

Linking Compensation Packages to Operational Performance: Evidence from the Consumer Goods Sector (2002-2024)

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Abstract

Understanding the link between compensation structures and operational performance is crucial in Nigeria's evolving consumer goods sector. This study investigates the impact of directors' remuneration, salaries, wages and allowances, and employee benefits on operational performance measured by Return on Assets (ROA). Using an ex post facto research design, the study analyzed secondary data from audited financial statements of Nestlé Nigeria Plc, CBN Statistical Bulletin and World Bank Open Data spanning 2002 to 2024. Analytical techniques included multiple regression via E-Views, descriptive statistics, autoregressive (AR) terms, the Breusch-Godfrey Serial Correlation LM Test, heteroskedasticity, normality tests, Q-statistic probabilities adjusted for one ARMA term, and strategic tools such as SWOT and PESTEL analysis. The regression results indicate that none of the compensation components, directors' remuneration ($p=0.1066$), salaries/wages/allowances ($p=0.3812$), or employee benefits ($p=0.9938$) had statistically significant effects on ROA. Among macroeconomic variables, only exchange rate had a significant negative influence ($p=0.0023$), while inflation ($p=0.6637$) and GDP growth ($p=0.6005$) were not significant. Despite this, the overall model was statistically significant (F-statistic = 14.71, $p < 0.001$), explaining approximately 88% of the variation in ROA ($R^2 = 0.88$). The study's limitation to a single firm, Nestlé Nigeria Plc may affect the generalizability of findings across the sector. However, the findings emphasize the need for performance-based compensation strategies, proactive foreign exchange risk management, and the use of macroeconomic indicators as planning tools rather than direct performance levers.

Key Words: Compensation packages; Operational performance; Directors' remuneration; Employee salaries; Wages and allowances; Employee benefits and return on assets

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1. Introduction

Globally, effective pay practices have been repeatedly demonstrated to have a major positive impact on operational performance in a variety of businesses [1]. Without adequate, competent, and professional human resources, it is extremely difficult for both business and non-profit companies to thrive; for this reason, human resources are regarded as extremely valuable organizational capital. Having the right human resources will guarantee organizational productivity, quality, and improved performance; thus, businesses must hire the right human resources if they wish to attain these goals [2].

In the African setting, there has been a growing interest in the connection between company performance and remuneration. According to research, customized pay plans that take into account regional economic and cultural aspects can improve organizational effectiveness and satisfaction among workers. For example, research has shown that performance-based incentives increase worker productivity in a number of African nations [3-5]. One of the most significant factors driving this performance is how businesses compensate their employees. In addition to having an effect on employee satisfaction and motivation, the layout, style, and appeal of pay packages may also be a major factor in determining an organization's performance [6].

Recent empirical studies in Nigeria have demonstrated that various components of compensation such as salaries, bonuses, and training expenditures exert significant influence on key performance indicators, including return on capital employed [6,7]. On the other hand, Okpo, et al. [3] present mixed findings, reporting a positive and statistically significant relationship between certain CEO remuneration proxies and return on liquid assets. However, while cash compensation was also found to correlate positively with return on liquid assets, this specific relationship was not statistically significant. It is in this context that this paper is orchestrated to investigate the influence of directors' remuneration, salaries, wages and allowances, and employee benefits as proxies for compensation packages on operational performance, measured by Return On Assets (ROA), over a 23-year period from 2002 to 2024.

This extended timeframe allows for a comprehensive evaluation of long-term trends, organizational changes, and macroeconomic fluctuations. It captures key economic events such as the 2016 recession and the post-COVID-19 recovery period, offering a contextual backdrop for assessing corporate performance under varying economic conditions. Nigeria was selected for this study due to its dynamic and evolving corporate governance landscape, the significance of its emerging economy within sub-Saharan Africa, strategic significance in the domestic and international consumer goods markets.

Nestlé Nigeria, a subsidiary of Nestlé S.A., one of the biggest food and beverage corporations in the world with activities in more than 180 nations, is an essential component of the business's operations throughout Africa. As a market leader in the Fast-Moving Consumer Goods (FMCG) industry in Nigeria, Nestlé Nigeria Plc serves as an ideal case study due to its longevity, multinational structure, strong public financial disclosure, renowned sound corporate governance, reliable financial reporting, and dedication to worker welfare and consistent listing on the Nigerian Exchange Group (NGX), which facilitates longitudinal analysis and data availability.

1.1. Statement of the problem

In the face of persistent global economic difficulties, companies need to give comprehensive compensation plans top priority in order to draw in and keep talent, maintain their competitiveness, and improve operational efficiency. Underperformance, a high personnel turnover rate, and the loss of institutional knowledge can result from a failure to provide competitive and comprehensive compensation.

Furthermore, a large number of workers are still ignorant of the entire extent of their benefits packages, which causes them to undervalue their positions and show less dedication to the company. In order to address these issues, this study looks at how pay packages affect the operational effectiveness of the consumer products industry in Nigeria from 2002 to 2024.

1.2. Objectives of the study

The specific objectives were to:

- Evaluate the impact of directors' remuneration on the return on assets of consumer goods firms in Nigeria.
- Assess the effect of salaries, wages and allowances on the return on assets of consumer goods firms.
- Examine the influence of employee benefits on the return on assets of consumer goods firms.

1.3. Research questions

- What is the impact of directors' remuneration on the return on assets of consumer goods firms in Nigeria?
- What is the effect of salaries, wages and allowances on the return on assets of consumer goods firms?
- What is the influence of employee benefits on the return on assets of consumer goods firms?

1.4. Research hypotheses

- Directors' remuneration has no significant impact on the return on assets of consumer goods firms in Nigeria.
- Salaries, wages and allowances have no significant effect on the return on assets of consumer goods firms.
- Employee benefits have no significant influence on the return on assets of consumer goods firms.

2. Review of Related Literature

2.1. Conceptual literature

As shown in figure 1 regarding the independent variables, dependent variable and control variable.

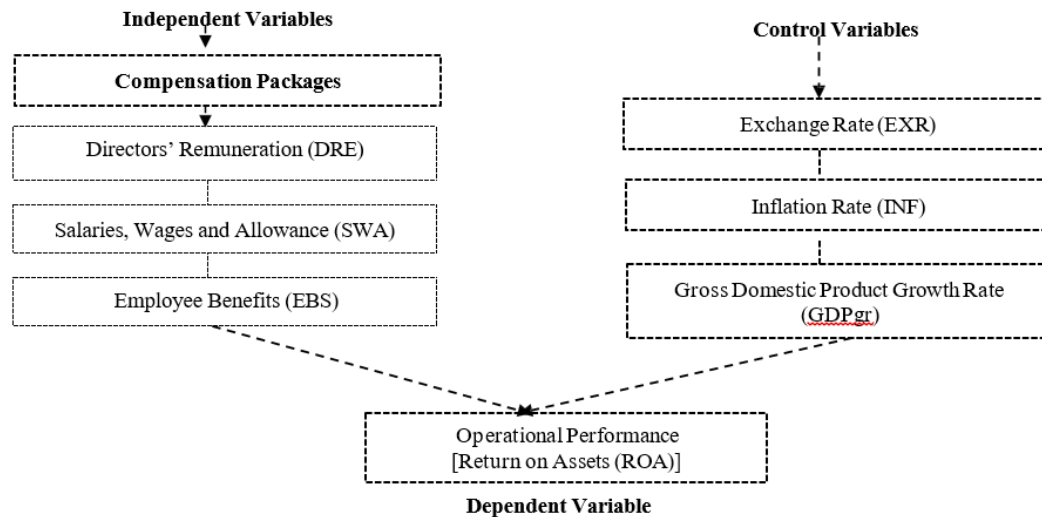


Figure 1: Author's conceptual model. 2025.

