unemployment, rate of inflation or the consumer price index, growth in the gross domestic product and the balance of payment surplus or deficit, respectively. Each of these exerts some effects negatively or positively on the Stock Exchange and stock prices.

The growth rate of the gross domestic product is the rate at which the GDP grows annually. It may be a positive, no growth or negative growth as the case may be. The gross domestic product growth rate is the rate at which the GDP increases or decreases over time, especially annually. Sustained growth in the economy over time engenders investment and positively impacts on stock prices. Hassapisa and Kalyvitis (2002) found that GDP growth and stock prices reflect an economic performance. This rate is used instead of the Gross Domestic Product because it measures in real terms the actual increment or decrement of the GDP. Increased growth in GDP depicts positive influence in overall economy and the stock market is not excluded.

Inflation according to Johnson (1972) is generally opined to represent a continuous rising trend in the general price level over time. Notably, debtors gain at the expense of creditors during inflation. Although the debtor (the borrower) pays the same amount of money borrowed in absolute terms, to the creditor (the bank), real value is decreased as value of money falls. It then implies that inflation adversely affects the stock market and prices of stock.

Unemployment rate has three versions of definitions- the international labour Organization, ILO, harmonized definitions of the Organization for Economic Cooperation and Development OECD; and the national definition. The OECD harmonized definition asserts that the unemployment rate is the "number of unemployed persons as a percentage of the labour force". Also, the ILO asserts that "unemployed workers are those who are currently not working but are willing and able to work for pay, currently available to work and have actively searched for work". Suffice it to state that higher unemployment rate negatively impacts on the stock market and stock prices.
Balance of payments are the aggregate receipts and payments of all transactions of the country in a given time period usually a year. It can be favorable or unfavorable. The former engenders stock prices while the latter endangers such prices.

The study has its *a prori* expectation that macroeconomic policy should drive, trigger, and have a positive effect stock exchange performance in general and stock prices in particular in Nigeria. In order words, that the prices of stock are explained by the macroeconomic policies.

2.2 Theoretical Framework

John Maynard Keynes in his *General Theory of Employment, Interest and Money* published in 1936 vehemently criticized the Classical Theory assertion. He pointed out that the capitalist system was automatic and self adjusting because of the non-egalitarian structure of the economy. According to Keynes, there are two classes in the society-the rich and the poor. While the former possesses much wealth but do not spend the whole of it for

consumption, the latter lacks money to purchase consumption goods and services. Keynes therefore advocated State intervention for adjusting supply and demand within the economy through fiscal and monetary measures. Therefore, by extension, macroeconomic policies of government should be used to intervene in stable, competitive and predictable prices in general and stock prices in particular.

2.3 Empirical Review

Hassapisa and Kalyvitis (2002) in the study of the effect of the economic growth of G-7 countries on the stock returns found a negative relationship and insignificant effect of growth on stock returns.

Kim (2003) in a study found out that only a sign of real activity triggers stock returns rather that magnitude or size of the change in the GDP.

McMillan (2005) and Abugri (2008) studied the response of stock prices in terms of production. It was found that production has positive significant effect prices of stock. Reason being that increase in economic growth results to more cash outflows and inflows and leads to higher dividend expectation.

Merikas and Merika (2006) found that there is negative effect of growth on stock prices as the collinearity exists among the variables.

Olowe (2007) in the study of economic activity and stock prices asserts that the negative effect of GDP growth on stock prices is due to the neglect of industrial production in Nigeria.

Also, empirical studies imply negative relationship between inflation and stock prices. This is so since high rate of rising prices suggest uncertainty which means less returns of the stock returns and leads to low market valuation. These findings are in the works of Kyereboah- Coleman and Agrrey-Tettey (2008) for Ghana; Sohail and Hussain (2009), Mehr- un- Nisa and Nashat (2011) for Pakistan.

3.0 METHODOLOGY

3.1 Research Design

Employing annual data covering the period from 1970 to 2022 for Nigeria, data was sourced from the Central Bank of Nigeria CBN statistical bulletin (various issues). The dependent variable is stock price represented as StPr. The explanatory variables are the proxy for macroeconomic policy depicted as – balance of payments (BOP), gross domestic product growth (GDPgr), inflation (Inf), and unemployment rate (UNE).

The results of the tests interpreted form the basis of the research findings and enable the recommendations to be proffered in the study.

The model for this study is of the form:

$$L\Delta\ LStPr = \beta_0 + \beta_1 LBOP + \beta_2\ LGDPgr + \beta_3 LInf + \beta_4\ LR + \beta_5 LUNE + t \quad \ldots\ldots\ldots\ldots \quad (1)$$

where,

LStPr = stock prices and the dependent variable; LBOT= the balance of payments, LGDPgr = growth rate of the Gross Domestic Product GDP, LInf = Inflation , LUnE rate of unemployment, the explanatory variables are

L = log , β_0 = constant, β_1, β_2 = explanatory power of the variables, t = stochastic error term.

3.2 Techniques of Analysis

To achieve the objective of the study, the following tests were run; the descriptive statistics; the Augmented Dickey Fuller (ADF) Unit Root Test (URT); the correlation test, the autoregressive distributed lag; and - Granger Causality test- Pairwise Granger Causality Test

Descriptive Test

The mean, mode, standard deviation, kurtosis and probabilities and other descriptive statistical tests were adopted to establish a relationship between the regressors and the regressed variables.

3.3 Econometric Tests

Unit Root Test

As always, the case, the ordinary least squares, (OLS), statistic is employed for time series tests. Most times, the OLS can be associated with simultaneity bias and spurious influences. To circmvent this problem, it is important that the time series properties of the data set employed in estimation of the equations is ascertained. To test the stationary in order of the variables, the Augmented Dickey Fuller (ADF) unit root test is performed. The Unit Root Test is a series of statistics. Dickey and Fuller (1979) opines that "a series, say, X_t is said to be integrated of order *k,* that is, X_t [] $I(k)$, if it is stationary after differencing it *k,* times". When calculated t-ratio is less than the critical value (table value), the null hypothesis of unit root (non-stationary) is rejected in which case the level of time series X_t is characterized as integrated of order zero i.e. I (0). But if it is observed that the individual time series in the equation are integrated of order one I(1), then the series is said to be non stationary. If the variables are integrated of the same order I(1), we move a step further to employ the Johansen (1991) co integration test procedures to test the co -integration among the variables. Otherwise, if the variables are integrated of mixed order, the ARDL becomes applicable.

The ADF test is based on the following equation.

$$X_t = {}_o + {}_1 t + {}_{t-1} + \sum_{j-1}^{m} \mathbf{Y_j}\, X_{t-j} + {}_1 \quad \text{..... (2)}$$

where

X_t is integrating series (independent variable), is coefficient, $\mathbf{Yj}$ is integrating series (dependent variable), is the first difference operator; t is the time trend; ${}_o$ is a drift; ${}_t$ represents the linear time trend; *m* is the lag length; ${}_1$ is a white noise process.

Correlation test

We employed correlation analysis to enable us to establish if there is relationship existing between a pair of variables. Such a relation can be strong, weak, positive, or negative.

Autoregressive distributed lag test

Cromwell et al (1994) opine that ARDL is a "model for time series data where a regression equation is employed to predict present values of an observed variable based on both the current values of the independent variable and the lagged (past periods) values of the explanatory variable. opine that in statistics and econometrics, a distributed lag model is a model for time series data in which the regression equation is used to predict the current values of the dependent variables".

The starting point for a distributive lag model is an assumed structure of the form.

$$Y_t = \alpha + W_0 \chi_t + W_1 \chi_{t-1} + W_2 \chi_{t-2} + \ldots + W_n \chi_{t-n} + \in \ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Alternatively, the distributive lag model is

$$Y_t = \alpha + W_0 \chi_1 + W_1 \chi_{t-1} + W_2 \chi_{t-2} + \ldots + \in \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (4)$$

where, Y_t is the value at the time period t of the dependent variable y, α = the intercept term to be estimated, W_0 is the explanatory powers of the variables, χ_t = explanatory variable, W_1,W_2 are the lag weight, $\in$ = the error term

In the first equation, the regressed variable is affected by values of the explanatory variables arbitrarily in the past, so the number of lag model weights is infinite and therefore the model is called the infinite distribution model. On the other hand, in the second and alternative equation there are only a finite number of lag weights, indicating an assumption that there is a maximum lag beyond which values of the independent variables do not affect

the dependent variable. A model based on this assumption is described as a finite distribution lag model.

Pairwise Granger Causality Test

In the case where there is co-integration among the variables, we go a step further to construct the standard Granger causality test. In order to perform the test for Granger causality, we estimate the equations in the following form:

$$\Delta LMEP_t = \sum_{i=1}^{m-1} \beta \ \Delta LSTPR_{t-1} + \sum_{i=1}^{m-1} \delta_j \Delta LMEP_{t-j} + \varepsilon_t \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (5)$$

$$\Delta LMEP = \sum_{i=1}^{m-1} \beta \Delta LSTPR_{t-1} + \sum_{i=1}^{m-1} \lambda_j \Delta LMEP_{t-j} + \mu_1 \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (6)$$

where

$LSTPR_t$ is the log of stock prices; $LMEP$ is the log of macroeconomic policy i.e., GPDgr, Inf, UnE and BOP; μ_1 is the white noise disturbance term, ε is also the white noise disturbance term.

Next is to take a decision either to accept or reject the null hypothesis. We refuse to reject the null hypothesis where the probability value equals or is greater than 0.05. This is interpreted that there is no causal relationship (or that one variable does not Granger cause the other) between the variables. However, if the p-value (the probability) is less than 0.05, we reject the null hypothesis that there is no causality existing between the variables and so we refuse to reject the alternative hypothesis that one variable Granger cause the other. Thus if probability = or > 0.05, accept (do not reject) the null hypothesis, if probability < 0.05, reject (do not accept) the null hypothesis.

4.0 RESULTS AND ANALYSIS

4.1 Results

4.1.1 Descriptive Results

Table 1 Descriptive Results

	STPR	BOP	GDPGR	INF	UNE
Mean	272236.4	747938.1	4.400385	18.10000	2216.629
Median	1038.800	197.5000	4.200000	13.70000	15.19600
Maximum	1076020.	5951669.	33.70000	72.80000	116162.0
Minimum	16.60000	-563483.9	-13.10000	3.200000	6.975200
Std. Dev.	378131.8	1280275.	7.717386	14.49902	15952.61
Skewness	0.835460	1.736788	1.000188	1.988140	7.072405
Kurtosis	1.889280	6.384506	6.599869	6.686534	51.01902
Jarque-Bera	8.890034	51.94136	36.74788	64.92797	5533.867
Probability	0.011737	0.000000	0.000000	0.000000	0.000000
Sum	14428528	39640718	228.8200	959.3000	117481.3
Sum Sq. Dev.	7.44E+12	8.52E+13	3037.460	10931.52	1.32E+10
Observations	53	53	52	53	53

Source: Researchers' computation

The estimated mean value is employed to estimate the pattern of dispersal. The figures are 272236 for stock prices and 747939, 4.40, 18.1 and 2216 for balance of payments, GDP growth, inflation and unemployment rate respectively. The standard deviation depicts the variability from the mean or average value. The values shown in Table 1 above depicts that for stock prices

it stood at 378131 while for the explanatory variables, it is 1280275, 7.7, 14.4, 15952 respectively. It depicts that some variables have low variability such as GDP growth and inflation, while others have high variability such as stock prices, BOP, unemployment rate. In summary, all values are widely dispersed around the mean. This indicates that they are grossly affected by the extreme mean.

The values are also positively skewed with such values as 0.83 for the stock prices, 1.73, 1.00, 1.98 and 7.7 respectively for the independent variables.

For kurtosis can be flat or peak in terms of the normal curve. As it is well known, kurtosis measures the "tailedness" of the probability distribution of a real valued random variable. The decision rule is as follows- if kurtosis is equal to 3, it is concluded that it is normal distribution or mesokurtic; if kurtosis is less than 3 it is platykurtic; if kurtosis is greater than 3, it is leptokurtic.

Also, the variables depict reasonable level of association with probability significant at 0.05.
Jarque-Bera is used to measure the normality of the series, that is to say whether the series are normally distributed or not. Decision rule is that at 5% level of insignificance, the residuals are normally distributed.

Although the variables exhibit reasonable sign of association in the descriptive analysis, we also subject these claims to more econometric test to confirm these claims.

4.1.2 Econometric Results

Table 2 Unit Root test result

Variable	Intercept Only	Decision	Trend and Intersect	Decision
LStPr	-0.4103 (-2.9187)*	I(0)	-2.1247 (-3.4986)*	I(1)
LBOP	-2.37859 (-2.9187)	I(0)	-3.5085 (-1.7483)*	I(0)
LGDPgr	-2.9251 (1.92207)	I(1)	-3.5085 (-0.3104)*	I(0)
LInf	-2.9500 (-1.5639)	I(0)	-3.5236 (-2.1451)	I(0)
LUNE	-2.9389 (7.3517)	I(0)	-3. 5063 (2.0556)*	I(0)

* (**) *** Significant at 1% (5%) 10% level of significance

Source: Researchers' computation

In the table above the series are of mixed integration, the autoregressive distributed lag method is then adopted. In the above table, the series clearly show that the series integration are in mixed order, some in I(0) while some are in I(1). Therefore, the ARDL method becomes appropriate.

