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EFFECT OF FIRM CHARACTERISTICS AND SOME KEY MONETARY VARIABLES ON THE FINANCIAL PERFORMANCE OF UNILEVER NIGERIA PLC



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Keywords

ARDL Exchange rate Financial performance Firm characteristics Inflation rate Managerial efficiency.

JEL Classification: C40; E40; F31; L23. The purpose of this paper is to examine the influence of firm characteristics and some key monetary variables on the financial performance of Unilever Nigeria Plc. The variables used are financial performance, capital structure, dividend policy, managerial efficiency, inflation rate, interest rate and exchange rate. The autoregressive distributive lag (ARDL) model was used for the study. The findings show that capital structure and managerial efficiency have a significant positive effect on the financial performance of the sampled company; however, dividend policy has no significant influence on the financial performance of the company. Similarly, from the key monetary variables aspect, the study discovered that inflation rate and exchange rate have a significant positive influence on the financial performance of the company, while interest rate has a significant negative effect on the company's financial performance. Based on these, this study suggests the need for the company to increase its effort to improve its capital structure and managerial efficiency. In addition, the study suggests the need for the company to consider the volatility of inflation and exchange rate when making investment decisions. Finally, the lending rate should be reduced by the deposit money banks for the company to gain easy access to capital to increase its investments and financial performance.

Contribution/Originality: The article is the first to contribute to the literature on the link between firm characteristics and financial performance of Unilever Nigeria Plc. Another unique aspect of the paper is that it is the first that models the connection between the key monetary variables and financial performance of Unilever Nigeria Plc. Hence, the empirical results will help the government and investors in making informed policy and investment decisions.

1. INTRODUCTION

Corporate organizations the world over constitute the cradle of economic growth and development. They equally form the basis of how firms are characterized and upon which the macroeconomic system and subsystem of a nation are based, thus making it possible for economic control, coordination and direction of the flow of wealth, job creation, and goods and services for national advancement. Both economic theory and historical experience support the importance of finding ways of achieving good financial performance for long-term prosperity and survival of individual firms. However, firm characteristics are assumed to be a significant determinant of corporate financial performance.

Apart from the foregoing development, businesses are established to flourish, maximize profit, and meet all aspirations of their respective stakeholders. Unfortunately, a series of monetary factors, such as lending rate, inflation rate and exchange rate, have led to financial constraints and the deterioration of firms' financial positions. Consequently, this makes it difficult for them to overcome the challenges of modern times. The disappearance of many independent firms is evidence of the significant failure in achieving acceptable financial performance.

The Nigerian economy's current difficulties have serious implications for many manufacturing firms, irrespective of size and nature. Owing to the economic recession and the recent Covid-19 pandemic, factories are closing down or operating below capacity, and employee retrenchment is widespread. All these events are strong signs of difficult phases of corporate life, representing various forms of financial difficulties and financial contractions. Although causes of financial difficulties and ineffective financial performance are numerous, they are caused by internal and external factors (Rose, 2015).

Within the external environment, recent changes in some key monetary factors and the economic recession experienced in Nigeria have led to the delisting of some firms from the Nigerian Stock Exchange. This has illustrated the consequence of monetary factors on corporate financial performance. More specifically, the sound financial performance of corporate firms is a perfect reflection of the stability of monetary variables. However, manufacturing is usually a small sector in African economic development. Additionally, the government of Nigeria has introduced numerous policies over the years with the aim of revitalizing the sector. Thus, despite the introduction of the foregoing, the performance of this sector in Nigeria is low compared to other sectors of the economy. For instance, the contributions of the sector declined to 0.43%, 8.78% and 1.51% in the first, second and third quarters of 2020, respectively (NBS, 2020).

However, recent empirical studies in Nigeria (Abubakar, 2015; Charles, Joseph, & Jane, 2018; Rodah & Matanda, 2020) focused on the direct effect of firm characteristics on firm financial performance and found mixed and inconsistent results. These studies used a panel dataset in their estimation and neglected the specific effect of firm characteristics on the financial performance of individual firms. Thus, this study fills in the gap by estimating the effect of firm characteristics on the financial performance of individual firms using Unilever Nigeria Plc as a case study. In addition, previous studies have failed to capture the effect of some key monetary variables, such as lending rate, inflation rate and exchange rate, on a firm's financial performance.