2.2. Compensation packages

Compensation packages vary widely based on economic conditions and labor regulations. Key components include basic salaries, allowances (e.g., housing and transportation), medical benefits, and sometimes profit-sharing schemes [8-10]. Challenges such as wage disparities and limited access to structured employee benefits are common. However, multinational corporations operating in Africa often implement global practices while adapting to local cultural and economic contexts [11]. As to Luthans [12], 95% of labor disputes globally include wages, salaries, or payment systems, as determined by employers, employees, and the government.

Organizations may also provide non-monetary benefits such as training and development opportunities. However, factors like inflation, exchange rate volatility, and regulatory frameworks significantly influence compensation structures, particularly in the private sector [13]. According to Permana, et al. [14], compensation needs to be viewed as a crucial component that influences employee performance. Organizations must take the topic seriously since poor performance results in work dissatisfaction, and compensation is a factor that can contribute to higher performance [15]. One of the most important functions of HRM (human resource management) is compensation [16], which controls and manipulates the advantages that individuals or workers receive in exchange for doing organizational tasks or duties that are part of their obligations [17]. Above all, compensation may be the most driving factor for workers. Through observable salary increases and benefits, it acknowledges them and strengthens positive feedback [18].

2.3. Directors' remuneration

The compensation of executive and non-executive directors in accordance with the rules outlined in the corporation's articles of association and authorized by the shareholders is known as director's remuneration. Salary, fees, or the use of a company's property are examples of compensation, which may or may not be correlated with business earnings [3]. First of all, companies that provide attractive packages or salaries will always draw in skilled and seasoned executives [19]. Therefore, it is anticipated that the executive's calibre will affect the organization's success. Second, the executives would constantly try to defend the enormous remuneration packages that were provided to them. Last but not least, the caliber of employees drawn to companies that provide adequate compensation will always increase these companies' goodwill. According to Husni, et al. [20], providing executive directors with appropriate remuneration becomes a powerful tool that business owners require to address agency conflicts, which are typically brought on by knowledge asymmetry that can arise inside organisations. Therefore, there is a propensity to reduce risk and enhance managerial performance when corporations give larger compensation packages.

2.4. Employee salaries, wages and allowances

Wages, salaries, and allowances are often determined by an agreement between the worker or employee and the management [21], wherein the worker or employee agrees to market his services to the management and the management agrees to pay the worker or employee money in exchange. The quality of the services the employee provides and the amount of effort they put into those services determine the monetary worth of such services. Typically, a specific clause in the contract will address the wages, salary, or allowance that the employer is required to pay. However, the question of whether there is a contract of work may come up if the agreement for employment does not address compensation [22]. Nonetheless, in common law, a contract can be inferred from the parties' actions. According to *Higgins v Hopkins*, a contract should be implied when one party works on another's request in a way that makes it obvious that he expects payment as a matter of right.

2.5. Employee benefits

An employee benefits program aims to improve the happiness and well-being of its members. Aside from salaries, employee perks are usually provided as a component of the total pay package, either all at once or in installments over time [23]. These are the extra perks and compensations workers receive on top of their salary; they may not always be monetary in nature but might include health, family, accident, and group insurance; retirement benefits; sick leave; vacation time; or monies for their education. Employee benefits are basically any form of compensation offered by companies to employees alongside wages and salaries, which can be paid in whole or in installments, as explained by Lee, et al. [24]. These benefits might be given to employees in whole or in installments, either separately or in addition to their salary.

2.6. Operational performance

How successfully and efficiently a business's daily activities match its objectives are known as operational performance [25]. It evaluates how well a company makes use of its resources to produce income from routine business operations [26]. This assessment provides a thorough picture of a business's financial situation and provides a foundation for ratio analysis that compares similar businesses within or between industries [27]. It places a strong

emphasis on productivity, quality, and customer satisfaction as indicators of effectiveness and efficiency in reaching organizational goals. To increase productivity, it frequently entails resolving infrastructure issues, optimizing resources, and implementing creative procedures [28].

For consumer products companies negotiating the competitive terrain, improving operational performance become essential. This aim is centered on evaluating important Key Performance Indicators (KPIs) [29,30]. KPIs assess a company's performance against a set of goals, targets, or competitors in the same industry. Financial KPIs include things like revenues less certain costs, net profit (also known as the bottom line or net income), and the current ratio (liquidity and cash availability). By evaluating operational performance holistically, stakeholders may understand how well a business converts its resources into income, controls risks, and meets financial goals. It is crucial for directing strategic choices and guaranteeing the company's long-term survival.

2.7. Returns on assets

Operating performance and Return On Assets (ROA) are strongly related. One important indicator that shows how well a business can make money off of its assets is ROA. Generally speaking, a greater ROA means that a business is making better use of its resources, which enhances operating performance. A lower ROA, on the other hand, indicates that the business could not be optimizing the value of its assets, which could have an effect on how efficiently it operates. According to Yonas, et al. [31], ROA represents a company's complete ability to generate a profit utilizing all of its accessible assets. It comprises the financial measures that companies use to determine how profitable they are. It raises questions about how well management uses its resources to produce profits. Determined by dividing an organization's yearly profit by its total assets, ROA is shown as a percentage. Studies have shown that ROA and operational efficiency are positively correlated. For example, research by Aroul, et al. [32] discovered that increased operational performance had a positive relationship with ROA in Real Estate Investment Trusts (REITs), indicating improved operational efficiency.

2.8. Inflation rate

Inflation remains a critical macroeconomic factor influencing operational performance in Nigeria's consumer goods sector. As a persistent external threat, inflation exacerbates cost volatility, erodes purchasing power, and undermines long-term financial planning [33]. Within the context of compensation structures, inflation diminishes the real value of salaries, wages, and employee benefits making it harder for firms to retain talent without increasing costs, thereby affecting profitability. Onakoya, et al. [34] found that inflation has a statistically significant negative impact on business growth in Nigeria, largely due to inflation-induced cost uncertainties that constrain access to affordable financing. As financial institutions raise interest rates to mitigate inflation risk, firms struggle to secure credit for operations and expansion.

2.9. Exchange rate

The exchange rate reflects the value of a nation's currency relative to another and significantly influences business performance, particularly in import-dependent sectors like Nigeria's consumer goods industry. As defined by Orji, et al. [35], it represents the number of local currency units required to purchase one unit of a foreign currency, and vice versa. Movements in the exchange rate directly affect the cost of imported raw materials, equipment, and even

expatriate compensation packages critical elements for firms like Nestlé Nigeria Plc. A depreciating naira increases operating costs, forcing firms to either absorb the rising expenses or pass them on to consumers, potentially reducing demand and profitability.

2.10. Gross domestic product growth

Gross Domestic Product (GDP) growth reflects the overall economic health of a nation and often serves as a contextual backdrop for corporate performance and strategic planning. Although Nigeria has recorded modest annual GDP growth rates – projected at 4.5% and 5.5% in the 2014 and 2015 budgets respectively – these figures have not translated into robust structural development [36]. Compared to mature economies like the United States, which reported a 2.2% growth in 2014, Nigeria's growth appears quantitatively high but qualitatively weak due to structural imbalances and policy inconsistency. In relation to the consumer goods sector, GDP growth typically signals increased consumer purchasing power and market expansion, both of which are critical for driving firm-level profitability. However, findings by Umoh [37] suggest that GDP growth in Nigeria tends to have a more significant impact on broader socio-economic indicators like the Human Development Index (HDI) rather than directly improving firm-level operational performance.