Table 3 Correlation Analysis

Orrelation s	**STPR**	**BOP**	**GDPGR**	**INF**	**UNE**
STPR	1				
BOP	0.7940	1			
GDPGR	0.0503	0.1545	1		
INF	-0.2512	-0.2197	-0.1374	1	
UNE	-0.1022	-0.0855	0.0569	0.2067	1

SOURCE: Researchers' Computation

Correlation analysis establishes the relationship existing between a pair of variables. Table 3 depicts the correlation results. From the results, the balance of payments exhibits very strong positive relationship with stock prices. It implies that both move together, hence as the balance of payments increases, stock prices become more attractive. The GDP growth shows a very weak positive relationship with stock prices while the rate of inflation and unemployment rate shows weak negative relationship with the dependent variable. This means that as inflation increases, stock prices become less attractive, and this discourages investment. The same is applicable to the high and soaring rate of unemployment.

Table 4 ARDL Result

Selected Model: ARDL (3, 1, 4, 4, 3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
STPR(-1)	0.841493	0.131568	6.395873	0.0000
STPR(-2)	-0.482202	0.203583	-2.368577	0.0263
STPR(-3)	0.609760	0.179224	3.402220	0.0023
BOP	0.042900	0.025614	1.674864	0.1069
BOP(-1)	-0.031509	0.022200	-1.419306	0.1687
GDPGR	-2374.777	1985.987	-1.195767	0.2435
GDPGR(-1)	4370.975	2191.753	1.994282	0.0576
GDPGR(-2)	1799.803	2296.258	0.783798	0.4408
GDPGR(-3)	14345.35	2468.661	5.810984	0.0000
GDPGR(-4)	-8232.678	2449.498	-3.360965	0.0026
INF	3604.039	2451.485	1.470145	0.1545
INF(-1)	642.6538	2368.416	0.271343	0.7884
INF(-2)	-1154.041	1657.887	-0.696092	0.4931
INF(-3)	3482.444	1655.663	2.103353	0.0461
INF(-4)	-2601.435	1282.322	-2.028691	0.0537
UNE	-0.433816	1.071734	-0.404779	0.6892
UNE(-1)	0.773226	0.941813	0.820997	0.4197

UNE(-2)	0.844035	0.905544	0.932075	0.3606
UNE(-3)	-2.742707	0.915919	-2.994486	0.0063
C	-57897.56	59536.36	-0.972474	0.3405

R-squared	0.978281	Mean dependent var	327683.1
Adjusted R-squared	0.961086	S.D. dependent var	392917.5
S.E. of regression	77509.22	Akaike info criterion	25.65714
Sum squared resid	1.44E+11	Schwarz criterion	26.46813
Log likelihood	-544.4570	Hannan-Quinn criter.	25.95789
F-statistic	56.89503	Durbin-Watson stat	2.115268
Prob(F-statistic)	0.000000		

*Note: p-values and any subsequent tests do not account for model selection.

Source: Researchers' computation

The R-squared value 0.97 and adjusted R squared of 0.96 shows that only 97 percent of stock prices competitiveness is accounted for by government policies. This confirms the significance of the explanatory variable to drive the dependent variable.

The coefficient of the explanatory variable BOP having an insignificant positive value of 0.04 has an insignificant effect on stock prices having a probability of 0.10. This implies that the balance of payments has a positive insignificance on stock prices. With regards to GDP growth which has a coefficient value of -2374 is insignificant having a probability of 0.2 greater than 5% level of significance. This depicts that GDPgr has a negative insignificant effect on the stock prices for unemployment rate, the coefficient of -0.43 and probability of 0.68 show negative impact on stock prices although insignificant. For inflation with coefficient of 3604 and a probability of 0.15 depicts positive insignificant relationship with stock prices.

Furthermore, we test for the existence of a long run relationship between the dependent variable and the explanatory variables. This is done by using the Wald test that all the coefficients of variations in levels are equal to zero. We draw a comparison between the estimated F-statistics with bounds and the F-critical or tabulated value. The 50%, 95%, 99% bounds critical F- value test bands for k=6 are (2.960-3.79), (3.12-4.25), (3.93-5.23) for model with both constant and trend. The calculated F-statistic is 56.8. This is greater than the bounds F- critical test. This indicates existence of a long-run relationship between the controlled variables and measured variables. The p-values of the explanatory variables are all greater than 0.05, which depicts that the explanatory variables significantly drive trade.

For the short run relationship, for there to be a long run relationship among the variables, the coefficients of the variables must be negative and be significant at 5% level of significance. using the one –lag period, the results depict that all the lagged variables are insignificant at 5% level.
From the above, we conclude the existence of long run relationship between the explanatory variables and the dependent variable.

Table 5. Pairwise Granger Causality Result

Null Hypothesis	F- statistic	Probability	Decision	Type of causality
LBOP≠>LSTPR	1.3641	0.2657	Not Rejected	No Causality
LSTPR≠>*LBOP*	8.2738	0.0604	Not Rejected	No Causality
LGDPgr ≠> *LSTP*	2.0337	0.1432	Not Rejected	No Causality
LSTP≠> LGDPgr	0.0238	0.1304	Not Rejected	No Causality

LINF	≠>	0.1390	0.8706	Not Rejected	No Causality
LSTPR					
LSTPR	≠	0.5765	0.5659	Not Rejected	No Causality
>LINF					
LUNE	≠	0.0462	0.9549	Not Rejected	No Causality
>LSTPR					
LSTPR	≠>	0.2616	0.7710	Not Rejected	No Causality
LUNE					

Source: Researchers' computation

We go further to perform the Pairwise Granger Causality test. It is a group and descriptive statistics. Table 5 depicts the results. The results as depicted in the table show an interesting finding. The probability of causality between balance of payments and stock prices is 0.26 and that of stock prices to balance of payments is 0.06. Both probabilities are greater than 0.05 and therefore suggest no causality.

In the same vein, the probability of causality between growth in the Gross Domestic Product and stock prices is 0.1432 and that of stock prices to growth in the Gross Domestic Product is 0.136. Both probabilities are greater than 0.05 and therefore suggest no causality.

Also, the probability of causality between inflationary trends and stock prices is 0.87 and that of stock prices to inflation is 0.56. Both probabilities are greater than 0.05 and therefore suggest no causality.

Finally, the probability of causality between unemployment rate and stock prices is 0.95 and that of stock prices to balance of payments is 0.77. Both probabilities are greater than 0.05 and therefore suggest no causality.

All the probability values for both variables are greater than 0.05. There is no causal relationship between the explanatory and dependent variables. Government policies have not driven the stock market and its prices. There is no causality between the stock prices and the macroeconomic indicators in Nigeria.

Taking together there is no causal relationship between macroeconomic policy variables and stock prices in Nigeria within the reviewed period. In summary the findings corroborate the findings in the study of G-7 nations by Hassapisa and Kalyvitis (2002); McMillan (2005) and also that of Abugri (2008)

In summary, there is no causality between balance of payments and stock prices. The reason is not in dispute. Unfavorable balance of payments is inimical to competitive prices generally and stock prices in particular. There is no causality between inflation and stock prices. Equally, general soaring of prices of goods and services is deterrent to the stock market, investment, stock prices and balance of payments. This reason is not far-fetched. Increment and soaring of prices of goods and services over time in the domestic economy is inimical to stock market performance. There is also no causality between unemployment rate and stock prices since investment is triggered by economic power, hence unemployed citizens cannot afford to invest in the stock market. Also, there is no causality between growth in the GDP as there is stagnant or zero growth in the GDP over time.

5.0 CONCLUSION AND RECOMMENDATION

This study is concerned with investigating the implications of macroeconomic policies on stock prices in Nigeria from 1970 to 2022. The descriptive and econometric statistics were adopted for data analysis. Results depict a long run relationship between the stock prices and macroeconomic variables. There is no causality between growth in GDP and stock prices; inflation and stock prices; unemployment rate and stock prices; balance of payments and stock prices.

5.1 Policy Implication of Findings

Macroeconomic policies put in place in the country are inimical to investment and therefore negated investment in stock market and therefore culminated to failing to drive competitive stock prices in the country. By extension performance of the NSE and stock prices could have been further boosted if proper price policies have been implemented. It is thus extended to mean that the policies so far implemented are not stock-prices friendly.

5.2 Recommendations

The recommendation includes that there is an urgent need to review the existing domestic price policies to reflect the ideals of competitive stock prices. The soaring inflationary trend, high and escalating unemployment rate, diminishing balance of payments resulting from the mono-product base of the nation's exports with its disastrous economic consequences should be monitored to restore confidence in the local and foreign investors. This will no doubt enhance and engender a more active performance of the Stock Exchange and further boost favorable investment decisions by investors and consequently attract competitive stock prices in the economy.

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EFFECT OF DIVIDEND PAYMENT ON FINANCIAL PERFORMANCE OF NIGERIA LISTED CONSTRUCTION FIRMS

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ABSTRACT

This study analysed the nexus between dividend payment and company's performance of listed construction companies in Nigeria. The study used the secondary data from the annual reports of the quoted construction companies in Nigeria. The independent variables of choice are the Dividend Payment measured by Cash Dividend (CDVND, and Dividend Payout Ratio (DPORT) and the control variable was measured by Leverage (LVRGE) while the dependent variable is Return on Equity (ROE). A nine (9) year period was covered, from 2012 to 2020. The annual report data were retrieved from the websites of the quoted construction companies. A Multiple Regression Analysis (the Dynamic Ordinary Least Square) was conducted with the aid of Statistical Program, Eviews version 12. The results of the study indicate that cash dividend payment has a positive and significant impact on return on equity (ROE), and it has a significant impact on Return on Equity (ROE)

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while dividend payment ratio has a negative relationship, and it has insignificant impact on Return on Equity (ROE). The study recommends that the Construction companies in Nigeria should increase their commitments in paying dividends as cash and this should be paid as at when due. This is because the cash dividend payment of the listed construction companies in Nigeria influences their financial performance positively and that the Management of Nigerian listed construction companies in Nigeria should avoid paying the dividend in other form as these scares away prospective investors thinking that such company is not financially buoyant. This is because the finding of this study revealed a negative and insignificant relationship of dividend payment on the financial performance of the listed construction companies in Nigeria.

Keywords: *Dividend Payment, Construction Companies, Cash Dividend, Olonite, Return on Equity, Leverage, Dividend Payout Ratio.*

1.0 INTRODUCTION

The debates on the nexus between dividend payment and performance of firms have been a subject of intense debate, which have fascinated the interest of financial thinkers and scholars over the years (Akinyomi 2013). It was argued by Powell (2000) that firms seldom prefer a sustainable accumulation of funds to executing a constant dividend payment, partially because excessive payment of dividend is intuitively conceived as cash outflow which may potentially increase bankruptcy risk of firms, especially amidst a high level of economic uncertainties. A company is established for the primary purpose of creating value for the owners in order to enhance their worth and the worth of the organization to potential investors in the securities market. Investors are always concerned and conscious of these facts and hence try to guide against uncertainties about the future value of their investments in choosing their investment portfolios.

Murmi, Sabijomo and Tulung (2019) affirm that investors are concerned about uncertainties in their investments and want safety and future value for such investment. Institutional and private investors alike always are

always conscious of future flow of returns that will guarantee their wealth maximization and growth in the value of the firms, which in effect will result into capital appreciation for them.

Adenugba, Ige & Keshinro (2016) opined that a firm with sustainable growth in profit and residual to the investors always achieve growth in value. This has positive effect on the attitude of the investors, where companies with fluctuating profitability always record fluctuations in value which do not guarantee investors achieving their main objective of wealth maximization. This affects shareholders attitude of investment diversification. Uwuigbe, Jafaru & Ajayi (2012) affirmed that firm value in the capital market is a function of the dividend policy in the organization. Dividend decision in the firm determines the funds flow to the investors and the retained funds in the firm for future growth and expansion. This form of liquidity position affects the value of the organization in the securities market.

Dividend is the reward that is attributable to the shareholders of corporate entity from their investment in the business through the provision of equity share capital. It is from the profit realized by the business at the end of the year that is either distributed as dividend or re-invested into the business as retained earnings. Whereas the shareholders would have loved greater part (if not all) of the profit made to be distributed to them as dividend, the management would prefer lower dividend to be distributed to the shareholders and larger part to be retained by the business for future investment and expansion. The issue of dividend policy in corporate organization in both developed and developing countries has been of great concern globally. Several theories have been proposed to explain the relevance of dividend policy and whether it affects firm value, but there has not been a universal agreement (Ashamu, Abiola & Badmus, 2008).

This is more so because managers as decision makers are often confronted with the "dividend puzzle" which is the problem of reconciling observed dividend behaviour with economic incentives (Adeyemi & Adewale, 2006). Hence, dividend policy is considered as a hinge around which other financial policies rotate. For this reason, it is central to the performance

and valuation of listed firms. Consequently, there has been an unresolved problem of dividend relevance and/or irrelevance in the determination of firms' performance and value. The question of whether manager should pay out more dividends to owners or retain more of the profit as internal source of financing has also remained unanswered (Zhou & Ruland, 2006).

Dividend Payout Ratio (DPR) is the cash inflow indicators that show the percentage or fraction of net income a firm pays out to its stockholders in dividends (Enekwe; Nweze & Agu 2015).