This study is divided into five sections. Following the introduction, section two presents a theoretical framework and review of related empirical studies. Section three details the data and methodology used. Section four consists of the results and discussions, and section five comprises the conclusion and recommendations.

2. LITERATURE REVIEW

This study adopts the agency and growth theories as the theoretical underpinning due to their relevance in corporate governance and the manufacturing sector. The agency theory remains the most frequent, recognized and widely used theoretical framework in studies related to corporate governance and financial performance (Sanda, Mikailu, & Garba, 2010; Solomon, 2010). Agency theory argues that the decision regarding a firm's capital structure and dividend policy creates conflict between shareholders and managers, and these affect the leverage of corporate organizations. This encourages or constrains managers in making decisions in the interest of shareholders and will influence the operational decisions and corporate financial performance. On the other hand, the growth theory provides clarification on how managerial efficiency and firm size contribute to the management of a firm's resources and the generation of productive opportunities for growth, innovation and sustainable financial performance. In addition, the experience and skills of managers assist in effective management and optimal

utilization of limited resources. The theory acknowledges that the manager plays an important role in the effective utilization of a firm's limited resources to produce new products, improve productive capacity, and achieve sound financial performance (Sanda et al., 2010; Solomon, 2010).

Numerous empirical studies have been conducted related to firm characteristics and financial performance both within and outside Nigeria. For instance, Charles et al. (2018) carried out a study on how firm size, firm age, sales growth, leverage and liquidity influence the profitability of consumer goods manufacturing firms listed on the Nigerian Stock Exchange using an annual panel dataset from 2011 to 2016. By applying fixed and random effects regressions, the findings indicated that firm size, sales growth, leverage, firm age and liquidity had no significant effect on the profitability of consumer goods manufacturing firms in Nigeria over the study period. Yodit (2017) analyzed the sources of profitability of food and beverages of large manufacturing firms in Addis Ababa, Ethiopia, using an annual panel dataset for a sample of 14 firms from 2011 to 2015. He applied a pooled least squares regression and the results show that leverage, firm size and capital intensity had a significant negative impact on the profitability of the sampled firms. On the other hand, the results indicated that managerial efficiency had a positive significant influence on the sampled firms.

Studies on the nexus between capital structure and firms' financial performance have been carried out by many researchers. For instance, Oyedokun, Olatuji, and Sanyaolu (2018) used panel regression analysis to estimate the effect of capital structure on the financial performance of firms in Nigeria using a sample of 10 manufacturing firms from 2007 to 2016. The findings reveal that there is a statistically significant relationship between capital structure and financial performance. Also, Arikekpa (2020) applied a fixed effects regression and investigated the relationship between capital structure and financial performance of selected manufacturing companies in Nigeria. He used an annual panel dataset from 2014 to 2018, and the findings show that capital structure has a significant positive effect on financial performance. Moreover, Mukumbi, Khisa, and Shu (2020) asserted that there is a positive and statistically significant relationship between capital structure and financial performance. Noreover, Mukumbi, Khisa, and Shu (2020) asserted that there is a positive and statistically significant relationship between capital structure and financial performance. Moreover, Mukumbi, Khisa, and Shu (2020) asserted that there is a positive and statistically significant relationship between capital structure and financial performance of the firms listed on the Nairobi Security Exchange in Kenya.

Additionally, the relationship between dividend policy and financial performance was tested by Rafindadi and Bello (2019) using panel regressions for a sample of 21 listed financial companies in Nigeria from 1997 to 2016. The findings affirm that return on assets and return on equity have a significant positive effect on the dividend payout ratio, while Tobin's Q and the market value of equity have a significant negative effect on dividend payout. The study further shows that leverage, liquidity ratio and firm size have no significant effect on the dividend payout ratio. Moreover, Ubesie, Emeka, and Cheluchi (2020) estimated the influence of dividend per share and the dividend payout ratio on the financial performance of manufacturing firms in Nigeria using panel dataset from 2009 to 2018 in Nigeria. They found that dividend per share has a significant positive effect on firms' financial performance, while the dividend payout ratio has no significant effect on financial performance. Similarly, Musa, Abubakar, and Garba (2020) found that dividend per share has a significant positive effect on financial performance of consumer goods manufacturing firms in Nigeria.

