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Liability Management and Performance of Listed Construction Companies in Nigeria

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Abstract: The study was conducted to investigate the impact of liability management on the performance of construction companies in Nigeria. The research was motivated by apparent paradigm shifts by construction companies which have brought about additional risks to their operations. Liability management is a management tool to maximize investment returns while minimizing risks. The effective management of liabilities of companies is essential to their sound financial success. Ex-post facto research design was adopted; data were obtained from annual reports of quoted construction companies on the Nigerian exchange group (NGX) which covers a period of ten (10) years from 2012 to 2021. The independent variables used were Debt to asset ratio (DAR), Debt to equity ratio (DER) and Quick ratio (QR) while the dependent variable is Return on assets (ROA). The influence of individual independent variables was tested against Return on assets (ROA) using simple regression technique, SPSS 23 package was used for analysis. An examination of the result for variable inclusion revealed that DAR, DER and QR have positive influence on ROA. It was recommended that Construction companies should endeavor to put in place proper liability management policies to help in maximizing their profit while simultaneously boosting the efficiency and effectiveness with which liabilities are utilized to generate turnover. Construction companies should make more investments in real assets and keep more of cash and cash equivalents as they are capable of yielding higher coefficients in generating profit. Construction companies should avoid high levels of debt as these have a negative impact on profitability.

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Introduction

Liability Management is any continuous management process that defines, implements, monitors and back tests financial strategies to manage a firm's liabilities (Deelstra and Jansesen, 2002). Business entities operate in a very dynamic environment as a result of rapid changes in technology, consumer tastes, economic and social forces (Fagbemi and Olowokudejo, 2011). Liability management strategy aids in the achievement of financial goals for given levels of risk and under predefined constraints. Owing to the increase of technicalities in companies' activities and regulation, and the use of increased complex models, liability management plays a pivotal role in a company's financial strategy. Corlosquet-Habart *et al.* (2015) give the objective of Liability management as that of ensuring the proper coordination between assets and liabilities to achieve the financial targets for a specified level of risk and under predefined constraints.

Performance is a measure of economic gains realized by a firm in relation to the capital invested. This level of economic success can be determined by the amount of reported profits in a financial year. Zopounidis, (2001) stated that business environment is characterized by risks and uncertainties. To effectively compete in the market place, companies manage their assets and liabilities taking into consideration the risk level, earnings, liquidity, profit, solvency to mitigate losses and thus improve profitability. Since liability management plays a critical role in risk management, it is imperative that companies recognize the asset liability importance and apply effective risk management procedures. Better liability management has the tendency to absorb risks that a construction company can face. Moreover, liability management is the perquisite condition for the efficiency and growth of companies. For a company to attain the same objectives then it has to ensure proper liability management, including liquidity risk management and credit risk management, (Francis, 2007 as cited in (Makau and Memba, 2014).

Liability management is comprehensive and dynamic framework used to measure, monitor and manage the market risk of a company. It is the management of structure of statement of financial position in such a manner that the net earnings are maximized within the overall risk-preference of the firm; ensures that all the relevant asset and liability classes are managed in an integrated fashion. The values of the assets and the liabilities are influenced by, amongst others, management strategy and economic circumstances.

Construction companies over the years have been undergoing various paradigm shifts. Some of which include registration in the legal framework and the use of commercial sources of funding. This rapid expansion and development of construction

companies brought about additional risks to their operations and statement of financial position. When construction companies attain unfavourable liability management, most often, it leads to liquidity of such companies. The need to always ascertain liability and liquidity ratio such as debt to asset ratio, debt to equity ratio and quick ratio is therefore essential in other to curb the additional risks in the statement of financial position and ensure that there is optimum balance in the company.

Globally, companies including construction companies have a very active and vital role to play in the economies of both emerging and developed countries. This suggests that a company statement of financial position management is of the utmost significance, including the structure, amount, and maturity of the assets and liabilities owned by the company at any given time. It is also essential to ascertain liability and liquidity ratios and that the relationship between the statements of position products is crucial to optimizing earnings. This is also confirmed by Sayeed and Hogue (2012) who find that the performance of any company is directly influenced by the management of their assets and liabilities.

Liability Management applies generally to the mechanism by which an entity controls its statement of financial position to allow for alternate liquidity situations (Francis, 2017). Proper asset and liability management manages the uncertainties present in the company due to imbalances between assets and liabilities (Rosen and Zenios, 2016). There is, therefore, a possible link between liability management and firms' performance in any sector of the economy.