Firms' may choose to send all the profits back to their shareholders or keep a portion of it as retained earnings or re-invest in marginal net present value projects. Healthy dividends payouts show that firms are generating real income rather than cooking books (Barron, 2002 in Enekwe; Nweze & Agu 2015).

Investors are concerned about the dividend payout ratio because they want to know if companies are paying out a sensible and reasonable portion of net profit income to investors or not. For example, new companies and technology firms' hardly give dividends at all (Wanjiru 2015). A high dividend payout ratio means more dividends and fewer funds for expansion and growth but a low payout results in a higher growth (Pandy, 2012).

Firm's Performance means firm's overall financial health over a given period of time. Analysing the Financial Performance of a firm deals with the process of extracting some financial characteristics which are figures of a company's operations over a specific time which are got from their annual report. The aim of analysing the financial performance is to examine the effectiveness, efficiency and the level of resources usage and management of the firm. A Company tries to measure the financial strength in relation to profitability and liquidity, for certain period using some financial ratios as indicators in order to determine the trend of the business activities, if profitable or not since it is expected that the firm under review, has conducted the business activities in a normal and

rational way; thus, ensuring substantial and adequate returns to the shareholders so as to maintain the market value of the firm (Bhunia, Mukhuti & Roy, 2011).

Erasmus (2008) noted that financial performance measures like profitability and liquidity among others provide a valuable tool to stakeholders which aids in evaluating the past financial performance and current position of a firm. Financial performance evaluation is designed to provide answers to a broad range of important questions, some of which include whether the company has enough cash to meet all its obligations, is it generating sufficient volume of sales to justify recent investment. Capital structure is closely linked with financial performance (Zeitun & Tian, 2007).

The patterns of company dividend policies vary over time and from countries, particularly between developed, developing, and emerging capital markets. Studies relating to dividend policy have been filled with a lot of controversies on the relationship between firm's profitability and dividend policy, whether to pay high or low dividend, the portion of profit that should be invested and what portion of profit should be retained in the company (Akani & Sweneme, 2016)

Amidu (2007) observed that many firms are indecisive on whether to pay a large, small or zero percentage of their earnings as dividends or to retain them for future investments. This indecision becomes complicated as the management tries to satisfy the needs of the various stakeholders, such as the shareholders, bankers, employees, creditors and regulatory authorities amongst others. Thus, the need to ascertain the nature of the relationship between dividend payment and firm's performance of Nigerian construction firms necessitates the current study.

This primary objective of this study is to examine the nexus between dividend payment and firm's performance of quoted construction companies in Nigeria. The specific objectives are to:

i. examine the relationship between cash dividend and firms' performance of quoted construction companies in Nigeria.

ii. assess the relationship between dividend payout ratio and firms' performance of quoted construction companies in Nigeria.

In order to establish a valid argument concerning the objectives of this study, the following research questions are asked:

i. is there any significant relationship between cash dividend and firms' performance of quoted construction companies in Nigeria?
ii. is there any significant relationship between dividend payout ratio and firm's performance of quoted construction companies in Nigeria?

The hypotheses of this study are hereby stated in the null form (H_0):

$H_0$1: There is no significant relationship between cash dividend and firm's performance of quoted construction companies in Nigeria.

$H_0$2: There is no significant relationship between dividend payout ratio and firm's performance of quoted construction companies in Nigeria.

This study informs investors, public entities, private companies, the construction companies in Nigeria on how dividend payment of the construction firms impacts firm's performance. It also benefits the construction company's managers by informing them on the dividend payment decision, Federal Government and National Assembly by formulating favorable policies that is aimed at making the construction companies in Nigeria strive, students and academic researchers by contributing to the previous studies that can be used as a basis for future studies on the relationship between dividend payment and firms' performance of construction companies in Nigeria. The scope of this work captured the listed construction companies in Nigeria from 2012 to 2020. The data were extracted from the statement of financial position on the websites of the construction firms.

2.0 LITERATURE REVIEW

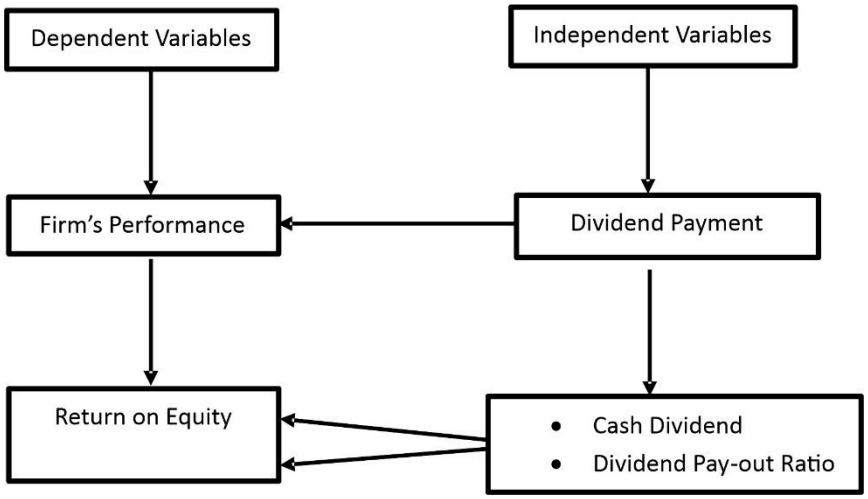
2.1 Conceptual Framework

2.1.1. Dividend Payment

Dividend policy has been defined by Eniola & Akinselure, (2016) as the approaches adopted by management to ensure that appropriate dividend payout/retention decision is taken at every available opportunity. Akani & Sweneme (2016) explained that dividend policy is a function of dividend payout ratio, ownership structure, capital market operations, inflation, and the legal framework. It can be residual, stable, or predictable policy, low regular plus extra policy, or regular payout. The dividend policy does not focus only on the current performance and prospects of the firm but also addresses the agency problems between the managers and the outside investors. The above factors support most of the empirical facts that the increase in dividends is a kind of good news resulting from increase in stock prices (Fairchild, 2010).

A company that declares cash dividend must ensure that it has sufficient cash to meet its requirements. Murekefu & Ouma (2012) explained that cash dividend announcement expresses important information which shareholders do not have about management's assessment of a firm's future profitability which reduces information irregularity. Such information can be made use of by investors in assessing the firms' financial performance and making investment decision. According to the opinions of principal-agent theory, there are still major flaws in the discussions over impudence of cash dividends on enterprise performance. Principal-agent theory sees cash dividends as a kind of governance mechanism that can relieve arising conflict and reduce agency costs from the perspective of testing interest conflict between shareholders and management (Jesen 1986 in Wang & Ruan 2016).

Figure 1. Conceptual Framework



Source: Author's Design, 2021

2.2 Firm's Performance

Firm's performance refers to a measure of a company's ability to generate revenue over a given period of time and it includes a subset of organizational effectiveness that covers operational and financial outcomes (Santos & Brito, 2012). Firm performance can be measured by the income generated by the company in terms of profitability (Murekefu & Ouma, 2012). Profitability is the operational fact of every profit-making organization. It constitutes the short and long-run management planning and operating strategies. Financial performance is used to indicate firm's success, conditions, and conformity. Shareholders, investors, creditors, managers are interested in knowing the financial performance of a firm before investing (Enekwe; Nweze & Agu 2015).

A firm's Performance can be measured by variables which involve productivity, profitability, growth or, even, customers' satisfaction. These measures are related among another other. Financial measurement is one of the tools which indicate financial strengths, weaknesses, opportunities,

and threats. Those measurements are return on investment (ROI), residual income (RI), earning per share (EPS), dividend yield, return on assets (ROA), growth in sales, return on equity (ROE), etc. (Stanford, 2009). Many indices are considered in the Firm's Performance measurement of various business entities by different scholars, and financial analysts often assess the firm's liquidity, solvency, efficiency, profitability, operating efficiency, and financial stability in both short-term and long-term. Analysis of the Accounting Ratios is used as an indicator to help in determining some fundamental issues, underlying the financial position of the firm. In order to measure the financial position and efficiency, the right financial performance indicators are needed, and this makes comparism easy. Generally, Return on Equity (ROE), Return on Assets (ROA), liquidity ratio, debt-equity, inventory turnover ratio and return on investment are important indicators in knowing the financial stability and performance of business entities (Bhunia, Mukhuti & Roy, 2011).

For this study, the Return on Equity (ROE) will be adopted as the firm's performance measures.
Return on Equity is a financial performance measure. It is derived by dividing the company's recorded net income by the company's shareholders' equity (Corporate Finance Institute, 2019).

2.3. Theoretical Review

Some basic theories have been used to support the relationship between dividend payment and firm's performance. They are the Signaling theory, Stakeholder theory, Bird in hand theory and Agency theory.

2.3.1. Signaling Theory

Managers use the change in cash dividends distributed rates as a mean to deliver information to investors about the company. The intuition underlying this argument is based on the information asymmetry between managers (insiders) and outside investors, where managers have private information about the current and future fortunes of the firm that is not available to outsiders. Here, managers are thought to have the incentive to communicate this information to the market. Bhattacharya (1979), John

and William (1985), and Miller & Rock (1985) argued that information asymmetries between firms and outside shareholders may induce a signaling role for dividends. They show that dividend payments communicate private information in a fully revealing manner. The most important element in their theory is that firms must pay out funds regularly. An announcement of dividends increase is taken as good news and accordingly the share price reacts favorably, and vice-versa. Only good-quality firms can send signals to the market through dividends and poor-quality firms cannot mimic these because of the dissipative signaling cost (for e.g. transaction cost of external financing, or tax penalty on dividends, distortion of investment decisions).

2.3.2. Bird in hand Theory:

This theory proposes that a relationship exists between firm value and dividend payout. It states that dividends are less risky than capital gains since they are more certain. Therefore, investors would prefer dividends to capital gains (Amidu, 2007). Because dividends are supposedly less risky than capital gains, firms should set a high dividend payout ratio and offer a high dividend yield to maximize stock price. The essence of the bird-in-the-hand theory of dividend policy (John Litner in 1962 & Myron Gordon in 1963) argues that outside shareholders prefer a higher dividend policy. Consequently, investors would value high payout firms more. In addition, when making dividend payouts, the firm gets a higher rating from rating agencies as compared to a firm not making any dividend payout. With a better rating, the firm will be able to raise finance more easily from capital markets since credit institutions will be willing to give loans to the firm since the payout of dividends shows that the firm has the ability to meet its obligations. In some cases, the firm will be able to borrow at preferential rates and enjoy better facilities.

This study will be anchored on the Signaling Theory and Bird in Hand Theory since they both show that dividend payments communicate private information in a fully revealing manner. The most important element in these theories is that firms have to pay out funds regularly. An announcement of dividends increase is taken as good news and accordingly the share price reacts favorably, and vice-versa. This study

focuses on the view that payment of cash dividend brings more investors as it will send a positive signal to prospective investors in respect to the firm's performance.

2.4. Review of Empirical Studies

Williams and Duro (2019) investigated the impact of dividend policy on performance of quoted companies in developing companies. The study covered eleven years and used pooled OLS with no underpinning theory. They found out that dividend payout impact on return on asset but did not extend the study to stock price in the market, which this study fills.

Odesa (2020) studied the determinants of dividend policy in quoted companies in Nigeria, and found out that debt, return on equity, shareholders structure and dividend paid have significant relationship with dividend policy, but did not extend the study to cover stock market price.

Lucky & Uzokwe (2019) studied dividend policy and value quoted firms in Nigeria by testing the theory of Miller and Modigliani by using 20 quoted companies selected for a period of 10 years. They examined the irrelevant hypotheses using TobinsQ measure. They established that dividend per share, earnings per share, firms rate of return and firm's cost of capital have relevance to market share price and nullified the irrelevant hypothesis of Miller and Modigliani. Though their study was on market share determination, this study did not study irrelevant hypothesis, but the relevance of dividend paid on share market price.

The study of Olonite, Okoro & Ibrahim (2021) examined the relationship between asset structure and financial performance on construction companies in Nigeria. The study used the secondary data retrieved from the various websites of the quoted construction firms in Nigeria from 2012 to 2018. A document review guide was used to collect the secondary data that are fit for the study from the financial statements of the quoted construction firms under study. The financial performance was analysed using Return on Asset (ROA) and Earnings per Share (EPS), this formed the dependent variables. The independent variable adopted was the asset

structure measured using the Fixed and Current Asset. The variables were validated by conducting descriptive statistics, correlation test and the unit root test using the Augmented Dickey Fuller (ADF). Two simple regression models were employed for the study and were analysed with the aid of a statistical program (Eviews 11). The results of the study indicated that fixed asset have a positive and significant impact on return on asset. Also, the study found that current assets have positive and significant impact on earnings per share. The study recommends that the construction firms should limit debtors as it greatly affects the current asset, invest more money in fixed assets as this will also increase the profitability of the firms and will in the long run maximize the return on asset (ROA) and Earnings per Share (EPS) and firms should avoid keeping non-performing funds. Olonite et al. (2021) used the construction companies but not the variables for dividend payment as they only focused on the asset structure.