Studies on the link between firm size and financial performance of consumer goods manufacturing firms have been carried out by numerous researchers. Akinyomi and Adebayo (2015) and Oyelade (2019) asserted that firm size has a significant positive effect on firms' financial performance, while Abeyrathna and Priyadarshana (2019) showed that firm size has no significant influence on the financial performance of manufacturing firms.

Empirical studies on the effect of key monetary variables, such as inflation rate, exchange rate and interest rate, have been tested by many authors. For instance, Mensah, Awunyo-Vitor, and Asare-Menako (2013) investigated the relationship between exchange rate volatility and employment growth in the manufacturing sector in Ghana. The study covered the period from 1990 to 2010 and used the ordinary least squares for the analysis. The results show that exchange rate volatility and interest rate are negatively related to employment growth in the manufacturing sector. Results further reveal that inflation is positively related to the employment growth rate of

the manufacturing sector. Ailemen, Akhanolu, and Chibuzor (2016) conducted an empirical study titled "Deregulation of the foreign exchange market and industrial products in Nigeria". They applied the OLS method and used annual data from 1970 to 2013. The results show that exchange rate and inflation have a negative influence on industrial products. Ibrahim and Amin (2005) conducted a study on how the exchange rate and monetary policy rate affect the manufacturing output in Malaysia. Quarterly data from the first quarter of 1979 to the last quarter of 1999 were used and vector autoregressive (VAR) models were applied. The results indicated that exchange and monetary policy rate significantly influence manufacturing output. Hodge (2012) examined the extent to which exchange rate and Dutch diseases affect the manufacturing sector in South Africa. A Johansen vector autoregressive cointegration approach was employed, and quarterly data covering the period from 1980 to 2010 were used. His findings show that the exchange rate is negatively related to manufacturing output. Lotfalipour, Ashena, and Zabihi (2013) analyzed the effect of the exchange rate on investment in the manufacturing sector in Iran using an annual dataset from 1995 to 2009. They found that exchange rate fluctuations are negatively connected to investment in the manufacturing sector.

Asaleye, Maimako, Inegbedion, Lawal, and Ogundipe (2021) used a structural vector autoregression (SVAR) model to analyze the short- and long-run influences of exchange rate on the performance of the manufacturing sector in Nigeria. The findings indicated that one standard deviation shock in exchange rate has an adverse effect on the output of the manufacturing sector. Furthermore, Onwuka (2021) studied the impact of exchange rate volatility on manufacturing sector performance in Nigeria using an annual time series dataset from 1981 to 2020. The study applied the generalized autoregressive conditional heteroskedasticity (GARCH) and the autoregressive distributed lag (ARDL) models. The results indicated that exchange rate volatility, interest rate and inflation rate have a significant negative impact on manufacturing sector performance. In addition, Usio and Adofu (2021) estimated the influence of lending rate on the growth of the manufacturing sector in Nigeria by applying an annual time series dataset from 1986 to 2020. They used ordinary least squares (OLS) regressions and found that lending rate and inflation rate have no significant effect on the manufacturing sector growth rate in Nigeria. Finally, Mlambo (2020) estimated the influence of exchange rate on manufacturing sector performance in Southern African Customs Union (SACU) states. In the estimation, the study used a panel dataset from 1995 to 2016 and applied the fully modified ordinary least squares (FMOLS) regression and pooled mean group (PMG) approaches. The results indicated that the exchange rate has a significant negative effect on manufacturing performance, while inflation has a significant positive influence on manufacturing sector performance.