2.11. Theoretical literature

This study is anchored on equity theory, developed by John Stacey Adams in 1963, which provides a foundational framework for understanding the relationship between compensation and employee performance [38]. Equity theory posits that employees assess the fairness of their compensation by comparing their inputs (such as time, effort, experience, and skills) to the outcomes (pay, benefits, recognition) they receive relative to others in similar roles. When employees perceive equity in these exchanges, they are more likely to be motivated, productive, and satisfied. Conversely, perceived inequities, whether being under-rewarded or over-rewarded, can lead to dissatisfaction, reduced performance, or attempts to restore balance, such as disengagement or turnover.

Equity theory is relevant to this study since it emphasizes how employee performance is influenced by perceived fairness. It describes how variations in pay plans, including wages, benefits, and director compensation, may affect employee motivation and, consequently, operational success. In the consumer products industry, where employee commitment, morale, and productivity are directly linked to performance results, this theoretical perspective is especially relevant. Therefore, by clarifying how employees' views of compensation fairness might influence behavior and overall organizational success, equity theory provides a useful conceptual framework for this investigation.

2.12. Empirical literature

The link between pay packages and operational performance has been the subject of several empirical research in recent years, with occasionally conflicting findings. For instance, Shinwari, et al. [6] use descriptive analysis, reliability analysis, correlation analysis, ANOVA, and regression analysis with SPSS to investigate the relationship between pay and job satisfaction among employees in Kabul, Afghanistan. The results of the study demonstrate that compensation packages have a major impact on employees' job satisfaction and that employee' opinions about their pay—including salary, perks, and incentives—play a substantial role in deciding how satisfied they are with their jobs. Employee job satisfaction in private banks is positively correlated with greater compensation, indicating that

competitive and well-designed pay plans might be beneficial tools for improving organizational performance, cutting attrition, and enhancing staff morale in the banking sector. These findings demonstrate how important transparent and equitable pay procedures are to achieving strategic HR objectives.

Nwaba, et al. [7] examined the relationship between CEO compensation and the financial performance of Nigerian listed industrial product manufacturing enterprises. The study used descriptive statistics and linear regression analysis to investigate the relationship between the selected enterprises' compensation, bonuses, and profit after tax utilizing an ex-post facto research technique. The study found a significant positive correlation between salary and profit after taxes, suggesting that higher pay could help these businesses become more profitable. However, it was found that bonuses had no appreciable impact on post-tax earnings. These results imply that although pay has a significant impact on profitability, bonus plans by themselves could not have a direct impact on the financial performance of Nigerian industrial products manufacturing firms.

Okpo, et al. [3] investigated the connection between the financial performance of Nigerian deposit money banks and the compensation packages of executive directors. Using secondary data taken from the 2015–2019 financial statements of five randomly chosen deposit money institutions, the study used an ex post facto research approach. With the use of SPSS version 20, data analysis was carried out utilising regression and correlation approaches. The results showed a positive and statistically significant correlation between a number of CEO remuneration proxies and return on liquid assets. Cash-based compensation alone may not be a powerful predictor of liquidity-related performance outcomes in the banking industry, as the results also showed a positive correlation between cash compensation and return on liquid assets, although this relationship was not statistically significant.

Adanlawo, et al. [14] investigated compensation as a driver of performance and job satisfaction. One hundred (100) workers of the University of Zululand in South Africa were randomly selected using a cross-sectional survey design in the form of a structured questionnaire. The gathered data was analyzed using descriptive and correlational analysis. This implies that elements other than pay, including professional dedication or intrinsic drive, can be more important in maintaining employee success.

Another study was performed by Agubata, et al. [4], studying the influence of employee benefits on the financial performance of the consumer goods industry in Nigeria, utilizing a panel dataset from 10 consumer goods businesses registered on the Nigerian Stock Exchange and running from 2012 to 2019. The study adopted the panel random effect modeling technique. The results demonstrate that compensation, medical benefits, and gratuities all have statistically significant effects on profits per share, which is used as the study's indicator of organizational growth.

While pensions and salaries were found to have positive effects, gratuities and medical care had negative effects. Pension is statistically insignificant, though. The findings' implication is that increasing pay has a tendency to foster organizational expansion. Wage improvement and maybe pensions will thus need careful consideration in order to promote organizational development through employee benefits. On earnings smoothing in Nigerian industrial sectors, Okpe, et al. [5] concentrated on profit-based compensation, bonus-based compensation, and share-based compensation covering 2012 to 2021. Panel regressions were used. The findings showed that profit-based compensation, bonus-based compensation, and share-based compensation all had a positive and significant impact on earnings smoothing.

This suggests that managers smooth their profits more when they receive more share-based, bonus-based, or profit-based compensation. Performance-based pay has significant effects on the earnings smoothing of Nigerian quoted consumer and industrial goods companies. Okafor, et al. [39] evaluated the impact of human resource expenditures on the financial performance of listed manufacturing companies in Nigeria.

The study designs that were employed were descriptive and causal comparative. The multivariate econometric analysis's findings demonstrated that salaries, wages, and allowances had a substantial and positive influence on return on equity. This implies that successful staff pay investments raise shareholder value by boosting employee productivity, motivation, and retention. Businesses that prioritize fair and competitive compensation schemes are more likely to experience better financial outcomes and sustain long-term profitability, the study finds.

Regression analysis was used by Ndum, et al. [40] to examine the impact of human resource costs on the financial performance of Nigerian brewing businesses listed between 2007 and 2019. The findings show that the return on assets of Nigerian brewing enterprises is positively but marginally impacted by labor expenses. The results might point to inefficiencies in aligning human capital expenditures with performance outcomes or a lag in the return on such investments.

Adamu, et al. (2020) [41] investigated the moderating effect of a number of board attributes on the relationship between the directors' compensation and the financial performance of Nigerian listed insurance companies between 2012 and 2017. To analyze the data, pooled OLS was employed. Financial performance was revealed to be favorably and strongly connected with the salary of directors. This suggests that director compensation is more likely to be in line with clear objectives when boards include a greater number of independent members, which promotes accountability, strategic supervision, and better financial results.

Bankole [42] examines the impact of human resource costs on the financial performance of consumer products firms in Nigeria over a ten-year period, from 2009 to 2018. Static panel estimation techniques were used to analyse the data. The outcome demonstrated that wages and predicting salaries had a slight yet beneficial effect on ROA. This implies that although employee compensation expenditures might not have a significant or immediate effect on profitability right away, they gradually improve asset utilization and operational efficiency. The empirical research's overall results show variations in the particular elements of compensation packages that most significantly affect operational performance. The variance in results among research may be explained by contextual factors, such as the industry structure, regulatory frameworks, economic environment, and cultural perspectives on compensation.

2.13. Gap in literature

Most prior research has predominantly focused on cross-sectional analyses or broad sectoral evaluations, often overlooking firm-specific investigations that could provide deeper, context-rich insights. Notably, there is a dearth of empirical research on Nestlé Nigeria Plc, a significant participant in the consumer goods sector that uses longitudinal data over a lengthy time frame, notably from 2002 to 2024. Our comprehension of how pay structures change over time and affect operational performance is constrained by this gap.