Ijaiya, Sanni, Amujo & Suleiman (2013) investigated the relationship between financial performance and dividend payout among listed firms in Nigeria using two models. Two models were developed to provide a theoretical exposition on the birds-in-hand dividend relevance theory and the Modigliani and Miller's (MM) dividend irrelevance theory. The study used ex-post facto research design to collect data from the annual reports of the sampled quoted firms and analyzed using panel data regression model. The first model finding showed an insignificant relationship between dividend payout ratio and financial performance of the selected quoted firms in Nigeria while the result from the second model showed significant but inverse relationship between dividend payout ratio and earnings per share. The study recommended that for an increase in internal finance, market valuation and long-term maximization of shareholder wealth, firms should maintain a reduced but stable dividend payout.

Abiola (2014) examined the effects of dividend policy on profits and growth of the Nigerian banks. The study used the structured questionnaire to derive data from employees of Eco Bank Plc. The hypotheses formulated were tested using a chi-square statistical tool. The findings revealed that there is a significant relationship between the dividend

policy and profitability in the banking industry. The study recommended that dividend payment of the banking industry should not be delayed ensuring more investors invest in the banking sector.

Turakpe & Filwe (2017) on Dividend Policy and Corporate Performance used a multiple regression model analysis to obtain the study's results. The study used the dividend payout, return on equity, profit after tax and earnings per share as both the independent and dependent variables respectively. The study used data collated from annual reports and financial statements of the selected firms and adopted multiple regression model to examine the selected companies namely Nigerian Breweries Plc, Zenith Bank Nigeria Plc and Guaranty Trust Bank Plc from 2011-2015. The result showed no general conclusion between the effect of dividend policy and corporate performance because of the varying results.

Adediran & Alade (2013) studied Dividend Policy and Corporate Performance using dividend payout, return on capital employed, fixed assets and earnings per share. The study found a positive relationship between dividend policies of organizations and profitability. The result also showed a significant positive relationship between the dividend policy, investments, and Earnings per Share.

Enekwe, Nweze & Agu (2015) studied the effect of dividend payout on performance evaluation of quoted cement companies in Nigeria stock exchange for twelve (12) year's period from 2003 to 2014. The study used four variables for the analyses: Dividend Payout Ratio (DPR); Return on Capital Employed (ROCE); Return on Assets (ROA) and Return on Equity (ROE). Return on Capital Employed (ROCE); Return on Assets (ROA) and Return on Equity (ROE) were proxies for Performance evaluations as dependent variables while dividend payout ratio (DPR) was a component for independent variable. Through secondary sources, data used was obtained from the annual reports and financial statements of the selected quoted cement companies in Nigeria on Nigerian Stock Exchange. The research design adopted was ex-post facto. The results showed statistically significant effect between dividend payout ratio, return on capital employed and return on asset while dividend payout ratio

has insignificant effect on return on equity of quoted cement companies in Nigeria. The study maintained that management should adopt optimal dividend policy that would better shareholders both in the short-run and long-run; the study also recommended management to design a dividend policy that will enhance firm's performance and shareholder value; maximize the value of the company and attract more investors.

Ruan (2016) researched Internal Control, Cash Dividends and Enterprise Performance based on Economic Consequences. The study concluded that internal control and cash dividend contributed to the improvement of both short-term and long- term enterprise performance.

Monogbe & Ibrahim (2015) in Nigeria examined the relationship between dividend policy and firm corporate profitability, Investment and Earning per Shares. The result indicated a positive and significant association between the firm performance and dividend policy of the sample firms. The findings also showed that there was a strong and positive significant relationship between ROCE, ASST and the dividend policy. ROCE was used in proxy of profit of the firm after tax while ASST is used in proxy of investment of the firm. While EPS shows a positive impact on the firm dividend policy. Also, they recommended adequate monitoring and supervision by the firm to ensure prudency and proper accountability.

Simon-Oke & Ologunwa (2016) studied the effect of dividend policy on performance of corporate firms in Nigeria using ROI, EPS and DPS. The findings reveal that dividend policy has a strong positive relationship between strong dynamic variables return on investment (ROI), earnings per share (EPS) and dividend per share (DPS) in Nigeria.

In Kenya, Murekefu & Ouma (2012) support the dividend relevant advocates. Their study examines the relationship between dividend payout and the performance of firms measured by net profit after tax for the period 2002 and 2010. The study uses regression analysis to run the secondary data gathered from the financial statement of 41 listed companies and the findings show that dividend payout is a major factor affecting firms' performance, thereby support the bird-in-hand theory;

that investors will appreciate what they can see as real earnings (in form of cash dividend) than accumulated wealth which can be affected by inflation.

In Pakistan, Khan (2012) examined the effect of dividend announcements on stock prices of companies within the chemical and pharmaceutical industry of Pakistan. A sample of twenty-five companies listed at KSE-100 Index was taken from the period of 2001to 2010. Results of the study was based on the Fixed and Random Effect Model which was applied on Panel data to explain the relationship between dividends and stock prices as well as control variables such as earnings per share, retention ratio and return on equity. Results indicated that cash dividends, retention ratio and return on equity has a significant positive relationship with stock market prices and significantly explains the variations in the stock prices of the chemical and pharmaceutical sector of Pakistan, while earnings per share and stock dividends have a negative insignificant relationship with stock prices. The study further showed that the dividend irrelevance theory was not applicable in the case of the chemical and pharmaceutical industry of Pakistan.

Gwaya & Mwasa (2016) in their study, examined how dividend policies of selected public limited companies in Kenya affect financial performance during the period 2002-2011. The study used a sample of 29 companies listed on the Nairobi Stock exchange. The findings of their research established that dividend policy of firms has an effect on its subsequent financial performance.

The research design approach adopted for this study is the Ex-post Facto, this is as a result of the fact that the data are readily available, the Olonite Proportional Allocation Method (OPAM) and the Olonite Sampling Technique (OST) was used to sample the available data. This design was used to examine the relationship between dividend payment and firm's performance of quoted construction firms in Nigeria. The Population is 7 quoted construction companies listed on the Nigeria Exchange Group website as at 21st of September 2021. The data were retrieved from the annual reports and accounts of the sampled construction firms in the

Nigerian Stock Exchange Fact Book. They were retrieved from the website of the selected listed construction companies in Nigeria. The statistical method adopted was the multiple regression analysis, and before performing the regression estimations, the correlation analysis was performed using the Correlation Matrix to see any possible linear correlation between the variables. DF = n – 1 and 5, where DF = Degrees of freedom at 1% and 5% level of significance were used to validate the data and test the research hypotheses. The regression analyses to be used is the Dynamic Ordinary Least Square (DOLS) of Eviews 12; it is most suited for this study since it is a powerful technique used for predicting the unknown value of a variable from the known value of two or more variables (Cox, 2015). In an attempt to establish empirical evidence on the relationship between dividend payment and firm's performance of quoted construction firms in Nigeria, in-line with Kajola and Adewunmi

(2017) Model, ROA = f (DPO, LEV) …1
ROI = $\beta 0 + \beta 1DPO + \beta 2LEV\ \mu$ …2

Where:

ROI = Return on Asset (proxy for firm's profitability)
DPO = Dividend Payout (proxy for dividend policy)
LEV = Leverage (proxy for control variable)
Kajola and Adewunmi (2017) model was modified by making the

dependent variable Return on Equity and expanding by adding to the independent variable Dividend Payout Ratio and Cash Dividend while Leverage was used as a control variable, we then have thus:
$ROE_t = \alpha_0 + \beta 1CDVND_t + \beta 2DPORT_t + \beta 3LVRGE_t + \varepsilon_t$… 3

Where:

ROE= Gross Domestic Product (proxy for economic growth)
α_0 = Coefficient of the constant variable
$\beta 1$ & $\beta 2$ = Regression of the coefficient of the independent variable
$\beta 3$ = Regression of the coefficient of the control variable
CDVND = Cash Dividend

DPORT = Dividend Payout Ratio
LVRGE= Leverage
ε = the error term which account for other likely factors which could influence firm's performance that are not already captured in the model. It is also known as Epsilon.
t = at time t (annual time series)

The apriori expectations of the variables are given as (β1, β2, > 0) i.e., CDVND > 0, and DPORT > 0. This implies that the independent variables are expected to have a positive impact on the dependent variable. Diagnostic test was carried out to ensure the goodness of fit of the model. The variables of the study consist of the dependent variable: Firm's Performance measured by Return on Equity and the independent variable: Dividend Payment measured by Cash Dividend (CDVND) and Dividend Payout Ratio (DPORT) while the control variable measured by Leverage (LVRGE). The Dynamic Ordinary Least Square (DOLS) accommodates robust data and can easily solve the problems of outliers which are most suited for robust data. The Eviews 12 Statistical tool was used for the analysis because the version is the latest developed and released by the Quantitative Micro Software (QMS).

3.0 RESULTS

3.1 DATA PRESENTATION

This section presents the Annual Reports of both individual and Summed-UP-Total annual data of the listed construction companies in Nigeria.

Table 1. Annual Data for Arbico Plc from 2012 – 2020

COMPANY	YEARS	DEPENDENT VARIABLE		INDEPENDENT VARIABLES		CONTROLVARIABLE
		ROE		CDVND PRT	DPORT	LVRGE
ARBICO PLC	2020	1	0.43406	0.23301	0.83072	0.00755
	2019	1	0.30376	0.33446	0.63271	0.01384

	2018	1	0.16220	0.20719	0.54334	0.28730
	2017	1	0.12922	0.23408	0.62218	0.00498
	2016	1	0.12011	0.24323	0.52811	0.00644
	2015	1	0.12649	0.22154	0.44259	0.00437
	2014	1	0.12843	0.21806	0.85708	0.00734
	2013	1	0.12613	0.54664	0.91813	0.07678
	2012	1	0.17626	0.22016	0.41995	0.03443

Source: Arbico Plc Annual reports and Authors Computation, 2021

Table 1 shows that the ROE is not stable for 2020, 2019, 2018 and 2012, however, in 2017, 2016, 2015, 2014 and 2013, the figures are seen not to have been stable, having the figures 0.12922, 0.12011, 0.12649, 0.12843 and 0.12613 respectively. Cash Dividend Payout Ratio (CDVND PRT) also maintains a stable trend from 2018 through 2014 but in 2019 and 2013, the figures are not stable as they have 0.33446 and 0.54664 respectively. The Dividend Payout Ratio (DPORT) does not maintain a stable trend from 2020 through 2012 as the figures have 0.83072, 0.63271, 0.54334, 0.62218, 0.52811, 0.44259, 0.85708, 0.91813, 0.41995 and lastly, for the Leverage (LVRGE), it also does not maintain a stable trend from 2020 through 2018 but in 2017, 2016, 2015 and 2014, the figures are stable as they have 0.00498, 0.00644, 0.00437, and 0.00734 respectively.

Table 2. Annual Data for Julius Berger Plc from 2012 – 2020

JULIUS BERGER NIG. PLC	2020	2	0.19090	0.21554	0.87919	0.02286
	2019	2	0.08481	0.24457	0.65605	0.09414
	2018	2	0.12648	0.22463	0.71304	0.03569
	2017	2	0.12654	0.21282	0.63296	0.00194
	2016	2	0.13424	0.18811	0.51354	0.07326

	2015	2	0.77480	0.19186	0.65131	0.08138
	2014	2	0.50533	0.78892	0.91107	0.00054
	2013	2	0.42754	0.89572	0.90427	0.05440
	2012	2	0.25897	0.85568	0.94431	0.65545

Source: Julius Berger Nig. Plc Annual reports and Authors Computation, 2021

Table 2 shows that the ROE is not stable for the years 2020, 2019, 2018, 2017 through 2012 having the figures 0.19090, 0.08481, 0.12648, 0.12654, 0.13424, 0.77480, 0.50533 and 0.42754 respectively. Cash Dividend Payout Ratio (CDVND PRT) maintains a stable trend from 2020 through 2017 but changes in 2016 through 2012 as they have 0.18811, 0.19186, 0.78892 and 0.89572 respectively. The Dividend Payout Ratio (DPORT) does not maintain a stable trend from 2020 through 2012 as the figures are seen to have fluctuated having 0.87919, 0.65605, 0.71304, 0.63296, 0.51354, 0.65131, 0.91107, 0.90427, 0.94431 respectively and lastly, for the Leverage (LVRGE), it also does not maintain a stable trend from 2020 through 2018.

Table 3. Annual Data for SFS Real Investment Trust from 2012 – 2020

SFS REAL ESTATE INVESTMENT TRUST	2020	3	0.16803	0.13072	0.28143	0.50948
	2019	3	0.23075	0.13271	0.50376	0.86993
	2018	3	0.19416	0.14334	0.30588	0.05548
	2017	3	0.03217	0.12218	0.33395	0.83554
	2016	3	0.03359	0.12811	0.32238	0.03228
	2015	3	0.36356	0.14259	0.35265	0.87562
	2014	3	0.36162	0.15708	0.37233	0.78597
	2013	3	0.27698	0.11813	0.63329	0.28944
	2012	3	0.23411	0.11995	0.70335	0.68396

Source: SFS Real Investment Trust Annual reports and Authors Computation, 2021

Table 3 shows that the ROE is not stable for the years 2020, 2019, 2018, 2017 through 2012 having the figures 0.16803, 0.23075, 0.19416, 0.03217, 0.03359, 0.36356, 0.36162, 0.27698 and 0.23411 respectively. Cash Dividend Payout Ratio (CDVND PRT) does not maintain a stable trend from 2020 through 2012 as the figures stand at 0.13072, 0.13271, 0.14334, 0.12218, 0.12811, 0.14259, 0.11813, 0.15708 and 0.11995 respectively. The Dividend Payout Ratio (DPORT) maintains a stable trend from 2018 through 2014 as the figures are seen to be 0.30588, 0.33395, 0.32238, 0.35265 and 0.37233 respectively and lastly, for the Leverage (LVRGE), it also does not maintain a stable trend from 2020 through 2018 as the figures stand at 0.50948, 0.86993, 0.05548, 0.83554, 0.03228, 0.87562, 0.78597, 0.28944 and 0.68396 respectively.