3. DATA AND METHODOLOGY

This study used an annual time series dataset from 1990 to 2021 sourced from the Central Bank of Nigeria Statistical Bulletin and the annual financial reports of Unilever Nigeria Plc. The period selected coincides with financial and macroeconomic challenges and policy reforms, such as the exchange rate management policy, the privatization and National Economic Empowerment and Development Strategy (NEEDS), global economic crises, and the Covid-19 pandemic, among others, in Nigeria. The variables used are financial performance (measured as return on assets, which is profit after tax to total assets), capital structure (measured as total debt to total equity), dividend policy (measured as dividend per share to the market price per share), managerial efficiency (measured as total revenue to total assets), inflation rate, interest rate and exchange rate. The functional model is specified as:

ROA = f(CS, DP ME INF INT EXR)

(1)

Equation 1 states that financial performance measured as return on assets is a function of capital structure, dividend policy, managerial efficency, inflation rate, interest rate and exchange rate. The econometric equation of the function above is presented as:

$$ROA_{t} = \beta_{0} + \beta_{1}CS_{t-1} + \beta_{2}DP_{t-1} + \beta_{3}MGE_{t-1} + \beta_{4}INF_{t-1} + \beta_{5}INT_{t-1} + \beta_{6}EXR_{t-1} + \mu_{t}$$
(2)

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From Equation 2, ROA is the return on assets, which is a measure of financial performance, CS denotes capital structure, DP represents dividend policy, MGE is managerial efficiency, INF represents inflation rate, INT is the interest rate, and EXR is the exchange rate. β_0 to β_6 are the intercept coefficients and estimated parameters, while μ is the error term or white noise. However, this study applied the autoregressive distributed lag (ARDL) model to estimate the linkages of the variables. The rationale behind the use of the ARDL method is that it is applicable irrespective of whether the variables are integrated of order zero (I(0)) or after the first difference (I(1)). In addition, the approach is suitable regardless of sample size. Also, to avoid presenting spurious results and to ensure that no I(2) series is included in the models, this paper applied the augmented Dickey–Fuller (ADF) and Phillips–Perron (PP) stationarity (unit root) approaches. Moreover, to account for both the short-run and long-run, Equation 2 transforms to the ARDL approach developed by Pesaran, Shin, and Smith (2001) and is stated as:

$$\Delta ROA_{t} = \beta_{o} + \sum_{i=1}^{m} \beta_{1} \Delta ROA_{t-i} + \sum_{i=1}^{m} \beta_{2} \Delta CS_{t-i} + \sum_{i=1}^{m} \beta_{3} \Delta DP_{t-i} + \sum_{i=1}^{m} \beta_{4} \Delta MGE_{t-i} + \sum_{i=1}^{m} \beta_{5} \Delta INF_{t-i}$$

$$+ \sum_{i=1}^{m} \beta_{6} \Delta INT_{t-i} + \sum_{i=1}^{m} \beta_{7} \Delta EXT_{t-i} + \alpha_{1}ROA_{t-1} + \alpha_{2}CS_{t-1} + \alpha_{3}DP_{t-1} + \alpha_{4}MGE_{t-1} + \alpha_{5}INF_{t-1}$$

$$+ \alpha_{6}INT_{t-1} + \alpha_{7}EXR_{t-1} + \mu_{t} \qquad (3)$$

Where Δ is the first difference operator, L represents the natural logarithm, m stands for optimal lag, β_1 to β_7 are the coefficients of the short-run parameters, while α_1 to α_7 are the long-run coefficients of the variables in the equations. β_0 is the constant and μ is the error term. All other variables are as defined in Equation 2. However, the error correction representation of Equation 3 is formulated as:

$$\Delta ROA_{t} = \beta_{o} + \sum_{i=1}^{m} \beta_{1} \Delta ROA_{t-i} + \sum_{i=1}^{m} \beta_{2} \Delta CS_{t-i} + \sum_{i=1}^{m} \beta_{3} \Delta DP_{t-i} + \sum_{i=1}^{m} \beta_{4} \Delta MGE_{t-i} + \sum_{i=1}^{m} \beta_{5} \Delta INF_{t-i} + \sum_{i=1}^{m} \beta_{6} \Delta INT_{t-i} + \sum_{i=1}^{m} \beta_{7} \Delta EXR_{t-i} + \Omega ECM_{t-1}$$
(4)

Where ECM is the error correction model generated from the ARDL models, and Ω is the coefficient of the ECM which express the speed of adjustment back to equilibrium in case of any distortion in the economy.