Furthermore, the use of strategic analytical tools like trend analysis, SWOT (Strengths, Weaknesses, Opportunities, and Threats), and PESTEL (Political, Economic, Social, Technological, Environmental, and Legal) frameworks has been largely overlooked in previous research. Employee performance and pay systems are shaped by wider macroeconomic and strategic factors, which these approaches are crucial for capturing. In order to overcome this shortcoming, the current study uses sophisticated econometric methods via the e-views statistical program in addition to these strategic models.

This adds a great deal to the body of knowledge and establishes the groundwork for more strategic, data-driven, and well-informed compensation planning in Nigeria's consumer products industry.

3. Methodology

3.1. Research design

Utilizing an ex-post facto research methodology, the study examined the connection between pay packages and operational success in the consumer goods sector between 2002 and 2024 using secondary data from the companies' financial statements and annual reports.

Because it examines long-standing relationships and makes use of unchangeable historical data, this method is appropriate for examining how pay packages affect operational performance. The adoption of this research methodology is justified by the data's resilience to manipulation.

3.2. Source of data and sample method

Secondary data from Nestlé Nigeria Plc's annual financial statements, covering the years 2002–2024, is used in this study. These financial reports were provided by the Nigerian Exchange Group (NGX), which ensures the accuracy, consistency, and reliability of the data. By focusing on a single, well-known consumer goods firm, the research enables a comprehensive and context-specific analysis of worker remuneration and operational success.

However, the conclusions may not be as generalizable to other consumer goods or industrial businesses due to this firm-specific technique. Dependence on publicly available financial data also increases the risk of negative outcomes like selective disclosure or prejudice in reporting. Nonetheless, the data remains a strong basis for drawing perceptive inferences on the dynamics of performance and compensation in Nigeria's industrial sector.

3.3. Sample techniques

Using a judgmental (purposive) sample approach, Nestlé Nigeria Plc was chosen due to its consistent growth, operational effectiveness, and significance in Nigeria's consumer goods industry. The firm was an excellent choice for a thorough examination of the connection between compensation plans and operational performance because of its regular financial reporting and strategic significance.

3.4. Empirical model

Table 1: *Model specification.*

Model Type	Expression	Eqn. No.
General functional form	$ROA_{it} = f(DRE_{it}, SWA_{it}, EBS_{it}, INF_{it}, EXR_{it}, GDP_{grit})$	-1
general Mathematical/statistical form	$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon_{it}$	-2
Individual functional relationships	$y_1 = f(x_1)$	-3
	$y_2 = f(x_2)$	
	$y_3 = f(x_3)$	
	$y_4 = f(x_4)$	
	$y_5 = f(x_5)$	
Combined functional relationships	$y_6 = f(x_6)$	-4
	$y = f(x_1, x_2, x_3, x_4, x_5, x_6)$	
Combined linear regression model	$ROA_{it} = \beta_0 + \beta_1 DRE_{it} + \beta_2 SWA_{it} + \beta_3 EBS_{it} + \beta_4 INF_{it} + \beta_5 EXR_{it} + \beta_6 GDP_{grit} + \varepsilon_{it}$	-5
Log-linear regression model	$ROA_{it} = \beta_0 + \beta_1 \text{LogDRE} + \beta_2 \text{LogSWA} + \beta_3 \text{LogEBS} + \beta_4 \text{LogINF} + \beta_5 \text{LogEXR} + \beta_6 \text{LogGDPgrt} + \varepsilon_{it}$	-6
	$ROA_{it} = \beta_0 + \beta_1 DRE_{it} + \beta_2 INF_{it} + \beta_3 EXR_{it} + \beta_4 GDP_{grit} + \varepsilon_{it}$	
Objective 1 model	$ROA_{it} = \beta_0 + \beta_1 SWA_{it} + \beta_2 INF_{it} + \beta_3 EXR_{it} + \beta_4 GDP_{grit} + \varepsilon_{it}$	-7
Objective 2 model	$ROA_{it} = \beta_0 + \beta_1 EBS_{it} + \beta_2 INF_{it} + \beta_3 EXR_{it} + \beta_4 GDP_{grit} + \varepsilon_{it}$	-8
Objective 3 model	$ROA_{it} = \beta_0 + \beta_1 EBS_{it} + \beta_2 INF_{it} + \beta_3 EXR_{it} + \beta_4 GDP_{grit} + \varepsilon_{it}$	-9

Source: *Author's adoption, 2025.*

Where,

Y= Dependent variable that characterizes metrics of operational performance like: Return on assets
X= Independent variable variables that stand in for the compensation packages factors;

x1 = Directors Remuneration

x2 = Salaries, Wages and Allowances

x3 = Employee Benefits

ROA = Return on Assets

DRE = Directors Remuneration

SWA = Salaries, Wages and Allowances

EBS = Employee Benefits

Control Variables

x4 = Inflation Rate

x5 = Exchange Rate

x6 = Gross Domestic Product growth rate

INF = Inflation Rate

EXR= Exchange Rate

GDPgr = Gross Domestic Product Growth Rate

I = firm via Nestle Nigeria Plc

t = Number of years since 2002

β_0 = Constant or the intercept, representing the base value of ROA when all independent variables are zero.

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ =Regression coefficients of the independent variables (DREit, SWAit, EBSit INFit, EXRit, GDPgrit), measuring the individual effects of these variables on ROA.

E =The error term, capturing all other variables and random factors that may affect ROA but are not included in the model.

Log = Natural logarithms of independent and control variables.

3.5. Methods of data analysis

Both descriptive and inferential statistical techniques were used in this study to analyze the data. The main features of the data were summed up using descriptive statistics, such as measures of central tendency and variability. Inferential statistics like multiple regression and correlation analysis were used to look at the relationships between operational performance and the components of compensation packages. The trends and variations during the twenty-three-year period (2002–2024) were also evaluated using trend analysis. Analytical techniques included multiple regression via E-Views, descriptive statistics, autoregressive (AR) terms, the Breusch-Godfrey Serial Correlation LM Test, heteroskedasticity and normality tests, and Q-statistic probabilities adjusted for one ARMA term. The SWOT and PESTEL frameworks were used to assess the wider issues impacting the consumer goods industry in order to enhance the study even further. E-Views software was used for data analysis in order to evaluate the study's assumptions and produce reliable results.

4. Result and Discussion

Table 2: ROA, INF, GDPgr and natural logarithms (LN) of DRE, SAW, EBS and EXR.

Yrs	ROA	LDRE	LSWA	LEBS	INF	LEXR	GDPgr
2002	0.359472	10.01324	13.6619	14.27701	34.6	4.843399	3.4
2003	0.319405	10.41793	13.94375	14.36791	24.66	4.919981	2.9
2004	0.286234	10.68033	14.13788	14.69576	18.85	4.889221	3.3
2005	0.314239	10.73779	14.26128	14.67556	16.95	4.859812	3.6
2006	0.299358	10.97271	14.51124	15.1228	13.25	4.844187	-1.79
2007	0.256061	11.14115	14.82222	15.17109	11.4	4.760463	2.21
2008	0.285725	11.13864	14.84528	15.26032	12.09	4.877104	1.92
2009	0.207052	11.33556	15.29146	15.17569	16.52	4.997888	0.81
2010	0.208734	11.38653	15.40498	15.3029	15.68	5.00267	-1.62
2011	0.21625	11.52772	15.61877	13.54441	9.01	5.054333	2.65
2012	0.237596	11.64164	15.77297	13.89494	8.06	5.048316	6.31
2013	0.2057	11.69248	15.89515	14.41535	8.48	5.048188	6.67
2014	0.209647	11.69533	16.03432	14.41861	12.22	5.123964	4.23
2015	0.199109	11.64047	16.08373	14.68354	10.84	5.283204	5.31
2016	0.046731	12.17885	16.21041	14.55899	13.72	5.720312	8.01
2017	0.229719	12.54444	16.24228	14.6379	12.56	5.723585	8.04
2018	0.264935	12.65536	16.32513	14.80901	11.58	5.726848	6.76
2019	0.236242	12.70291	16.34419	15.27597	5.39	5.726848	6.59

2020	0.159279	12.78241	16.35877	15.31313	8.23	5.942799	6.06
2021	0.129053	12.88747	16.55292	15.21141	17.86	6.075346	6.44
2022	0.117977	13.2359	16.6903	15.2879	15	6.131226	9.25
2023	-0.13661	13.74028	16.86981	15.21283	11.4	6.802273	7.35
2024	-0.19168	14.18844	17.13018	15.28481	12.09	7.299101	15.33

Source: E-view output, 2025.