Statement of the Problem

The assessment and management of risk in the construction industry has undergone changes in the last couple of years. One of the major changes has been the identification of the risk of a mismatch between assets and liabilities which tends to be one of the critical risks. To cope with the changes in the environment, the industry has become more competitive and has been forced to effectively manage their asset and liability to mitigate various risks that arise due to mismatch between their assets and liabilities.

Determining the benchmark between liabilities and assets in a construction is mostly challenging. This is because for a business entity, there is always the presence of undesirable and unavoidable risks which the entity faces. Liability management does not just serve to protect from risk, it enables the entity to ensure that assets and liabilities are properly managed, thus enhancing overall net worth and maximizing the profitability of the organization (Ramlall, 2009; Tamiru, 2013). Since Liability Management aims at managing financial risk exposures associated with the assets backing liabilities, several

considerations must be made in the pursuit of an appropriate Liability management mix (Gilbert, 2016). These include what sources of financial risk should fall within the scope of Liability management; on what basis the risk should be measured and managed; what assets and what liabilities should be included, and which, if any, should be excluded.

Liability management has often been associated with financial institutions over times. Studies have shown that ineffective liability management as caused the downfall of companies other than financial institutions in recent times. Therefore, liability management has become an important and crucial topic for companies, not just financial institutions, over the last decade. The volatility of projected returns on their investments, the uncertainties associated with assets and the need for liquidity make companies pay more attention to their assets and the composition of their liabilities (Shetty, 2016), requires investigation in the construction sub-sector of the Nigerian economy.

A number of researchers have analyzed the determinants of performance of companies; Ramlall (2015) found that construction company profitability is influenced by both internal and external influences. Internal considerations are related to management, taking into account asset- responsibility management activities and external determinants, which reflect the economic and legal climate that influences the functioning and efficiency of companies. The effective composition of assets and liabilities of companies is essential to their sound financial success (Endaweke, 2015). Studies suggest that low liquidity ratios arising from long-term credit, and mismatches of assets and liabilities relationship are among the factors leading to the destabilization of the industry (Malekano, 2014). This was attributed to the weak handling of assets and liabilities of several companies.

The study is therefore aimed to investigate the influence of liability management on the performance of construction companies, in particular on the impact of liability ratios on the performance of the construction companies in Nigeria. Nevertheless, this study goes further to include other variables influencing Performance with relation to Liability management targeted factors are debt to asset ratio, debt to equity ratio and quick ratio and their effect on Performance of construction companies in Nigeria.

Objective of the Study

The objective of the study is to examine the effect of liability management on the performance of listed construction companies in Nigeria.

Research Hypotheses

To achieve the objective of this research, the following hypotheses were stated in null form:

H_{O1}: Debt to asset ratio has no significant effect on the return of asset of construction companies in Nigeria.

H_{O2}: Debt to equity ratio has no significant effect on the return of asset of construction companies in Nigeria.

H_{O3}: Quick ratio has no significant effect on the return of asset of construction companies in Nigeria.

Significance of the Study

The study on liability management and performance of listed construction companies in Nigeria is a very important study. The result of this study would be of great benefit to Nigeria as a nation. Investors both in and out of Nigeria would be able to recognize how companies manage their liabilities as well as their assets. Such information would be used to make informed decisions and judgment as regards to their investment in construction entities. Business owners and firms would be able to see the importance of liability management from the outcome of the study. It would pave the way for firms to recognize the importance of liability management. The result of this study will enable Government to tackle problems associated with liability management and come up with resourceful and efficient solutions in tackling such problems associated with liability management in order to boost the economy of the Nation. Also, it could also be used by other researchers as reference material.

Review of Related Literature

Conceptual Review

The variables of this study are reviewed and explained in this sub-section of the chapter.

Overview of Liability Management

Liability Management is defined by different scholars like Gup and Brooks (1993), Zawalinska (1999), and Charumati (2008). Charumati (2008) defined Liability Management as a dynamic process of planning, organizing, coordinating, and controlling liabilities; their mixes, volume, maturities, yield, and costs in order to achieve a specified net interest income (NII). In other words, it deals with the optimal investment of assets in view of meeting current goals and future liabilities. It is related to the management of the risks associated with liquidity mismatch, interest rates and foreign exchange movements. It is "managing liabilities for the purpose of minimizing the adverse impact of interest rate movement, providing liquidity and enhancing the

market value of equity. It is also defined as "planning procedure which accounts for liabilities of a firm by rate, amount and maturity." Generally, liability management is managing the liability mix to minimize the risk (Singh, 2013).