4. RESULTS AND DISCUSSION

This section presents the results of the descriptive and inferential statistics generated from the analysis. The results of the descriptive analysis are reported in Table 1.

Table 1 shows that there are 32 observations per variable. The means of all the variables are positive, which shows that the variables recorded a positive growth rate over the sample period. However, the results show that the exchange rate has the highest standard deviation, while return on assets has the lowest standard deviation. This implies that the fluctuation of the exchange rate is higher, whereas that of return on assets is the lowest in the distribution.

The results further affirm that return on assets, capital structure, dividend policy, inflation rate and interest rate are not normally distributed, while the exchange rate is normally distributed. This is due to the significant probability values of the variables.

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03 1.163 23 0.375 76 15.376 73 -6.952	1.632 1.764 2.537 0.583	$ \begin{array}{r} 17.851 \\ 12.156 \\ 72.835 \\ 5.388 \\ \end{array} $	19.119 17.871 31.650 15.135	139.458 128.937 406.210
76 15.376	2.537	72.835	31.650	406.210
73 -6.952	0.583	5.388	15 195	0.000
			10.130	8.038
15 3.974	0.604	16.418	3.634	110.806
21 2.707	-0.397	2.185	1.571	0.899
95 11.468	1.873	6.661	5.666	3.220
425 134.740	2.534	43.335	22.657	4.378
0.000 00	0.281	0.000	0.000	0.111
2 32	32	32	32	32
	21 2.707 195 11.468 1425 134.740 00 0.000 2 32	21 2.707 -0.397 395 11.468 1.873 425 134.740 2.534 00 0.000 0.281 2 32 32	21 2.707 -0.397 2.185 995 11.468 1.873 6.661 425 134.740 2.534 43.335 00 0.000 0.281 0.000 2 32 32 32	21 2.707 -0.397 2.185 1.571 95 11.468 1.873 6.661 5.666 425 134.740 2.534 43.335 22.657 00 0.000 0.281 0.000 0.000

Table 1	Summary	statistics	of the	variables	under estima	ation

However, in the inferential analysis, this study started with unit root tests using the augmented Dickey–Fuller and Phillips–Perron tests. The results are reported in Table 2.

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	Augmented D	ickey–Fuller	Phillips–Perron		
Variable	Level	First Diff.	Level	First Diff.	
ROA	-5.466***	-9.000	-5.465***	-29.662	
CS	-7.288***	-4.903	-1.937	-5.666***	
DP	-0.762	- 5.432 ***	-0.783	- 5.432 ** *	
MGE	-3.453*	-3.212	-2.302	-2.822*	
INF	-2.703	- 4.453***	-2.925	- 4.442 ** *	
INT	-4.092*	-6.938	-4.076*	-8.296	
EXR	-0.762	- 5.432 ** *	-0.783	- 5.432 ** *	

Note: *** and * indicate significance at 1% and 10%, respectively. Diff represents difference. Return on assets, capital structure, dividend policy, managerial efficiency, inflation rate, interest rate, and exchange rate.

According to the results presented in Table 2, the ADF test indicates that return on assets, capital structure, managerial efficiency and interest rate are stationary at level, while dividend policy, inflation rate and exchange rate are stationary after the first difference. However, the PP test shows that return on assets and interest rate are stationary at level, while capital structure, dividend policy, managerial efficiency, inflation rate and exchange rate are stationary after the first difference. As indicated by the unit root test results, the variables have different orders of integration, some are stationary at level and others are stationery after the first difference. Thus, it is concluded that the ARDL model is the most powerful technique in dealing with such results. Consequently, this study goes further and examines the bound test of the ARDL model and the results are reported in Table 3.

From Table 3, the results show that there is evidence of cointegration among the variables. This is because the F-statistics value (17.48) is greater than the critical value bounds, even at a 1% level of significance. The evidence of cointegration allows for the estimation of both the long-run and short-run nexus of the variables.