Table 4. Annual Data for Smart Products Nigeria Plc from 2012 – 2020

SMART PRODUCTS NIGERIA PLC	2020	4	0.26221	0.23373	0.76626	0.04333
	2019	4	0.32234	0.42938	0.71061	0.79406
	2018	4	0.26036	0.19268	0.20731	0.06553
	2017	4	0.31099	0.25098	0.74901	0.05215
	2016	4	0.28785	0.38298	0.71701	0.07957
	2015	4	0.24720	0.28405	0.41594	0.05884
	2014	4	0.36765	0.48596	0.71403	0.68339
	2013	4	0.27727	0.38105	0.61894	0.45337
	22012	4	0.32413	0.26592	0.53407	0.87945

Source: Smart Products Nigeria Plc Annual reports and Authors Computation, 2021

Table 4 shows that the ROE is not stable for the years 2020, 2019, 2018, 2017 through 2012 having the figures 0.16803, 0.23075, 0.19416, 0.03217, 0.03359, 0.36356, 0.36162, 0.27698 and 0.23411 respectively. Cash Dividend Payout Ratio (CDVND PRT) does not maintain a stable

trend from 2020 through 2012 as the figures stood at 0.13072, 0.13271, 0.14334, 0.12218, 0.12811, 0.14259, 0.11813, 0.15708 and 0.11995 respectively. The Dividend Payout Ratio (DPORT) maintains a stable trend from 2018 through 2014 as the figures are seen to be 0.30588, 0.33395, 0.32238, 0.35265 and 0.37233 respectively and lastly, for the Leverage (LVRGE), it also does not maintain a stable trend from 2020 through 2018 as the figures stand at 0.50948, 0.86993, 0.05548, 0.83554, 0.03228, 0.87562, 0.78597, 0.28944, 0.68396, 0.45337 and 0.87945 respectively.

Table 5. Annual Data for Union Homes Real Estate Investment Trust from 2012 – 2020

UNION HOMES REAL ESTATE INVESTMENT TRUST (REIT)	2020	5	0.08133	1.23072	0.55322	0.05221
	2019	5	0.08302	0.13271	0.52924	0.53546
	2018	5	0.15534	0.14334	0.56973	0.13053
	2017	5	0.08796	0.12218	0.59473	0.39656
	2016	5	0.08772	0.12811	0.50153	0.06382
	2015	5	0.08636	0.14259	0.52969	0.09360
	2014	5	0.08394	0.15708	0.58596	0.94649
	2013	5	0.08009	0.11813	0.59407	0.30533
	2012	5	0.08997	0.11995	0.53424	0.56494

Source: Union Homes Real Estate Investment Trust Annual reports Authors Computation, 2021

Table 5 shows that the ROE is stable for the years 2020, 2019, 2017 through 2013 having the figures 0.08133, 0.08302, 0.08796, 0.08772, 0.08636, 0.08394, 0.08009 and 0.08997 respectively. Cash Dividend Payout Ratio (CDVND PRT) does not maintain a stable trend from 2020 through 2012. The Dividend Payout Ratio (DPORT) maintains a stable trend from 2020 through 2012 as the figures are seen to be 0.55322, 0.52924, 0.56973, 0.50153, 0.52969, 0.58596, 0.59407 and 0.53424 respectively and lastly, for the Leverage (LVRGE), it also does not maintain a stable trend from 2020 through 2012.

Table 6. Annual Data for UPDC Plc from 2012 – 2020

UPDC PLC	2020	6	0.11995	0.16954	0.23795	0.28494
	2019	6	0.11813	0.12839	0.37304	0.64936
	2018	6	0.15708	0.34373	0.52638	0.70024
	2017	6	0.14259	0.17484	0.65544	0.784948
	2016	6	0.12811	0.29447	0.59316	0.49027
	2015	6	0.12218	0.41348	0.60623	0.60014
	2014	6	0.14334	0.53925	0.98346	0.67026
	2013	6	0.13271	0.35930	0.84859	0.51125
	2012	6	0.13072	0.23354	0.68796	0.41033

Source: UPDC Annual reports, Authors Computation, 2021

Table 6 shows that the ROE is stable for the years 2020, 2019, 2017 through 2013 having the figures 0.11995, 0.11813, 0.15708, 0.14259, 0.12811, 0.12218, 0.14334, 0.13271 and 0.13072 respectively. Cash Dividend Payout Ratio (CDVND PRT) does not maintain a stable trend from 2020 through 2012. The Dividend Payout Ratio (DPORT) does not also maintain a stable trend from 2020 through 2012 as the figures are seen to be 0.23795, 0.37304, 0.52638, 0.65544, 0.59316, 0.60623, 0.98346, 0.84859 and 0.68796 respectively and lastly, for the Leverage (LVRGE), it also does not maintain a stable trend from 2020 through 2012.

Table 7. Annual Data for UPDC Real Estate Investment Trust from 2012 – 2020

UPDC REAL ESTATE INVESTMENT TRUST	2020	7	0.28745	0.18746	0.58869	0.23296
	2019	7	0.28853	0.69434	0.89605	0.86942
	2018	7	0.29147	0.45330	0.57336	0.79400
	2017	7	0.25273	0.64752	0.90332	0.69309
	2016	7	0.20923	0.44999	0.54700	0.24953
	2015	7	0.24070	0.24045	0.70494	0.94048
	2014	7	0.23625	0.13424	0.30548	0.82937
	2013	7	0.22323	0.47533	0.70224	0.59203
	2012	7	0.21232	0.32249	0.63026	0.58497

Source: UPDC Real Estate Investment Trust Annual reports & Authors Computation, 2021

Table 7 showed that the ROE is stable for the years 2020, 2019, 2017 through 2012 having the figures 0.28745, 0.28853, 0.29147, 0.25273, 0.20923, 0.24070, 0.23625, 0.22323 and 0.21232 respectively. Cash Dividend Payout Ratio (CDVND PRT) does not maintain a stable trend from 2020 through 2012. The Dividend Payout Ratio (DPORT) does not also maintain a stable trend from 2020 through 2012 as the figures are seen to be 0.58869, 0.89605, 0.57336, 0.90332, 0.54700, 0.70494, 0.30548, 0.70224 and 0.63026 respectively and lastly, for the Leverage (LVRGE), it also does not maintain a stable trend from 2020 through 2012.

Table 8: Variable Data of the Listed Construction Firms in Nigeria from 2012 - 2020

Year	ROE	CASH DIVIDEND PAYOUT RATIO	DIVIDEND PAYOUT RATIO	LEVERAGE
2012	2.27592	1.13769	4.55433	3.81353
2013	1.43134	1.89435	5.01949	2.28264
2014	1.34709	1.47877	4.83238	3.92336
2015	1.18221	1.63656	4.00329	2.65443
2016	1.23085	1.81533	3.32343	1.28569
2017	2.11129	1.76465	4.89159	2.76920
2018	1.86588	2.50821	3.13904	2.06877
2019	1.93095	2.69656	4.10146	3.82621
2020	1.56038	2.74007	4.13746	1.15331

Source: Selected Construction firms Annual reports (2012 – 2020) Authors Computation, 2021

Note: Return on Equity formulae: Net Income / (Start Equity + End Equity) / 2.

Cash dividend formulae: Annual net income minus net change in retained earnings = dividends paid.

Dividend Payout Ratio formulae: Total Dividend Paid / Net Income.

Leverage Formulae: Total Debt / Total Equity.

Table 8 above shows the values of the data extracted from the Annual Reports of the listed construction companies for a period of 9years. The

figures are for the Return on Equity, Cash Dividend Payment, Dividend Payout Ratio and Leverage.

Return on Equity (ROE) figures have not been stable as seen in 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 and 2020 having 2.27592, 1.43134, 1.34709, 1.18221, 1.23085, 2.11129, 1.86588, 1.93095 and 1.56038 respectively. This shows us the levels of return on the aggregate equity of the listed construction companies in Nigeria in the years under review. The Cash Dividend Payout Ratio figures increased as seen in 2018, 2019 and 2020 having the values 2.50821, 2.69656 and 2.74007 respectively.

In 2013, the Dividend Payout Ratio increased to 5.01948 from 4.55433 and further reduced to 4.55433; however, it increased in 2017, 2019 and 2020 having the figures 4.89159, 4.10146 and 4.13746 respectively.

The Leverage values as shown in Table 8 stood at 3.81353, 2.28264, 3.92336, 2.65443, 1.28569, 2.76920, 2.06877, 3.82621 and 1.15331 in the years 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 and 2020 respectively.

3.2 DESCRPTIVE STATISTICS

Table 9: Descriptive Statistics of the annual reports of sampled listed construction companies.

	ROE DV	**CDVND IV**	**DPORT IV**	**LVRGE IV**
Mean	0.10960	8.04329	4.03095	0.279392
Median	0.09944	8.48534	1.87342	0.142784
Maximum	0.18392	8.55403	2.98403	1.130568
Minimum	0.08694	7.04666	1.45534	0.122488
Std. Dev.	0.05795	5.76703	2.70694	3.675960
Skewness	1.75550	1.46604	1.82603	2.037645
Kurtosis	1.15305	1.86603	2.67642	1.157675
Jarque-Bera	5.57702	3.45900	5.08055	6.200604

Probability	0.05005	0.45400	0.23324	0.045646
Sum	0.86302	5.08122	1.52544	1.956353
Sum Sq. Dev.	0.00499	1.41111	1.98302	0.846775
Observations	63	63	63	63

Source: Eviews 12 result

Table 9 provides the summary of the descriptive statistics of the sampled construction companies, they are the mean, median, maximum, minimum, standard deviation, skewness, kurtosis, Jarque-Bera, Probability, Sum of Error mean, sum of squared deviation and the observation from 2012 through 2020. Firstly, Cash Dividend has the highest mean of 8.04 while Return on Equity (ROE) has the least mean of 0.10. Also, Cash Dividend has the highest maximum value while Return on Equity (ROE) has the lowest value of 8.55403 and 0.18392 respectively.

The standard deviation shows the level of volatility in the variable. As seen in table 9, the Cash Dividend is the most volatile at 5.76703 while Return on Equity (ROE) is the least volatile having the value 0.05795.

Skewness measures the asymmetry of the probability distribution of a real-valued random variable about its mean. If the value is greater than zero it is positively skewed and if the value is less than 0, it is negatively skewed. All the data are positively skewed having the values of 1.75550, 1.46604, 1.82603 and 2.037645 respectively.

Kurtosis measures the normality of a distribution. According to the Eviews 12 Guide, 2020, the range for Kurtosis is -3 to + 3. Any value greater than +3 is a sign of outliers. Looking at our kurtosis figure in table 3, it can be seen that all the data have values less than 3. This means the data are normally distributed.

3.3 TEST OF STATIONARITY (UNIT ROOT TEST)

Table 10: Augmented Dickey Fuller (ADF)

Date: 22/09/2021; Time: 14:22

Variables	IN LEVEL I(0) (ADF)	FIRST DIFFERENCE I(1) (ADF)	Order of Integration
ROE	-1.459304	-2.589405***	I(1)
CDVND	-2.685884	-1.239340***	I(1)
DPORT	-1.536993	-2.547884***	I(1)
LVRGE	-1.472948	-7.426003***	I(1)

Source: Eviews 12

**** level of significance at 5%, ** level of significance at 1%.*

The test of stationarity is important to avoid the problem of spurious regression. This is an important step in time series analysis which has an impact on the results. It is used to test the order of integration. The unit root test in table 10 was performed at the in level and also at the first difference to establish the presence of a unit root test and the order of integration. The Akaike Info Criterion and the Schwarz Criterion were used to determine the appropriate lag order of the adopted variables. AIC was used for the response variables while the SIC was used for the explanatory variables. The result of the ADF test shows that the data are integrated at first difference. This indicates that the adopted variables are fits to be used for the regression analysis.

3.3.1. Correlation Matrix of the Variables (Dependents and Independents)

Table 11: The Sampled Listed Construction Companies Correlation Matrix

Date: 22/09/2021; Time: 18:45

Variables	ROE	CDVND	DPORT	LVRGE
ROE	1.47527 1.000000000			
CDVND	7.65034 0.523232263	1963.015 1.000000000		
DPORT	2.13045 0.382212652	5901.127 0.918887777	6849.786 0.784955441	2095.122 1.000000000
LVRGE	3.85049 0.596076676	6320.939 0.859445443	8759.786 0.686968868	5844.786 1.000000000

*Source: Computed using Eviews 12 at *** 5% level of significance*

From the Correlation matrix result in table 11 above, the matrix suggests the existence of positive correlation between Return on Equity (ROE) and Cash Dividend Payment (CDVND), Dividend Payout Ratio (DPORT) and Leverage (LVRGE) having a correlation coefficient of 0.5, 0.3 and 0.5. This suggests that multicollinearity problem is non-existent as the correlation coefficients for the whole variable is less than 0.80. Multicollinearities are a problem when any of the correlation coefficient is above 0.80.