Liability management in recent years has become a tool of integrated analysis of liabilities and values not only the interest rate risk but the liquidity risk, solvency risk, firm strategies and asset allocation as well. The landscape of liability management for the firm is ever changing and the scope of liability management activities has widened. Organizations have adopted liability management strategies to address key risks such as; interest rate risks, liquidity risk and foreign exchange risk. A sound Liability Management process integrates strategic, profitability, and net worth planning with risk management. This process often includes a Liability Committee (LCO), which has the central purpose of attaining goals established by the short and long-term strategic plans without taking on undue risk.

Liquidity Management

Liquidity management involves a daily analysis and detailed estimation of the size and timing of cash inflows and outflows over the coming days and weeks to minimize the risk. Liquidity management is the position of a company to honor its short-term obligation when they fall due. For firms, it is crucial that they are at a favorable liquidity position at all times.

Liquidity is very important for assets and liability management as it measures the ability of the firms to meet its short-term obligations which in turn may influence its profitability (Khalid, 2012).

A firm must have effective liquidity and liability management strategy in order to ensure that low cost funds will always be available in an organization. Monnie (2003), and Anjili (2014) states that, the management of firms should consider it seriously the liquidity management because liquidity always goes to profitability, high liquid asset indicate that a less risky and less profitability because more liquid asset indicate increase in the facility to raise cash but it reduce the management decision to commit credibly to an investment approach which means the firms capacity to raise external finance will decrease, so the profitability of banks will decrease. The key liquidity ratio are:

Debt to Asset Ratio

The debt-to-total-assets ratio shows how much of a business is owned by creditors (people it has borrowed money from) compared with how much of the company's assets are owned by shareholders. It is one of three calculations used to measure debt capacity, along with the debt servicing ratio and the debt-to-equity ratio.

The higher a company's debt-to-total assets ratio, the more it is said to be leveraged. Highly leveraged companies carry more risk of missing debt payments should their revenues decline, and it is harder to raise new debt to get through a downturn (Investopedia, 2022).

Debt to Equity Ratio

The debt-to-equity ratio shows how much of a company is owned by creditors (people it has borrowed money from) compared with how much shareholder equity is held by the company. It is one of three calculations used to measure debt capacity—along with the debt servicing ratio and the debt-to-total assets ratio.

Debt capacity shows both a company's ability to service its current debt payments and its ability to raise cash through new debt, if necessary. This might include helping the company through a market downturn or helping the company take advantage of opportunities as they arise (BDC, 2021).

Quick Ratio

The quick ratio is an indicator of a company's short-term liquidity position and measures a company's ability to meet its short-term obligations with its most liquid assets. Since it indicates the company's ability to instantly use its near-cash assets (assets that can be converted quickly to cash) to pay down its current liabilities, it is also called the acid test ratio. An "acid test" is a slang term for a quick test designed to produce instant results (Investopedia, 2022).

Performance

Financial performance refers to the degree to which financial objectives have been realized during a particular period of time usually on annual basis. Financial Performance evaluation is the process of accessing the achievements of a firm's policies and activities in monetary terms.

Financial Performance is used to assess a firm's total financial sustainability over a given period of time and to compare and contrast similar firms across the same industry (Ravinder and Muskula, 2013; Yahaya and Lamidi, 2015). Oganda (2018) note that ROA is the ratio of total income to the total asset.

Return on Assets

Return on Assets is one of the profitability ratios of money that can describe a company's condition. Kasmir (2016) says ROA is a ratio that states the return on the number of

assets utilized in the company. ROA serves to know the level of effectiveness of the company's overall operations. The larger the ratio, the better because the company can use its assets effectively in generating profit. Olokoyo (2019) defined return on assets (ROA) as a financial ratio that reveals the rate of profit an organization earns in relation to its overall resources. ROA is an indicator of how lucrative a business entity is, in relation to its total assets. It is the main ratio that reveals the profitability level of banks.

Liquidity and its Impact on Performance

Liquidity relates to an institution's capacity to fulfill financing demands. Liquidity control involves ensuring that the organization has adequate liquidity and liquid assets. The control of liquidity includes a day-to-day review and a thorough forecast of the scale and pacing of cash inflows and outflows over the next several days and weeks. In order to handle liquidity, an organization requires a manual or computerized management information system that is adequate to obtain the information required to deliver accurate development and liquidity forecasts.

Anjili (2014), concluded that, since liquidity often hits profitability, the management of the firms should take it seriously, since liquidity implies less risky and less profitability, since more liquid assets increase the potential to raise the cash but reduce the decision to put a reliable commitment to investment approach.