Additionally, results in Table 3 indicate that capital structure has a significant positive effect on the financial performance of Unilever Nigeria Plc. When capital structure rises by 1%, the financial performance of the sampled company will increase by 0.02%. This is in line with the results of Arikekpa (2020) and Mukumbi et al. (2020), who revealed that capital structure has a significant positive influence on the financial performance of consumer goods manufacturing firms. On the other hand, the results indicate that dividend policy has no significant influence on the financial performance of Unilever Nigeria Plc. The findings of this study contradict the results of Rafindadi and Bello (2019) and Ubesie et al. (2020), who discovered a significant positive relationship between dividend policy and the financial performance. The contradictions are due to the application of different data analysis techniques and study period. In addition, this study used a time series dataset, while the previous studies used a panel dataset.

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	17.48			
I(0) Bo	ounds	ounds		
1.9	9	2.94		
2.2	7	3.28		
2.8	8	3.99		
icial Performance ((measured as Ret	turn on Assets)		
Coefficient	Std. Error	t-Statistics	Prob.	
0.022	0.004	4.427	0.000	
-0.001	0.002	-0.380	0.709	
0.359	0.033	10.871	0.000	
0.001	0.000	3.306	0.005	
-0.019	0.002	-6.863	0.000	
0.001	0.000	7.513	0.000	
-0.404	0.071	-5.688	0.000	
	1.9 2.2 2.8 acial Performance (Coefficient 0.022 -0.001 0.359 0.001 -0.019 0.001	Coefficient Std. Error 0.022 0.004 -0.001 0.002 0.359 0.033 0.001 0.000 -0.019 0.002 0.001 0.000	I(0) Bounds I(1) B 1.99 2.1 2.27 3.1 2.88 3.1 acial Performance (measured as Return on Assets) 3.1 Coefficient Std. Error t-Statistics 0.022 0.004 4.427 -0.001 0.002 -0.380 0.359 0.033 10.871 0.001 0.000 3.306 -0.019 0.002 -6.863 0.001 0.000 7.513	

Table 3. Bound	test and	run coefficient	s of the ARDL	model
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Note: R² = 0.94; Adj. R² = 0.88; Akaike Information Criterion = -4.7953; Schwarz Information Criterion = -4.0480; Hannan-Quinn Information Criterion = -4.5563; Durbin–Watson = 1.99; F-Stat. = 16.51 (0.0000).

The results show that there is a positive and statistically significant relationship between managerial efficiency and the financial performance of Unilever Nigeria Plc. An increase or decrease in managerial efficiency will lead to an increase or decrease in the financial performance of the company. This result is in line with the work of Yodit (2017), who attested that managerial efficiency positively contributes to the financial performance of consumer goods manufacturing firms. Furthermore, the results show that there is a significant positive relationship between inflation and the financial performance of the sampled firm in Nigeria at a 1% level. The results indicate that Unilever generates more profit when there is a persistent increase in the prices of commodities in Nigeria. This is expected because the company is foreign and is not using local raw materials in its production processes. The result conforms with the work of Mensah et al. (2013), who revealed a positive relationship between the inflation rate and the manufacturing sector, but does not conform with the work of Ailemen et al. (2016), who showed that inflation harms the manufacturing sector. The difference in these findings is due to structural and cyclical changes in the economy, such as economic recession and policy reforms. On the other hand, the findings suggest that there is a significant negative relationship between the interest rate and the financial performance of Unilever Nigeria Plc. A 1% rise in the interest rate will lead to a decrease in financial performance by 0.02%. This is in agreement with the work of Mensah et al. (2013), who showed that there is a negative linkage between the interest rate and the performance of the manufacturing sector. Finally, the results reveal that there is a significant positive link between the exchange rate and the financial performance of Unilever in Nigeria. An increase (decrease) in the exchange rate will lead to an increase (decrease) in the financial performance of the selected company over the sampled period. This also shows that the exchange rate plays a significant role in the investment decisions of the sampled firm. However, the results testify the works of Abdul-Mumuni (2016); Mensah et al. (2013) and Innocent, Matthew, and Chike (2013).