3.4 DATA ANALYSIS (Test of Hypotheses)

Table 12: Regression analysis for ROE, CDVND, DPORT AND LVRGE of the Listed Construction Companies

Dependent Variable: ROE
Method: Dynamic Ordinary Least Squares

Date: 23/09/21 Time: 20:31

Sample: 1 63 (2012 2020)

Included observations: 63

	Coefficient	Std. Error	t-Statistic	Prob.
C	3423804.	458582.2	6.485469	0.0004
CDVND	13411.24	157607.9	0.153376	0.0079
DPORT	-33759.03	7431.460	-3.111209	0.3476
LVRGE	69334.23	6883.445	2.532232	0.7333

R-squared	0.673354	Mean dependent var	43263545
Adjusted R-squared	0.593932	S.D. dependent var	13419366
S.E. of regression	8325343.	Akaike info criterion	26.64633
Sum squared resid	3.546433	Schwarz criterion	26.83857
Log likelihood	-145.8521	Hannan-Quinn criter.	26.64786
F-statistic	12.34484	Durbin-Watson stat	1.437904
Prob(F-statistic)	0.001592		

Source: Eviews 12 result

Table 12 showed that the coefficient of Cash Dividend Payment confirms the apriori expectation of this study which is the independent variable should be greater than 0. Cash Dividend Payment has a positive co-efficient of 13411.24 which is significant at 5% level which denoted that a unit increase in the Return on Equity will increase the Earning Per Share by 13411.24 Also, Cash Dividend Payment is significant in explaining the variation change in Return on Equity as the p-value is less than 0.05 (0.0079 < 0.05) at 5% level of significance, we then reject the null hypothesis1 (H_0) and conclude that Cash Dividend Payment has a significant relationship on Return on Equity (ROE) of the listed construction companies in Nigeria.

The coefficient of Dividend Payout Ratio did not confirm the apriori expectation of this study which is that the independent variable should be greater than 0. Dividend Payout Ratio has a negative co-efficient of -33759.03, significant at 5% level which denoted that a unit increase in the Dividend Payout Ratio will reduce the Return on Equity by 33759.03. Also, Dividend Payout Ratio is not significant in explaining the Return on Equity (ROE) as the p-value is greater than 0.05 (0.3476 > 0.05) at 5% level of significance, we then accept the null hypothesis 2 (H_0) and conclude that Cash Dividend Payment has insignificant relationship with Return on Equity (ROE) of the listed construction companies in Nigeria.

The co-efficient of determination as revealed by R-squared (R^2) indicates that 67% of the variation observed in the dependent variable – ROE is justified by the influence of the explanatory variable CDVND and DPORT and the other 33% is attributed to other factors not included in model. The overall probability for the model is 0.001592, which is less than 0.05. This shows that the model is a good fit.
The F-statistics which test the goodness of fit has value of 12.34484 and the Durbin-Watson Statistics is 1.4., which confirms that there is absence of serial correlation. A Durbin-Watson value closer to 2 shows the absence of serial correlation.

4.0 DISCUSSION

Our findings on the nexus between dividend payment and firms' performance of listed construction companies in Nigeria, shows that cash dividend payment (CDVND) is positive and significant in determining the variation change in Return on Equity (ROE). Our finding supports the findings of Abiola (2014) and Adediran & Alade (2013) but disagrees with the submission of Turakpe & Filwe (2017) and Raei, Moradi & Eskander (2012) as they have found a negative impact of Cash Dividend Payment on Return on Equity.

Finally, looking at the Dividend Payout Ratio coefficient and probability value, we can deduce that it has a negative value, and it is not significant in determining the variation change in Return on Equity. Our finding supports the finding of Ho (2002) who submitted a negative relationship between Dividend Payout Ratio and Return on Equity but disagree with the claims of Arnott $ Asness (2002) and Ahou & Ruland (2004).

The constructions companies in Nigeria are seen to have used the cash dividend payment to increase the return on equity for the years under review, however, the dividend payment has not increased the return on equity

5.0 CONCLUSION

This study has so far explained the nexus between dividend payment firms' performance of the listed Construction Companies in Nigeria. The construction companies in Nigeria are seen to have used the cash dividend payment to increase the return on equity for the years under review, however, the dividend payment has not increased the return on equity, and this could be as a result of the remaining dividend not being paid as cash but are paid as scrip which will not really encourage prospective investors.

5.1. RECOMMENDATIONS

Based on our findings, the following recommendations are presented:

i. Construction companies in Nigeria should increase their commitments in paying dividends as cash and this should be paid as at and when due. This is because the cash dividend payment of

the listed construction companies in Nigeria influences their financial performance positively.

ii. Lastly, the Management of Nigerian listed construction companies should avoid paying the dividend in other form as these scares away prospective investors thinking that such company is not financially buoyant. This is because the finding of this study revealed a negative and insignificant relationship of dividend payment on the financial performance of the listed construction companies in Nigeria.

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IMPACT OF E-SERVICE QUALITY ON CUSTOMER LOYALTY IN THE NIGERIAN BANKING INDUSTRY: BAUCHI STATE IN FOCUS

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Abstract

This research delved into the impact of electronic service quality on customer loyalty within the Nigerian banking sector. The primary aim was to assess the relationship between e-service quality and customer loyalty in Nigerian banking. In line with this research objective, four null hypotheses were formulated to guide the study. The study's theoretical foundation drew from Rogers' theory of innovation diffusion and the Technology Acceptance Model (TAM). The research adopted a cross-sectional survey design, and the sample consisted of customers from eight internationally accredited banks in Bauchi State, Nigeria. A sample size of 384 customers was determined using the Krejcie and Morgan (1970) formula, employing a convenience sampling method for participant selection. Data collection was conducted through a questionnaire employing a five-point Likert scale. Data analysis encompassed descriptive and inferential statistics using Statistical Package for Social Science (SPSS) version 23.0, with multiple regression coefficients utilized

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to test the formulated hypotheses. All null hypotheses were found to be unsupported. Consequently, the study revealed a significant association between interactivity and customer loyalty in the Nigerian banking sector, customer support and customer loyalty, customer technology adoption and customer loyalty, and the impact of website design on the relationship between e-service quality and customer loyalty. The study's conclusion was that e-service quality plays a significant role in enhancing customer loyalty in the Nigerian banking industry. In terms of recommendations, it was suggested that the banking sector should improve website interactivity, streamline online banking for customers, and increase customer awareness about the advantages of e-banking, among other measures.

Keyword: *Electronic, Service Quality, Customers Loyalty, Banking Industry, Nigeria.*

1.0 Introduction

Every organization's primary objective is to fulfill the needs of its stakeholders, and among these, customers hold a pivotal role due to their indispensable contribution to a company's success. A profound comprehension of consumer behaviour is crucial for crafting effective strategies that not only yield profits but also foster a positive rapport with customers. Notably, a customer's behavioral intention serves as a robust indicator of their actual actions (Uwabor & Ugwuonah, 2020).

As elucidated by Ignou, the dynamic landscape of customer behaviour underwent a significant transformation in 2020, catalyzed by the advent of advanced technologies. This transformation led to a substantial surge in the expectations and demands of consumers across all industries, including the banking sector. Modern customers, be they newcomers to e-commerce or seasoned online shoppers, now demand top-tier services, seamless access to their bank accounts, and frictionless payment experiences. Advanced technologies such as the Internet of Things, cloud computing, biometrics, widespread artificial intelligence, and machine

learning have fundamentally reshaped how customers interact with service providers (Ignou, 2020).

In the realm of banking, the importance of capitalization has been underscored through reforms that prioritize the consolidation of banking entities. These reforms emphasize the notion of creating a robust capital base upon which financial institutions can build and secure their banking operations. This framework, initially set at 25 billion naira (N25b) in 2005, is aimed at transforming the country's banking sector to achieve global competitiveness and ensure the safety of depositors' funds (Okafor, 2013).

1.1 Problem Statement

The changing dynamics of the financial sector and its corporate surroundings have necessitated organizations to shift their emphasis from products to customers for maintaining competitiveness. This transformation is particularly pertinent in the banking sector, where the proliferation of banking channels, including ATMs, PoS terminals, telephone banking, and internet banking, coupled with global competition, necessitate a deeper exploration of customer loyalty and the maintenance of enduring customer relationships (Uwabor & Ugwuonah, 2020).

In response to this, customers are increasingly seeking efficient, speedy, and convenient services from their banks. They desire a personalized banking experience that aligns with their individual needs and supports their business objectives, prompting the development of various electronic service channels and digital banking platforms. While most banks have adopted digital banking platforms such as mobile apps and software, customers are now looking for more interactive platforms that provide 24/7 access to banking services (David, 2018).

Despite the availability of various electronic banking channels, the adoption of more interactive platforms like Interactive Teller Machines (ITMs), known for their efficiency and improved customer service, remain limited. Customers sometimes experience frustration due to

delayed responses from banks, often attributable to network issues or ineffective use of electronic banking platforms, undermining their loyalty to the bank (Farrell, 2019). Customers expect banking services that align with their genuine needs and goals, and banks must support them in achieving these objectives to maintain their loyalty. In many cases, banks prioritize their own interests at the expense of customer goals, leading to customer disillusionment and the loss of their business (Daly, 2020).
Furthermore, there has been a notable increase in reports of hardware malfunctions in electronic banking, often due to maintenance lapses, leaving customers bearing the brunt of such issues. The rise in identity theft and card cloning has led to widespread security concerns associated with digital banking, deterring customers who are skeptical or have fallen victim to fraud. This has resulted in many Nigerians avoiding debit cards and mobile banking apps to prevent phone and debit card theft at gunpoint, where owners are forced to reveal their PINs, followed by immediate unauthorized withdrawals (David, 2018).

The rapid advancement of technology and the growing reliance on the internet have elevated websites to essential tools for establishing an online presence and effectively communicating with target audiences. However, despite the abundance of website design principles and guidelines, many websites fail to achieve their intended objectives and deliver an optimal user experience (Daly, 2020).

1.2 Objective of the Study

This research centres on assessing the impact of e-service quality on customer loyalty in the Nigerian banking industry. As a result, the study's objectives are outlined as follows:

1. To investigate the degree of the connection between interactivity and customer confidence in the Nigerian banking industry.
2. To assess the association between customer support and customer confidence in the Nigerian banking industry.
3. To gauge the effect of customer technology adoption on customer confidence in the Nigerian banking industry.
4. To appraise the impact of website design on customer confidence in the Nigerian banking industry.

1.3 Research Questions

In this segment of the research, the following inquiries were formulated:

1. To what degree does interactivity affect customer trust in the Nigerian banking sector?
2. Does customer support exert an influence on customer trust within the Nigerian banking industry?
3. What are the effects of customer technology adoption on customer trust in the Nigerian banking industry?
4. Does the website design yield a positive and substantial impact on customer trust in the Nigerian banking sector?

1.4 Statement of Hypotheses

$H0_1$: There is an absence of a significant connection between interactivity and customer trust in the Nigerian banking sector.

$H0_2$: There is an absence of a significant association between customer support and customer trust in the Nigerian banking industry.

$H0_3$: There is an absence of a significant link between customer technology adoption and customer trust in the Nigerian banking sector.

$H0_4$: There is an absence of a significant correlation between website design and customer trust in the Nigerian banking industry.

2.0 Review of Relevant Literature

The notion of e-service quality as a strategy for gaining a competitive advantage and securing a dominant position in the market has garnered significant attention from both professionals in the field and academic scholars. Within the banking industry, there is a clear acknowledgment that the importance lies not only in attracting customers but also in nurturing enduring customer relationships to establish a competitive edge in the continuously evolving business environment. This section of the thesis involves a comprehensive examination and analysis of existing scholarly literature concerning e-service quality and its impact on customer loyalty. The literature review in this study will place specific emphasis on the conceptual, empirical, and theoretical foundations, as well as the conceptual framework related to e-service quality and its

influence on customer loyalty within the realm of customer relationship marketing.

2.1 Theoretical Framework

This study is founded upon two distinct theories: Rogers' Innovation Diffusion Theory and the Technology Acceptance Model (TAM).

Rogers' Innovation Diffusion Theory is widely acknowledged as one of the leading theories for investigating the adoption of information technologies (IT) and understanding how innovations in IT spread among communities and individuals. According to this theory, innovation denotes an idea, process, or technology that is perceived as new or unfamiliar to individuals within a particular area or social context (Rogers & Singhal, 2003).

The Technology Acceptance Model (TAM), on the other hand, is a theory primarily employed within the field of information systems. It concentrates on modeling the behaviour of computer users and guiding them on how to embrace and integrate new technologies. Its primary objective is to forecast the technology adoption choices made by users. TAM simplifies this process by positing that there are only two components influencing users' acceptance of a computer system (Ibrahim et al., 2017).