As shown in figure 2 regarding nestle Nigeria PLC trend analysis.

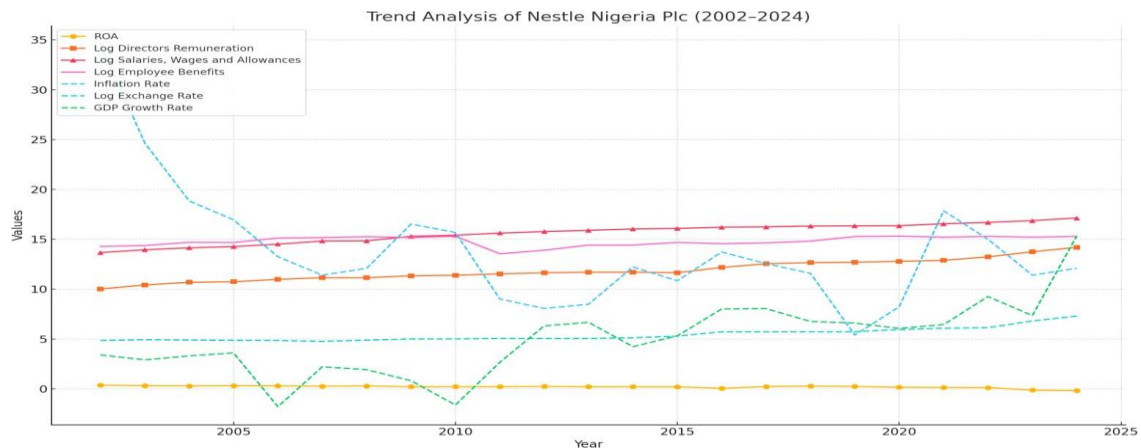


Figure 2: Nestle Nigeria PLC trend analysis (2002-2024).

Table 3: Implications for management based on trend analysis (2002–2024).

Period	Trend summary	Interpretation	Implications for management
2002-2008	ROA showed moderate fluctuations but generally declined; Compensation variables (LDRE, LSWA, and LEBS) gradually increased. Inflation rate decreased.	Increasing personnel costs not matched by ROA growth; operational inefficiencies or declining profitability margins despite favorable macroeconomic trends.	Management should reassess cost structures and productivity. Align compensation with performance. Improve operational efficiency to boost ROA.
		Rising employee costs with	
2009-2014	ROA declined sharply from 0.28 to 0.20; LEBS and LSWA kept increasing. Inflation and GDP growth were relatively stable.	stagnant or declining returns suggest inefficiencies in resource utilization or lack of performance-based remuneration.	Introduce performance-based incentives. Monitor return on compensation. Consider structural adjustments to align output with expenditure.
2015-2019	ROA declined further with major dip in 2016 (0.046); slight recovery by 2018; GDP growth improved,	Low ROA in 2016 reflects adverse macroeconomic factors. Rising compensation amid low returns may	Strengthen financial controls. Use macro indicators (GDP, inflation) for planning. Adopt conservative compensation

2020-2022	compensation kept increasing.	indicate poor cost control or external shocks.	structures during economic downturns.
	ROA continued to decline to 0.11; LDRE and LSWA still rising; inflation rate surged.	Operational returns were weak despite strong macro indicators. Cost pressures increased due to inflation and rising compensation.	Conduct inflation-adjusted budgeting. Use flexible wage systems. Improve productivity through training, automation, or restructuring.
2023-2024	GDP growth positive but volatile.	Negative returns with high compensation indicate unsustainable financial structure or performance misalignment. Exchange rate volatility worsened financial results.	Urgent need for performance-linked pay. Review executive compensation. Hedge against exchange rate risks. Reprioritize financial and operational strategies.
	ROA turned negative (-0.13 in 2023, -0.19 in 2024); LDRE reached highest levels; LEBS stagnant. Exchange rate and inflation remained high.		

Source: *Author's analysis, 2025.*

Table 4: *Strategic implications for management.*

Trend insight	Strategic focus area	Implication	Recommended action steps
ROA has generally declined over time, especially from 2016 onward, becoming negative in 2023 and 2024.	Financial	The declining ROA, despite rising revenues and spending, indicates that resources are not translating into profitability. Negative ROA suggests possible inefficiencies, affecting operational performance.	Conduct a comprehensive profitability audit.
	Sustainability & Performance	misallocations, or strategic missteps	Implement a performance-based budgeting system. Reassess core business strategies to ensure resources align with profit-driving activities.
Directors' remuneration (LDRE) increased significantly from 2002 to 2024, even during years of negative ROA.	Executive	A sustained rise in executive pays amid falling firm performance raises concerns about misalignment of incentives. This may create stakeholder discontent and diminish accountability.	Introduce a performance-linked compensation model where remuneration is tied to financial metrics like ROA, ROE, and revenue growth. Establish oversight by independent remuneration committees.
	Compensation Governance		Implement performance appraisal systems. Conduct manpower audits to align workforce size with productivity. Introduce
Salaries, wages, and allowances (LSWA) grew steadily, not accompanied by	Human Resource Cost Management	The growing wage bill, without a corresponding rise in productivity or returns, suggests inefficiencies in	

proportional increases in ROA.		labor deployment or inflated staffing costs.	flexible compensation systems tied to individual and team output.
Employee benefits (LEBS) plateaued between 2016–2024, not showing growth alongside wage increases.	Employee Motivation & Welfare	While salaries increased, stagnation in benefits may lead to employee dissatisfaction, reduced motivation, and potential turnover.	Reassess benefit packages (e.g., pensions, health care, insurance). Introduce non-financial rewards like career growth programs and training. Ensure parity between cash and non-cash benefits.
Macroeconomic indicators (inflation and exchange rate) showed significant volatility, especially post-2016.	External Risk Management	High inflation and exchange rate fluctuations increased operational costs, reduced purchasing power, and possibly eroded profit margins.	Integrate macroeconomic indicators into scenario planning. Use hedging strategies to mitigate exchange rate risks. Adjust pricing strategies based on inflation trends.
GDP growth improved after 2016, yet ROA declined sharply in the same period.	Strategic Market Positioning	The company did not leverage national economic recovery to drive internal growth. It may be lagging in competitiveness, innovation, or adaptability.	Reposition market strategies by exploring high-growth product lines. Expand to underserved regions. Benchmark against industry leaders to identify missed opportunities.
Sharp drop in ROA despite peak compensation in 2023–2024.	Corporate Governance & Leadership Effectiveness	This inverse relationship suggests potential leadership inefficiency or lack of accountability. Stakeholders may view this as a misalignment of priorities.	Consider management restructuring or leadership evaluation. Introduce transparent performance scorecards. Increase board oversight to monitor ROI on leadership decisions.