Dependent Variable: ΔFinancial Performance (measured as Return on Assets)							
Variable	Coefficient	Std. Error	t-Statistics	P-value			
Δ (Capital structure)	-0.036	0.002	-12.488	0.000			
Δ (Dividend policy)	-0.001	0.001	-0.901	0.382			
Δ (Managerial efficiency)	0.034	0.029	1.162	0.264			
Δ (Inflation rate)	0.002	0.000	5.653	0.000			
Δ (Interest rate)	-0.0100	0.001	-7.711	0.000			
Δ (Exchange rate)	0.000	0.000	3.033	0.008			
Error Correction Model (-1)	-0.883	0.222	-3.966	0.000			
Note: Serial correlation = 1.3123 (0.3052); Heteroscedasticity = 0.9487 (0.5416); Normality test = 2.5053 (0.2857).							

Table 4. Estimated short-run coefficients of the ARDL model.

The short-run results presented in Table 4 show that capital structure and interest rate have a significant negative influence on the financial performance of Unilever Nigeria Plc. An increase or decrease in capital structure

and interest rate will lead to an increase or decrease the financial performance in the short run. Furthermore, the results show that dividend policy and managerial efficiency have no significant influence on financial performance, while inflation rate and exchange rate have a significant positive effect on the financial performance of Unilever Nigeria Plc in the short run. The error correction model has the correct sign; it is negative, less than one (-0.88), and statistically significant at 1%. This is evidence of the presence of cointegration among the variables. In addition, the error correction term will correct itself in the case of any distortion in the economy to the equilibrium level at the speed of 88%. Finally, to ensure that the results are correct, post-estimation tests using autocorrelation, heteroskedasticity and normality test were conducted. From the results summarized in Table 4, it is acknowledged that the model is free from serial correlation, heteroskedasticity and normality roblems. This is due to the insignificant probability values of the tests.

5. CONCLUSIONS AND RECOMMENDATIONS

Based on the results, this study concludes that capital structure, managerial efficiency, inflation rate and exchange rate have a significant positive effect on the financial performance of the sampled company, while interest rate has a significant negative effect. The study also concludes that dividend policy has no significant effect on the financial performance of Unilever Nigeria Plc. In line with the results, the study recommends the need for the company to intensify its efforts in improving capital structure and managerial efficiency because of their positive influence on financial performance. In addition, there is a need for the company to follow the trends of inflation and exchange rate when making investment decisions. This is because the variables play a significant role in determining the financial and operational performance of the company. Finally, to increase the financial performance of Unilever Nigeria Plc and related consumer goods manufacturing companies, this study recommends the need for lending agencies, such as deposit money banks, to reduce the interest rate.

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REFERENCES

- Abdul-Mumuni, A. (2016). Exchange rate variability and manufacturing sector performance in Ghana: Evidence from cointegration analysis. *International Economics and Business, 2*(1), 1-14. Available at: https://doi.org/10.5296/ieb.v2i1.9626.
- Abeyrathna, S., & Priyadarshana, A. (2019). Impact of firm size on profitability. International Journal of Scientific and Research Publications, 9(6), 561-564. Available at: https://doi.org/10.29322/ijsrp.9.06.2019.p9081.
- Abubakar, Y. (2015). Ownership structure and financial performance of quoted building materials firms in Nigeria. Unpublished M.Sc. Thesis, Department of Accounting Faculty of Administration, ABU Zaria.
- Ailemen, I. O., Akhanolu, I. A., & Chibuzor, O. T. (2016). Deregulation of foreign exchange market and its effect on industrial produce in Nigeria. Asian Journal of Information Technology, 15(13), 2101-2107.
- Akinyomi, O. J., & Adebayo, O. (2015). Effect of firm size on profitability: Evidence from Nigerian manufacturing sector. *Prime Journal of Business Administration and Management*, 3(9), 1171-1175.
- Arikekpa, O. A. (2020). Capital structure and firm performance: An empirical study of manufacturing company in Nigeria. *Wa'd Journal of Finance and Investment Research*, 5(1), 14-21.
- Asaleye, A. J., Maimako, R. F., Inegbedion, H., Lawal, A. I., & Ogundipe, A. A. (2021). Real exchange rate and manufacturing performance in Nigeria. *Academic Journal of Interdisciplinary Studies*, 10(2), 279-279.
- Charles, Y., Joseph, C., & Jane, S. (2018). Effects of dividend policy on firm's financial performance: Econometric analysis of listed manufacturing firms in Kenya. *Research Journal of Finance and Accounting*, 5(12), 10-27.