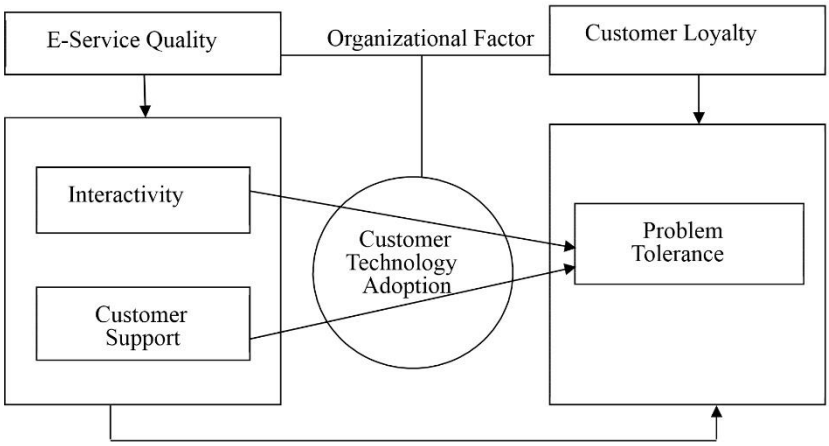

Figure 1: Conceptual Framework of e-service quality and customer loyalty of deposit money bank in Nigeria.
Source: Osagie and Geraldine, (2020).

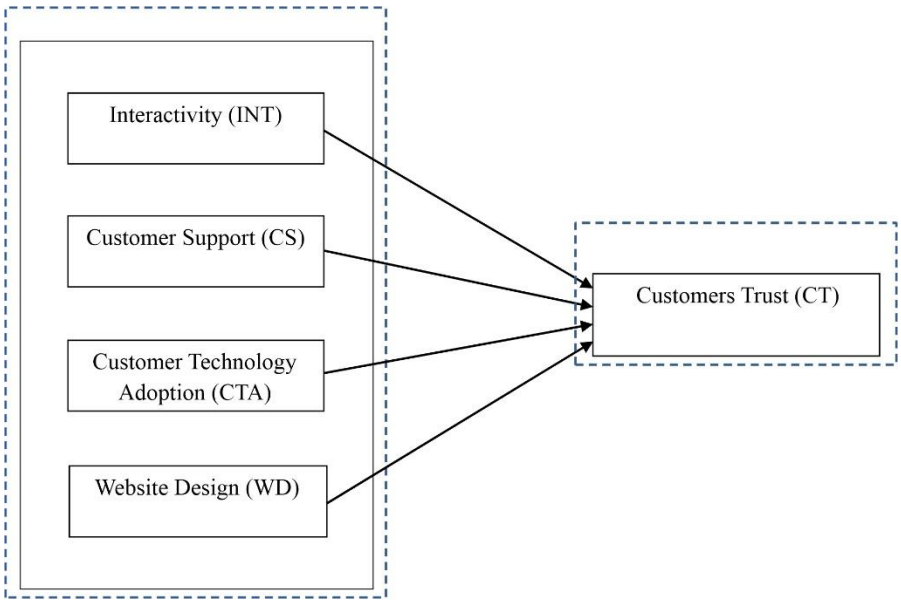

Figure 2: Adapted Conceptual Framework illustrating the influence of e-service quality on customer loyalty within the Nigerian banking sector,

with a specific focus on Bauchi State, derived from the work of Osagie and Geraldine (2020).

2.2 E-service Quality

The notion of e-service quality is centered on the capacity to provide users with streamlined and proficient services through electronic platforms. Likewise, Masika (2014) shares this viewpoint, defining e-service quality as embracing the ease of efficient and effective online shopping, purchasing, and timely product delivery through digital channels, as emphasized in the literature and service assessment. From a distinct angle, Asgari et al. (2014) characterizes electronic service quality as the capability to fulfill customer requirements with efficiency and effectiveness. Rita et al. (2019) interprets e-service quality as a comprehensive gauge of service excellence and supremacy.

2.2.1 Measurement of E-Service Quality

In this research study, four aspects of e-service quality were taken into account, specifically: interactivity, customer assistance, customer technology adoption, and website design.

a. Interactivity

The term "interactive" is often used interchangeably with emerging media such as the World Wide Web. In discussions of online advertising on the Internet, advertising professionals and researchers use the term "interactive advertising." However, despite the widespread use of these terms, scholars have noted that the concept of interactivity is frequently either unspecified or insufficiently defined. According to Cyr et al. (2009), website interactivity can be defined as the capacity for users to manipulate and access website content in various ways. A similar perspective is presented by Wu (2011), who characterizes website interactivity as a psychological state that visitors experience when interacting with a website. Gao et al. (2009) examine interactivity in the context of mobile advertising as a communication process

involving active control by mobile users, two-way communication, synchronicity, and playfulness.

b. Customer Support

Customers constitute the cornerstone of any thriving enterprise, and for a business to remain competitive, it should prioritize its focus on customers rather than solely concentrating on its products. With the exception of those who willingly donate blood, individuals are predominantly engaged in either offering services or selling products to sustain their livelihood. This applies to a wide range of occupations, incorporating individuals from various roles and occupations, such as politicians, bankers, office workers, couriers, bus conductors, ticket agents, market vendors, and anyone involved in trade or service provision, as highlighted by Uwabor et al. in 2021.

c. Customer Technology Adoption

Advancements in technology have eliminated monotonous and time-consuming activities, minimized the potential for human errors, and expanded the reach of banking services. Additionally, technology offers cost-effective access to Customer data that would entail significantly higher costs to acquire through direct interpersonal interactions. Telephone banking services enable the execution of non-cash transactions that previously necessitated in-person visits to a bank branch, as stated by Zairi in 2003.

d. Website Design

The design of a website is a pivotal element in establishing an appealing and effective online identity. It is instrumental in drawing in and keeping visitors, efficiently communicating information, and accomplishing specific objectives, including boosting conversions or enhancing brand recognition, as outlined by Rita et al. in 2019.

2.3 Customer Loyalty

Customer loyalty can be defined as the sustained and ongoing patronage of customers over a specific period. In contrast, service loyalty is marked by the degree to which a customer exhibits repeated purchasing behaviours with a service provider, maintains a positive attitude toward the provider, and tends to select this provider exclusively when in need of the service, as described by Leninkumar in 2016.

2.3.1 Measurement of Customer Loyalty

a. Customer Trust

Establishing customer confidence is a critical component for the success of any enterprise. It upholds a pivotal function in nurturing enduring connections, fostering customer allegiance, and, in the end, enhancing a company's general prosperity and expansion. Trust is not a commodity readily acquired but rather a fragile equilibrium necessitating ongoing commitment and transparency, as emphasized by Rita et al. in 2019.

2.4 Research Gap

After conducting an extensive analysis of Osagie and Geraldine's (2020) model concerning e-service quality and customer loyalty within deposit money banks, the researchers have devised a new model, illustrated as Figure (1). This model elucidates the correlation between electronic service quality, encompassing aspects like interactivity, customer support and customer loyalty. It particularly emphasizes problem tolerance and the moderating influence of customer technology adoption.

The revised model, built upon Osagie and Geraldine's (2020) framework, incorporates several adjustments. It repositions customer technology adoption from a moderating variable to an independent one, while simultaneously eliminating problem tolerance and introducing customer trust as a measurable component. This model has been crafted to investigate the interplay between various e-service quality variables and their impacts on customer loyalty in the Nigerian banking sector. The model identifies customer trust (CT) as the dependent variable, influenced by independent variables including interactivity (INT), customer support (CS), customer technology adoption (CTA), and website design (WD).

Additionally, Rita et al. (2019) explored the effects of e-service quality and customer satisfaction on online shopping behaviour. In their investigation, they considered independent variables like website design, security/privacy, and fulfillment, while the dependent variable was customer behaviour.

3.0 Methodology

The study employed a cross-sectional survey research design, which entails the examination of a sample from the target population at a single point in time. The research focused on customers engaged in e-banking with selected deposit money banks in Nigeria that hold international authorization, a result of their active involvement in e-service banking. Although the research encompassed the entire banking industry, the investigation specifically concentrated on customers of eight banks with international authorization operating in Bauchi State, Nigeria, as identified by the Central Bank of Nigeria (CBN) in 2021. The study was conducted over the period from 2021 to 2023, and the total population of bank customers in Bauchi State, Nigeria, which exceeded 4,000,000, according to data from the CBN.

Bauchi State was chosen as the ideal location for studying the impact of e-service quality on customer loyalty in the Nigerian banking industry due to its representative geography, diverse customer base, varied banking landscape, socioeconomic factors, and the potential for generalizing research findings. To determine the sample size, the researcher applied Krejcie and Morgan's (1970) formula, considering the desired confidence level, with higher confidence levels necessitating larger sample sizes for statistically significant results. The margin of error also played a pivotal role, with smaller margins requiring larger sample sizes to achieve the desired precision in estimates, as discussed by Osagie and Geraldine in 2020.

The study relied on primary data, with the questionnaire serving as the primary research instrument. The instrument underwent rigorous assessments for reliability and validity, with the Cronbach alpha regression coefficient averaging 0.880, affirming the questionnaire's

internal consistency. Additionally, the research instrument was reviewed and validated by four experts before commencing the main survey. The study's hypotheses were tested using multiple regression coefficients at a significant level of 0.05. The decision rule involved rejecting the null hypothesis when the p-value was less than 0.05, while accepting and supporting the null hypothesis when the p-value exceeded 5%.

4.0 Result/Findings

Demographic information from the participants was gathered, and an analysis of frequencies and percentages were conducted, with the results subsequently presented to provide insights into the profile of the survey participants including a total of 384 individuals, from which 356 fully completed questionnaires were received. Concerning gender, 63.5% (226 participants) were males, and 36.5% (130 participants) were females. Regarding marital status, 55.3% (197 participants) were married, while 44.7% (159 participants) were single. For age, 37.1% (132 respondents) fell in the 18-30 years bracket, 37.9% (135 respondents) were aged 31-40 years, 14.3% (51 respondents) were between 41-50 years, and 10.7% (38 respondents) were above 50 years. When considering the level of education, 53.1% (189 respondents) held a first-degree level of education, 5.6% (20 respondents) possessed a master's degree, 1.4% (5 respondents) held a Ph.D., and 39.9% (142 respondents) had other levels of education. Lastly, the list of banks with international authorization in Nigeria revealed the following distribution: 12.9% (46 respondents) for Access Bank, 11.8% (42 respondents) for Fidelity Bank, 12.6% (45 respondents) for First Bank, 12.1% (43 respondents) for Guaranty Trust Bank, 13.5% (48 respondents) for Union Bank, 11.8% (42 respondents) for United Bank for Africa, and another 11.8% (42 respondents) for Zenith Bank.

Table 1: Mean and Standard Deviation of Responses on Interactivity items

	Mean	Std. Deviation	Variance
The interactive elements on my bank's e-service platform facilitate the completion of my tasks.	4.03	.742	.551
If my transaction isn't processed, my bank's e-service platform provides guidance on the necessary steps.	4.27	.758	.575
The online service includes the option to engage in real-time conversation with a support agent when issues arise.	4.21	.865	.749
My bank's website offers the presence of online customer service representatives.	4.17	.882	.777
Within my bank's e-service platform, I have the opportunity to engage with it for personalized information.	4.13	1.028	1.056
Interactivity (INT)	4.162		

Source: Field Survey, 2023.

The extent of interactivity was evaluated using a set of five questionnaire items that were generated using a five-point Likert scale, as shown above. The objective was to calculate the mean response for the overall interactivity measure (INT), the means of the five items were calculated. The collective mean response for these items (4.16) indicates that the bank's electronic platform is considered to offer a reasonably good level of interactivity. Users found that the interactive features on my bank's e-service platform aided them in completing their tasks, with a mean score of 4.03.

Table 2: Mean and Standard Deviation of Responses on Customer Support Items

Items	Mean	Std. Deviation	Variance
The operators of my online banking platform will provide me with precise information regarding the service's availability.	3.99	1.060	1.124
The bank's e-service website empowers its customers to conduct online transactions tailored to their requirements.	4.04	.968	.936
The online service supplies a contact number for connecting with the bank.	4.06	.999	.999
My bank's service website is tailored to the unique demands of our clientele.	3.92	1.028	1.058
The quality of my bank's e-service ensures I receive real-time solutions.	3.99	1.048	1.099
Customer Support (CS)	4.00		

Source: Field Survey, 2023.

To assess customer support, we utilized a five-item questionnaire constructed using a five-point Likert scale, the provided labels correspond to these items. The average response for the customer support construct (CS) was calculated by determining the meaning of these five items. The combined mean response for these items yielded the overall average for the customer support construct, which is 4.00, indicates that our banking service website satisfactorily addresses the distinct requirements of our customers.

Table 3: Mean and Standard Deviation of Responses on Customer Technology Adoption

Items	Mean	Std. Deviation	Variance
Technology in my bank enables customers to conveniently access the online banking platform and conduct transactions.	4.00	1.008	1.017
Customers proficient in information and communication technology (ICT) advocate for the incorporation of tech-based features in the bank's e-service channels.	3.99	.983	.966
The online service offers the presence of customer service representatives who are available for assistance on the web.	4.04	.938	.880
At my bank, customers can independently explore the latest high-tech products and services offered by the bank without requiring the assistance of an IT expert.	3.95	1.029	1.059
Clients at my bank tend to find it less challenging to grasp the effective adoption of new technologies and their utilization in their e-service activities.	3.92	1.110	1.232
Customer Technology Adoption (CTA)	3.98		

Source: Field Survey, 2023.