Source: *Author's adoption, 2025.*

Table 5: *Descriptive statistics of the variables.*

	ROA	LDRE	LSWA	LEBS	INF	LEXR	GDPGR
Mean	0.193923	11.86685	15.60908	14.8086	13.93217	5.421786	4.944783
Median	0.21625	11.64164	15.89515	14.80901	12.22	5.054333	5.31
Maximum	0.359472	14.18844	17.13018	15.31313	34.6	7.299101	15.33
Minimum	-0.19168	10.01324	13.6619	13.54441	5.39	4.760463	-1.79
Std. Dev.	0.133427	1.074392	0.998904	0.496461	6.163704	0.678536	3.721192
Skewness	-1.67434	0.39589	-0.48652	-0.8524	1.767607	1.266174	0.501806
Kurtosis	5.411354	2.458492	2.077811	3.001752	6.780808	3.916444	4.122563
Jarque-Bera	16.31882	0.881808	1.722367	2.785272	25.6759	6.950465	2.17291
Probability	0.000286	0.643454	0.422662	0.24842	0.000003	0.030955	0.33741
Sum	4.460232	272.9376	359.0089	340.5978	320.44	124.7011	113.73
Sum Sq. Dev.	0.391661	25.39499	21.95182	5.422407	835.8074	10.12904	304.64

Source: *E-view output, 2025.*

Table 6: *Analysis of the descriptive statistics.*

Statistic	Explanation	Insights per variable
Mean	The average value over the period. Indicates central tendency.	ROA has an average of 0.19 (or 19%), suggesting moderate profitability. Directors' remuneration (LDRE), salaries (LSWA), and employee benefits (LEBS) increased gradually over time. High inflation average (13.93%) implies macroeconomic instability. GDP growth rate averaged 4.94%, a modest rate for a developing economy.
Standard Deviation (Std. Dev.)	Measures dispersion from the mean. Higher values indicate more variability.	Inflation (6.16%) and GDPGR (3.72%) show high variability – volatile macroeconomic environment. ROA variability (0.13) indicates performance instability, possibly due to economic shocks. Employee benefits (LEBS) and LDRE are more stable with smaller standard deviations.
Skewness	Shows asymmetry in data distribution. - Positive skew: long tail on the right. - Negative skew: long tail on the left.	ROA and LEBS are negatively skewed: More data points lie above the mean; poor performance years drag the average down. INF and LEXR are positively skewed: High outlier values in inflation and exchange rates indicate spikes due to economic crises or currency devaluation.

Kurtosis	Indicates "tailedness" of the distribution.	ROA and INF have high kurtosis (>5): distributions have extreme values/outliers, reflecting periods of abnormally high inflation or poor financial performance.
	- Normal kurtosis = 3. - High (>3): more outliers. - Low (<3): fewer outliers.	LDRE and LSWA show low kurtosis, indicating more normal and stable trends in remuneration.
Jarque-Bera (JB)	Test for normality of the distribution.	ROA and INF have significant JB stats ($p < 0.01$): Their distributions are not normal, suggesting caution when using models assuming normality.
	Compares skewness and kurtosis to those of a normal distribution.	LDRE, LSWA, LEBS, GDPGR pass the normality test ($p > 0.05$), suitable for standard linear regression.
Probability (p-value)	Accompanies JB test. If $p < 0.05$, reject the null hypothesis of normality.	ROA and INF are significantly non-normal ($p=0.0003$ and 0.0000 , respectively).
		LEXR marginally violates normality ($p=0.0310$). Others are acceptably normal ($p > 0.05$), supporting parametric analysis.

Source: E-view output, 2025.

Table 7: Results of general model tested Using Autoregressive (AR) terms dependent variable: ROA.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LDRE	0.204557	0.118598	1.724801	0.1066
LSWA	-0.06985	0.077261	-0.90409	0.3812
LEBS	0.000282	0.035396	0.007969	0.9938
INF	0.002026	0.004562	0.444196	0.6637
LEXR	-0.39928	0.107338	-3.71979	0.0023
GDPGR	0.003167	0.005911	0.535863	0.6005
C	0.959742	0.75456	1.271922	0.2241
AR(1)	0.480462	0.221781	2.166375	0.048
R-squared	0.880333	Mean dependent var		0.186398
Adjusted R-squared	0.820499	S.D. dependent var		0.131477
S.E. of regression	0.055703	Akaike info criterion		-2.66226
Sum squared resid	0.04344	Schwarz criterion		-2.26552
Log likelihood	37.28486	Hannan-Quinn criter.		-2.5688
F-statistic	14.71299	Durbin-Watson stat		2.236946
Prob(F-statistic)	0.000018			

Source: E-view output, 2025.

Table 8: Analysis of key statistics based on the regression output (Nestle Nigeria Plc, 2002–2024).

Statistic / Variable	Coeff.	Std. Error	t-Statistic	Prob.	Implications	Decisions
LDRE (Log Directors' Remuneration)	0.2046	0.1186	1.7248	0.1066	Positive relationship with ROA, but statistically insignificant at 5%. Suggests director compensation may encourage performance but is not a strong driver.	Consider moderate increase in director incentives, tied more directly to ROI benchmarks. Reassess compensation structure and
LSWA (Log Salaries, Wages, and Allowances)	-0.0699	0.0773	-0.9041	0.3812	Weak negative effect and not significant. Suggests payroll costs have limited direct impact on ROA.	workforce efficiency for long-term productivity. Can be deprioritized in financial modeling.
LEBS (Log Employee Benefits)	0.0003	0.0354	0.008	0.9938	No measurable influence on ROA. Effectively neutral in the model.	However, retain for HR welfare balance.
INF (Inflation Rate)	0.002	0.0046	0.4442	0.6637	Very weak and statistically insignificant effect on ROA. Inflation has not distorted profitability.	Inflation monitoring should continue, but isolated inflation control is not critical to ROA
LEXR (Log Exchange Rate)	-0.3993	0.1073	-3.7198	0.0023	Highly significant negative effect. Exchange rate volatility directly reduces ROA.	Adopt forex hedging strategies; explore local sourcing and pricing adjustments to manage exposure.
GDPGR (Gross Domestic Product Growth Rate)	0.0032	0.0059	0.5359	0.6005	Weak and statistically insignificant. National growth does not directly boost Nestle's ROA in short run.	Align corporate strategies with expanding sectors of the economy for better leverage.
C (Constant Term)	0.9597	0.7546	1.2719	0.2241	Represents baseline ROA. Not significant, suggesting profitability is driven more by specific factors.	Use as a reference point; focus on controllable drivers of performance.

AR(1) (Autoregressive Term)	0.4805	0.2218	2.1664	0.048	Statistically significant.	Future modeling
					Inclusion of AR(1) corrects for autocorrelation and improves model reliability.	should retain AR structure to ensure robust estimation and eliminate bias.

Source: *Author's adoption, 2025.*

Table 9: *Model performance summary.*

Statistic	Value	Implications
R-squared	0.8803	Model explains 88.03% of the variation in ROA indicates strong fit.
Adjusted R-squared	0.8205	Adjusted for number of predictors; still strong, shows reliability.
F-statistic (Prob.)	14.71	The model is jointly significant at 1% level. Predictors explain ROA
	(0.000018)	variations effectively.
Durbin-Watson	2.237	Approaching ideal value (2.0), indicating no significant
		autocorrelation after AR(1) inclusion.
Akaike / Schwarz /	AIC = -2.662,	Suggest good model parsimony with a strong balance between fit
Hannan-Quinn	SC = -2.266,	
Criteria	HQ = -2.569	and simplicity.