- Hodge, D. (2012). The exchange rate, Dutch diseases and manufacturing in South Africa: What do the data say? Economic Research Southern Africa, Working Paper No. 281.
- Ibrahim, M. H., & Amin, R. M. (2005). Exchange rate, monetary policy rate and manufacturing output in Malaysia. *Journal of Economics Cooperation*, 26(3), 103-130.
- Innocent, E. C., Matthew, O. M., & Chike, N. (2013). Effect of exchange rate fluctuations on manufacturing sector in Nigeria. *European Journal of Business and Management*, 5(22), 67-73.
- Lotfalipour, M., Ashena, M., & Zabihi, M. (2013). Exchange rate impacts on investment of manufacturing sectors in Iran. Business and Economic Research, 3(2), 12-22.
- Mensah, M., Awunyo-Vitor, D., & Asare-Menako, H. (2013). Exchange rate volatility and employment growth in Ghana's manufacturing sector. *International Journal of Business and Social Science*, 4(4), 225-232.
- Mlambo, C. (2020). Exchange rate and manufacturing sector performance in SACU states. Cogent Business & Management, 7(1), 1787735.
- Mukumbi, C. M., Khisa, W. E., & Shu, J. (2020). Effect of capital structure and the financial performance of non-financial firm's quarter at the Nairobi security exchange. *International Journal of Science and Business*, 4(4), 165-179.
- Musa, F., Abubakar, I. A., & Garba, M. (2020). Dividend policy and financial performance of consumer goods companies in Nigeria. *International Journal of Research in Commerce and Management Studies*, 2(2), 199-215.
- NBS. (2020). Gross domestic product report, fourth quarter, 2020 (pp. 1-152). Nigeria: National Bureau of Statistics.
- Onwuka, C. E. (2021). Exchange rate volatility and the performance of manufacturing sector in Nigeria: An econometric analysis. Electronic copy. Retrieved from: https://ssrn.com/abstract=3970479.
- Oyedokun, G. E. K. A., Olatuji, J. K. A., & Sanyaolu, W. A. (2018). Capital structure and firm financial performance in Nigeria. International Accounting and Taxation Research Group, 2(1), 56-71.
- Oyelade, A. O. (2019). The impact of firm size on firms' performance in Nigeria: A comparative study of selected firms in the building industry in Nigeria. *Asian Development Policy Review*, 7(1), 1-11.
- Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16(3), 289-326.
- Rafindadi, A. A., & Bello, A. (2019). Is dividend payment of any influence to corporate performance in Nigeria? Empirical evidence from panel cointegration. *International Journal of Economics and Financial Issues*, 9(2), 48-58.
- Rodah, N. M. i., & Matanda, J. W. (2020). Effect of firm characteristics on financial performance of listed commercial banks in Kenya. *International Journal of Economics and Financial Issues*, 10(3), 255-262.
- Rose, O. (2015). An exploration into the socio-economic effects of retrenchment: Evidence from Nigeria. Journal of Economics and Sustainable development, 6(18), 224-356.
- Sanda, A. U., Mikailu, A. S., & Garba, T. (2010). Corporate governance mechanisms and firms' financial performance in Nigeria. Afro-Asian Journal of Finance and Accounting, 2(1), 22-39.
- Solomon, J. (2010). Corporate governance and accountability (3rd ed.). Chichester, UK: John Wiley & Sons Ltd.
- Ubesie, C. M., Emeka, E. C., & Cheluchi, I. F. (2020). Effect of dividend policy on financial performance of consumer goods manufacturing firms in Nigeria. *Science Journal of Business and Management*, 8(1), 7-15.
- Usio, U. T., & Adofu, I. (2021). Lending rate and manufacturing sector growth in Nigeria. Journal of Economics and Allied Research, 6(2), 235-244.
- Yodit, Y. W. (2017). Determinants of profitability: Evidence from large manufacturing food and beverage companies of Addis Ababa. Unpublished M.Sc. Thesis, Department of Accounting and Finance, Addis Ababa University Addis Ababa, Ethiopia.

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