We evaluated the incorporation of customer technology by employing a set of five questionnaire items structured using a five-point Likert scale, and these item labels are outlined above. We calculated the average of these five items to establish the overall mean response for the customer technology adoption construct (CTA). The collective average response for these items, which stands at 3.98, reveals a generally favorable perception among customers regarding the integration of technology on their bank's electronic platform. Consequently, clients tend to find it relatively easy to understand the effective utilization of new technologies in their e-service endeavors, as reflected by a mean score of 3.92.

Table 4: Mean and Standard Deviation of Responses on Website Design Items

Items	Mean	Std. Deviation	Variance
The website provides the information I require for my tasks.	3.96	1.002	1.004
The website presents content that is visually appealing and easy to comprehend.	4.10	.989	.978
The website sufficiently fulfills my information requirements.	4.01	1.037	1.076
The text on the website is clear and legible.	4.08	.939	.882
The website's information is efficient in serving its purpose.	3.93	1.091	1.190
Website Design (WD)	4.016		

Source: Field Survey, 2023.

To assess the website's design, we used a five-item questionnaire constructed with a five-point Likert scale. The labels for these items are provided above. By computing the average of these five items, we established the overall mean response for the website design construct (WD). The cumulative mean response for these items, amounting to 4.02, indicates that the website successfully communicates information, demonstrating a relatively high degree of effectiveness.

Table 5: Mean and Standard Deviation of Responses on Customer Trust Items

Items	Mean	Std. Deviation	Variance
Anticipate receiving valuable guidance from this online service.	4.02	1.040	1.081
This online service demonstrates a sincere concern for the well-being of its customers.	3.99	.984	.969
In case of issues, you can count on receiving equitable treatment from this online service.	4.13	.930	.866
I am satisfied with the high standards adhered to by this online service.	4.12	.929	.863
This online service operates with great attention to detail and integrity.	4.16	.920	.847
Customer Trust (CT)	4.084		

Source: Field Survey, 2023.

We gauged the customer trust aspect by employing a five-item questionnaire that was crafted using a five-point Likert scale, the item labels as described earlier were used. After calculating the average of these five items, we established the overall mean response for the customer trust construct (CT). The combined average response for these items, which stands at 4.08, indicates that customers place a relatively high level of trust in the bank's electronic platform. Furthermore, it is evident that this online service genuinely prioritizes the welfare of its customers, as reflected in a mean score of 3.99.

4.1 Regression Analysis

This section presents the model summary and ANOVA results, which assess the influence of e-service quality on customer loyalty within the Nigerian banking sector, considering the e-service quality offered by Nigerian banks. The table displayed below provides a concise summary of the outcomes.

Table 6: Model Summary and ANOVA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.473[a]	.224	.215	.42764	25.339	.000[b]

a. Dependent variable: Customer Trust

Table 6 displays the outcomes of a multiple linear regression analysis aimed at predicting the impact of e-service quality on customer loyalty in the Nigerian banking industry, with a specific focus on the e-service quality offered by this sector. The model yielded an R-value of 0.473 and an R-square value of 0.224, alongside an F-statistic of 25.339, which is associated with an extremely significant p-value of 0.000 ($P<0.0005$).

These results indicate that the model as a whole can account for approximately 47.3% of the variance in customer trust. Additionally, the table presents an assessment of the model's goodness of fit, revealing a moderately high R-value and a p-value of 0.000.

From the model summary, the R-value of 0.473 signifies that 47.3% of the variations in the dependent variable (customer trust) can be attributed to the explanatory variables (interactivity, customer support, customer technology adoption, and website design) included in the model. The remaining 52.7% of variations are influenced by other variables not considered in the model but still affecting the dependent variable.
In essence, the model appears to be well-suited for the research, as the R-value is close to 1, indicating a strong fit for the model. This suggests that the explanatory variables account for 47.3% of the variation in the model, while other factors outside the model contribute to the remaining 52.7%.

Table 7: Coefficients

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	1.419	.269		5.269	.000
	Interactivity	.176	.060	.160	2.951	.003
	Customer Support	.098	.051	.104	1.933	.004
	Customer Technology Adoption	.173	.053	.172	3.231	.001
	Website Design	.212	.050	.222	4.253	.000

a. Dependent Variable: Customer Trust

The table presented as Table 7 above provides a detailed breakdown of the coefficients in the regression model analysis. This table provides an explanation of how e-service quality affects customer loyalty in the Nigerian banking sector.

The findings in this table reveal that interactivity, customer support, customer technology adoption, and website design all wield a substantial influence on customer trust, as evidenced by their individual p-values of

0.000. Specifically, it can be inferred that website design holds a particularly strong and distinct impact on customer trust, evidenced by its substantial beta value of 0.222. Similarly, customer technology adoption also exhibits an impact on customer trust, with a beta value of 0.172. Interactivity contributes to customer trust as well, with a beta value of 0.160, although it is slightly less pronounced than website design and customer technology adoption. On the other hand, customer support has a comparatively lower impact on customer trust, reflected in its beta value of 0.104.

4.2 Test of Hypotheses

$H0_1$: A significant relationship between interactivity and customer trust does not exist within the Nigerian banking industry.

The results of the multiple regression analysis, detailed in Table 7 under the "Coefficient" section reveal that the beta value for interactivity is 0.160. This value represents the distinctive contribution of interactivity to the dependent variable, which is customer trust. In this case, the significance level for interactivity is 0.003, a value lower than the critical threshold of 0.05, affirming that interactivity has a positive and statistically meaningful impact on customer trust.

In summary, a significant and substantial correlation exists between interactivity and customer trust. Consequently, the alternative hypothesis is supported, and the null hypothesis, which suggested the absence of a significant relationship between interactivity and customer trust, is rejected. This outcome contradicts the null hypothesis introduced in the study's initial chapter.

$H0_2$: A significant relationship between customer support and customer trust is not evident within the Nigerian banking industry.

The findings pertaining to the Beta value of customer support indicate a value of 0.104, indicating its role in influencing the dependent variable, which is customer trust. The associated probability value, representing statistical significance, stands at 0.004, falling below the conventional

threshold of 0.05. As a result, the alternative hypothesis, which asserts a meaningful influence of customer support on customer trust, receives support. Consequently, the null hypothesis, which suggested the absence of a significant effect between customer support and customer trust, is refuted. In essence, it can be concluded that customer support contributes to customer trust to a relatively modest degree.

$H0_3$: A significant relationship between customer technology adoption and customer trust is not observed within the Nigerian banking industry.
Similarly, the results regarding the Beta value representing customer technology adoption reveal a value of 0.172, indicating a substantial contribution to the dependent variable, which is customer trust. The associated probability value, set at 0.001, falls below the threshold of 0.05. Consequently, the alternative hypothesis, which proposes a significant impact of customer technology adoption on customer trust, is supported. This implies that the null hypothesis, which suggested the absence of a significant effect between customer technology adoption and customer trust, is refuted. In conclusion, it can be affirmed that customer technology adoption indeed wields a meaningful influence on customer trust within the Nigerian banking industry. In light of these findings, it is evident that hypothesis number three, initially positing that customer technology adoption does not affect customer trust, is hereby dismissed.

$H0_4$: A significant relationship between website design and customer trust is not evident within the Nigerian banking industry.

Based on the data presented in Table 7, specifically in the "Coefficient" section, the Beta value associated with website design is recorded at 0.222. This value underscores the positive impact of website design on the dependent variable, which is customer trust. In this context, website design demonstrates a level of significance at 0.000, surpassing the threshold of 0.05, and it contributes positively to customer trust. This confirms a substantial association between website design and customer trust. As a result, the alternative hypothesis, which suggested a noteworthy increase in customer trust due to website design, is upheld,

while the null hypothesis, proposing no significant relationship between website design and customer trust, is rejected.

4.3 Discussion of Results

The results were analyzed in accordance with the research questions' sequence. Both Table 6 and 7 demonstrate positive and statistically significant R values at the 5% significance level for all the models. This suggests that the models are statistically robust in their ability to predict customer loyalty in the Nigerian banking industry through interactivity. In simpler terms, the variables used in this study are suitable for forecasting the dependent variable. Furthermore, the indicators of interactivity elucidated 47.3% of the variance in the models. When assessing the role of each e-service quality indicator in the model, interactivity stood out as a significant contributor to customer trust, with coefficient values of 0.160 and probability values of 0.003 and 0.0000, respectively.

These findings are consistent with the research of Yu et al. (2012) and Osagie & Geraldine (2020). In contrast, they diverge from the earlier studies of Das (2009), who identified a negative impact in his research.
The results reveal that customer support exerts a positive and statistically significant influence on customer trust, as evidenced by coefficient values of 0.104 and a probability value of 0.004, falling below the 5% significance level. This outcome runs counter to the expectations outlined in the hypotheses introduced in Chapter One. It aligns with the findings of Uwabor et al. (2021), Bowen & Chen (2001), Asgari et al. (2014), and Osagie & Geraldine (2020), all of whom identified a positive and substantial impact of customer support on customer trust. However, this observation contradicts the study conducted by Fornell (1992) and Anton (1996).

The findings also indicate that the adoption of customer technology has a positive and substantial impact on customer trust within the Nigerian banking sector, as measured during the study period. The probability values displayed on the table, denoted under the robust standard error, are all below the 5% significance level, marked as 0.001. This outcome is

consistent with previous studies such as Samer (2018), Shih & Fang (2003), and Osagie & Geraldine (2020), all of which identified a positive and significant effect on customer trust. However, it contradicts the hypotheses outlined in Chapter One and deviates from earlier research, including the work of Laforet & Li (2005).

The regression analysis unveiled a notable regression equation, featuring an F value of 25.339, a p-value of 0.000, and an R value of 0.473. This suggests that website design has a robust impact on customer trust in the Nigerian banking sector. This discovery is in line with the outcomes of Rita et al. (2019) and Asgari et al. (2014), both of which found a positive and significant influence of website design on customer trust.

5.0 Summary, Conclusion and Recommendations

5.1 Summary

The aim of this study was to investigate the impact of e-service quality on customer loyalty in the Nigerian banking industry. The study is structured into five chapters. The first chapter explores the contextual factors that led to the development of four research objectives and their associated hypotheses. The research covers the period from May to June 2023. In the second chapter, an extensive review of the literature concerning the relationship between e-service quality and customer loyalty in the Nigerian banking sector was undertaken. The research results, which include both descriptive and inferential statistics, are presented, analyzed, and discussed in the fourth chapter.

5.2 Conclusion

In this context, interactivity demonstrates a probability value below the significance threshold, and the results reveal a positive and substantial impact of interactivity on customer trust. This, in turn, leads to the conclusion that there is a significant link between interactivity and customer trust, thereby rejecting the null hypothesis introduced in Chapter One.

Conversely, it can be inferred that customer support has a relatively smaller effect on customer trust. These findings do not align with the initial expectations set forth in the hypothesis presented in Chapter One. Similarly, it is established that customer technology adoption significantly influences customer trust in Nigeria. This suggests the dismissal of hypothesis number three, which initially proposed that customer technology adoption had no influence on customer trust.

In a similar vein, in this instance, website design yields a probability value below the significance threshold and also contributes positively to customer trust. This leads to the conclusion that there is a notable correlation between website design and customer trust, contrary to the initial hypothesis outlined in Chapter One.

5.3 Recommendations

Derived from the research findings, the following suggestions can be put forward:

1. The banking sector should enhance the user-friendliness and interactivity of their online banking platforms, aiming to stimulate increased usage.
2. It is crucial to streamline online banking procedures for customers and enhance their understanding of the advantages of electronic banking.
3. Banks should focus on establishing and maintaining the highest level of customer trust through electronic service delivery, as this plays a pivotal role in cultivating customer loyalty.
4. Recognizing the considerable impact of website design on customer trust, banks should prioritize the security of their websites to attract more users and foster greater customer loyalty.

5.4 Areas for further research

The following areas for further research are suggested:

i. The current study exclusively focused on banks with international authorization in Nigeria during the period from 2021 to 2023. To gain a more comprehensive understanding, future research should encompass a broader spectrum of banks and extend the

timeframe, providing a more inclusive view of the Nigerian banking landscape.

ii. Researchers within this field can explore similar studies using alternative customer loyalty measures, such as commitment, as their dependent variables. This approach can offer valuable insights to the Nigerian banking industry, aiding in the development of e-service quality strategies tailored to optimize a bank's value. Many prior investigations have primarily relied on data from foreign contexts, making this a significant area of inquiry.

iii. To expand the breadth of knowledge, it is advisable for future research to extend the study's scope beyond a single geographical region, considering various zones in Nigeria. The original survey was conducted solely in Bauchi state, and broader geographic coverage would enhance the generalizability of findings.

5.5 Contribution to knowledge

The study's results hold significance across theoretical, practical, policy, and managerial domains. The notable and meaningful contributions of the study's constructs offer a foundation for informed decision-making by bank executives and managers. This, in turn, empowers them to formulate effective strategies and policies aimed at enhancing customer loyalty. Moreover, professionals and diverse stakeholders can utilize these results to communicate the benefits of e-service quality, ultimately promoting enhanced customer loyalty and increased engagement.

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