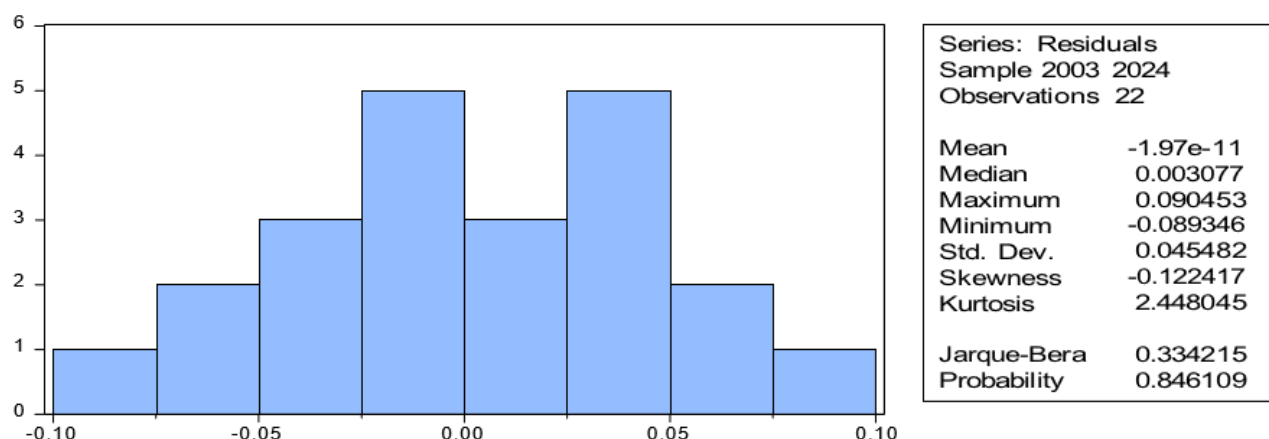


Figure 3: *Normality test.*

Source: *E-view output, 2025.*

The inclusion of the AR (1) term in the regression model resulted in the loss of one observation at the beginning of the dataset. Since there was no lagged value available for the year 2002, the residual analysis commenced from the year 2003 as indicate in figure 3 above.

Table 10: *Normality test analysis of residuals (Nestle Nigeria Plc, 2003–2024).*

Statistic	Value	Interpretation
Jarque-Bera (JB)	0.3342	A low JB value suggests the residuals are close to a normal distribution.
Probability (p-value)	0.8461	Since this p-value is greater than 0.05, we fail to reject the null hypothesis of normality. This means the residuals are normally distributed.
Skewness	-0.1224	Close to 0, indicating slight left-skew, but still within an acceptable range for normality.
Kurtosis	2.448	Close to the normal value of 3.0, indicating light tails, not much different from a normal distribution.
Std. Dev.	0.0455	Shows low spread/volatility in residuals, which supports model stability.

Source: *Author's adoption, 2025.*

Table 11: *Breusch-Godfrey serial correlation LM test.*

F-statistic	0.664695	Prob. F(2,12)	0.5324
Obs*R-squared	2.194142	Prob. Chi-Square(2)	0.3338

Source: *E-view output, 2025.*

Since both Prob. F (2, 12) = 0.5324 and Prob. Chi-Square (2) = 0.3338 are greater than 0.05, we fail to reject the null hypothesis in Table 11 above; this implies that there is no evidence of serial correlation in the residuals of the model. The model passes the Breusch-Godfrey test, confirming the reliability of the regression estimates with respect to autocorrelation.

Table 12: *Heteroskedasticity test: Breusch-Pagan-Godfrey.*

F-statistic	0.225643	Prob. F(6,15)	0.962
Obs*R-squared	1.821275	Prob. Chi-Square(6)	0.9354
Scaled explained SS	0.533996	Prob. Chi-Square(6)	0.9974

Source: *E-view output, 2025.*

Since all p-values (0.9620, 0.9354, and 0.9974) are much greater than 0.05, we fail to reject the null hypothesis. There is no evidence of heteroskedasticity in the residuals. This confirms that the variance of the error terms is constant (homoskedastic), satisfying one of the key assumptions of the classical linear regression model.

Table 13 shows that the most p-values > 0.05, suggesting no significant autocorrelation at those lags. However, Lag 8 shows a Q-stat of 14.104 with a p-value of 0.049, slightly below the 0.05 threshold, implying possible autocorrelation at lag 8. Lags 9–12 also show marginal significance (0.053 to 0.081), but still above the 5% level. Overall, the residuals do not show strong evidence of serial correlation. The model passes the diagnostic check except at Lag 8, where mild autocorrelation might be present. The indication of one spike does not invalidate the model but warrants caution or potentially further diagnostics (e.g., re-specifying lags or adding a moving average term).

Table 13: *Q-statistic probabilities adjusted for 1 ARMA term.*

Autocorrelation	Partial correlation	AC	PAC	Q-Stat	Prob*	
. * .	. * .	1	-0.13	-0.13	0.4228	
. .	. .	2	0.037	0.02	0.4583	0.498
. **.	. **.	3	0.295	0.307	2.8706	0.238
. * .	. * .	4	-0.155	-0.088	3.5766	0.311
. ** .	. ** .	5	-0.233	-0.329	5.2652	0.261
. .	. ** .	6	-0.052	-0.241	5.3543	0.374
. * .	. **.	7	0.102	0.256	5.7233	0.455
*** .	. ** .	8	-0.471	-0.317	14.104	0.049
. * .	. .	9	0.172	0.038	15.304	0.053
. * .	. ** .	10	-0.082	-0.259	15.597	0.076
. ** .	. .	11	-0.206	-0.008	17.641	0.061
. * .	. * .	12	0.086	-0.093	18.036	0.081

*Probabilities may not be valid for this equation specification.

Source: *E-view output, 2025.*

Table 14: *SWOT analysis of Nestlé Nigeria Plc (2002–2024).*

Category	Factors	Explanation
Strengths	High model fit	R-squared = 0.8803, Adjusted R ² = 0.8205 → The model explains 88.03% of the variation in ROA, which is very strong.
	Overall significance	F-statistic = 14.71, Prob(F) = 0.000018 → Model is statistically significant.
	Significant lag effect	AR (1) coefficient = 0.4805, p=0.0480 → Past performance significantly influences current ROA.
	low autocorrelation	Durbin-Watson = 2.24 → No autocorrelation problem in residuals.
Weaknesses	Potential multicollinearity risk	Overlapping economic variables like LDRE ($\beta = 0.2046$, p=0.1066) and LEXR ($\beta = -0.3993$, p=0.0023) may affect result interpretability due to interdependence.
	Insignificant predictors	Most predictors are statistically insignificant (p > 0.05): LDRE (p=0.1066), LSWA (p=0.3812), LEBS (p=0.9938), INF (p=0.6637), GDPGR (p=0.6005) → These add limited individual value.
	high SE in some coefficients	E.g., LDRE Std. Error = 0.1186; wide confidence range indicates lower precision.
	Policy reviews on exchange rate	LEXR is significant (p=0.0023) with a large negative impact on ROA (-0.3993) → Suggests opportunity for policy reform to stabilize exchange rates and protect profitability.

Threats	Explore better predictors	Since many current predictors are insignificant, the model can be improved by testing other firm-specific or macroeconomic variables (e.g., interest rates, taxation).
	Model optimization	Good baseline model performance provides a solid foundation for using regularization (e.g., Ridge or Lasso) to refine results.
	exchange rate volatility	Strong negative impact of LEXR on ROA is a threat to corporate profitability and stability.
	Overfitting risk	High R ² (0.88) with several insignificant variables may suggest overfitting, reducing out-of-sample predictive power.
	poor impact of salaries/wages/allowances (LSWA)	LSWA coefficient = -0.0699, p=0.3812 → Suggests inefficient labor cost management might reduce returns.

Source: *E-view output, 2025.*

Table 15: *PESTEL analysis.*

Factor	Impact	Explanation
Political	Moderate risk	Political instability, policy inconsistency, and corruption in Nigeria may affect economic growth and investor confidence. Regulatory policies influencing exchange rate and inflation may indirectly affect ROA (LEXR p=0.0023, significant). LEXR (Exchange Rate) has a significant negative impact on ROA (coefficient = -0.3993, p=0.0023) → This reflects the detrimental effect of currency depreciation.
Economic	High risk	Inflation (INF) is statistically insignificant (p=0.6637), suggesting minimal short-term impact, but still poses long-term risks. GDP Growth (GDPGR) is not significant (p=0.6005), indicating macroeconomic growth alone may not boost firm profitability unless well- distributed.
Social	Low to moderate	LSWA (Labor Salaries/Wages) has a negative but insignificant effect on ROA (coefficient = -0.0699, p=0.3812) → May suggest inefficiencies or poor wage- productivity alignment. Highlights need for human capital optimization and equitable income distribution.
Technological	Opportunity	Technological innovations (not captured directly in this model) are crucial for improving operational efficiency. This is an unmeasured variable but could be integrated into future models to improve explanatory power.
Environmental	Minimal	No direct environmental variables in the regression model, but environmental compliance costs and sustainability factors could influence future ROA.

Legal	Moderate	With ESG trends rising, ignoring environmental costs may pose reputational risks.
		Legal framework around taxation, FX controls, and trade regulations impacts ROA indirectly via LEXR and possibly DRE (Domestic Revenue Expenditure).
		LDRE has a positive but not statistically significant effect (coefficient = 0.2046, p=0.1066), implying need for better fiscal discipline and transparency in revenue spending.

Source: *Author's adoption, 2025.*

Table 16: *Implications to relevant stakeholders.*

Stakeholder(s)	Findings	Implications	Suggested Actions
Management (Nestlé Nigeria Plc)	Exchange rate (LEXR) has a strong negative impact on ROA ($\beta = -0.399$, $p=0.0023$).	Rising Foreign Exchange (FX) volatility erodes profitability through cost of imports and financial exposure.	Hedge against FX risk; increase local sourcing and backward integration.
	Labor salaries and wages (LSWA) have a negative but insignificant effect on ROA ($\beta = -0.070$, $p=0.381$).	Poor productivity-to-wage alignment may threaten job security or hinder salary growth.	Enhance employee productivity via training; tie wages to performance metrics.
Employees	Adjusted $R^2 = 0.82$ shows strong model fit, but only one variable (LEXR) is statistically significant.	Board needs to reassess non- performing strategies and macroeconomic exposures.	Conduct periodic reviews of strategic plans and diversify revenue sources.
	High R^2 (0.88) but limited statistically significant drivers.	Macro risks (e.g., FX shocks) outweigh operational risks.	Seek firms with FX risk management strategies; demand transparent FX exposure reporting.
Directors	GDPGR and INF show no significant impact on ROA ($p=0.6005$, 0.6637 respectively).	Macroeconomic growth is not yet trickling down to corporate profitability.	Improve monetary and fiscal coordination; promote inclusive growth.
	Negative coefficient on LSWA implies potential overpayment vs. output.	May face pressure to justify wage increases in weak productivity environments.	Collaborate with firms on productivity-linked pay systems.
Investors			
Policy Makers			
Labor Unions			

Shareholders	ROA is vulnerable to LEXR; other indicators less impactful.	Dividends may shrink if macroeconomic risks persist.	Advocate for efficient risk management and cost containment strategies.
	The exchange rate (LEXR) has a significant negative effect on ROA ($\beta = -0.399$, $p=0.0023$), indicating exchange rate volatility impacts profitability.	Financial performance can be distorted by unmitigated FX volatility, potentially affecting investor confidence.	Strengthen disclosure requirements on FX exposure and its management; encourage firms to report currency risk mitigation strategies transparently.
Regulators (e.g., SEC, FRCN)		Sector's profitability is threatened by import dependency.	Incentivize local sourcing and raw material substitution.
Consumer Goods Sector	FX rate sensitivity is a sector-wide challenge. ROA model indicates external macro risks are more influential than internal efficiency.	Highlights vulnerability to inflation, FX, and global shocks.	Build resilience via automation, FX hedging, and export diversification.
Manufacturing Firms	Similar macroeconomic exposures likely (FX, inflation).	Could face parallel performance risks as Nigeria.	Strengthen regional trade and financial risk-sharing frameworks.
Firms in Sub-Saharan Africa	High DW statistic (2.23) and low heteroskedasticity confirm model reliability.	Encouraging for statistical confidence, but FX exposure remains a red flag.	Use Nigeria as a case study to evaluate ROI under FX stress.
Global Investors			

Source: *Author's adoption, 2025.*

4.1. Limitation of the study

This study is limited by its focus on a single consumer goods firm – Nestlé Nigeria Plc which may affect the generalizability of the findings. While the firm is a leading player in the sector and offers insightful data over a long period (2002–2024), its compensation structure, operational dynamics, and market environment may not fully represent those of other firms within the broader consumer goods industry or across sub-Saharan Africa. Therefore, caution should be applied in extrapolating these results to firms with differing corporate governance systems, size, ownership structures, or operational complexities.

5. Conclusion and Recommendations

This study investigated how directors' remuneration, salaries/wages/allowances, and employee benefits influence Return On Assets (ROA) in Nigeria's consumer goods sector. The regression results revealed that none of the compensation-related variables (DRE, SWA, EBS) had a statistically significant effect on ROA at the 5% level. Specifically, directors' remuneration showed a positive but insignificant effect ($p=0.1066$), salaries and wages had a negative and insignificant effect ($p=0.3812$), and employee benefits showed a near-zero and insignificant effect ($p=0.9938$). However, Inflation (INF) and GDP Growth Rate (GDPGR) also

showed weak and insignificant effects ($p=0.6637$ and $p=0.6005$, respectively), suggesting that macroeconomic conditions were not strong direct predictors of firm profitability in this context. Only the exchange rate (EXR) had a significant and negative effect on ROA ($p=0.0023$), underscoring the role of external shocks. The overall model was statistically significant (F- statistic = 14.71, $p < 0.001$), explaining about 88% of the variation in Return on Assets (ROA) among consumer goods firms ($R^2 = 0.88$). It therefore recommends that: Management should revisit compensation strategies to align rewards with measurable performance outcomes. Directors' pay structures should include performance-based components to enhance accountability. Non-financial motivators (e.g., career growth, recognition) should complement monetary rewards. Policy makers should address exchange rate instability, which significantly undermines firm profitability. Investors should assess macroeconomic risks such as FX exposure alongside internal efficiency when making decisions. Future studies should consider industry-specific performance indicators beyond ROA for broader insights.

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