Theoretical Review

The researcher used a two (2) theories to contextualize the study.

Liquidity Preference Theory

This concept was first expressed by Keynes (1989), this theory is also known as liquidity preference hypothesis, the idea of this theory is that investors need premium with longer maturities because they would prefer to hold cash, which entails less risk. When the investment is more liquid it is easy to sell or easily converted into cash with minimum risk and also the demand of money increase and decrease depends on the interest rate. When the interest rate decrease people demand more money to hold until the interest rate increase and vice versa. The theory explains that firms have a need to hold on to cash. The theory suggests that the three motives for keeping hold of cash are the transaction, precautionary and speculative motive (Gerber, 2013).

The study suggests the connection between liquidity and financial performance. It suggests the need for the construction industry to uphold a certain liquidity level to meet the three needs. The implication of this is that an organization is required to maintain a liquidity level to remain profitable.

The theory is relevant in this study because investors in construction industry putting all factors constant, prefer liquid investments to illiquid. This is because they prefer cash and because of that, they have a preference of investments not to be far from cash as possible.

The Liability Management Theory

This is one of the important liquidity management theories and says that there is no need to follow old liquidity norms like maintaining liquid assets, liquid investments. Lately, firms have focused on liabilities side of the statement of financial position. According to this theory, firms can satisfy liquidity needs by borrowing in the money and capital markets. The fundamental contribution of this theory was to consider both sides of a firm's statement of financial position as sources of liquidity (Emmanuel, 2007).

As cited on Guthua (2012), (Koch and McDonald, 2003) stated that today firms use both assets and liabilities to meet liquidity needs. Available sources of liquidity are identified and compared to expected needs by a firm's liability management committee (LCO). Key considerations include maintaining high asset quality and a strong capital base that both reduces liquidity needs and improves a firm's access to funds at low cost. There is a short-run trade-off between liquidity and profitability. In the long-run, if management is successful in managing liquidity, then, long-term earnings will exceed other firm's earnings, as will the capital and overall liquidity. Construction companies like every other organizations put more emphasis on the liability side of the statement of financial position (Chouddhry, 2011). According to this theory, construction companies can satisfy liquidity by managing the total statement of financial position dynamics and it involves quantifying risks and ensuring conscious decision making with regard to liability management.

Empirical Review

This section shows a brief summary of empirical review of various authors' related literature with title, Methodology, findings and recommendations in a table as follows:

Table 2.1: Summary of Empirical Review

Author	*Objective*	*Methodology*	*Findings*
Belete (2018)	Investigate the impact of assets and liability management and the performance of commercial banks.	Quantitative analysis using performance Indicators.	The result of the analysis shows that the financial performance of banks in Ethiopia to be positively affected by assets management and negatively affected by liability management.
Odhiambo (2018)	Examined the liability management practices in commercial banks in Kenya.	Correlation analysis	The results indicated that regular and systematic appraisal of liability management policies was a common practice among most banks.
Sheela and Bastray (2018)	Examined the effect of Liability management and profitability of commercial banks in Indian financial market.	Gap analysis techniques	The result showed that banks are more profitable with a good liability management strategy implying that there is a positive relationship between liability management and profitability
Muhammed (2018)	Studied the relationship between liquidity management approaches and their effect on profitability of commercial banks in Kenya.	Cross-sectional survey	The study found asset liability management was positively related to profitability.

Source: Researcher's Compilation (2023).

Table 2.1: Summary of Empirical Review

Author	*Objective*	*Methodology*	*Findings*
Anjichi (2018)	Investigated the relationship between asset and liability management and financial results of commercial banks in Kenya.	Data collection through descriptive survey	The result of the study revealed a good association between the financial output of commercial banks in Kenya and wealth management and liability management.
Salim (2018)	Analyzed the effect of the liability management on the profitability of banks in Bangladesh using data for time series from 2009-2017.	Simple regression analysis	The analysis showed that loans and progress have a clear positive correlation to the profitability of banks.
Obari (2018)	Investigated the effects on the profitability of commercial banks in Kenya of liability management.	Simple regression analysis	The analysis indicates a significant positive connection between bank size and financial output and a significant negative relation between the financial performance and the capital structure.
Gregory (2018)	Investigated the relationship between liability management and financial performance of sampled service firms in America.	Simple regression analysis	The study concluded that there was a positive relationship between liability management and financial performance of service firms in United states.

Author	*Objective*	*Methodology*	*Findings*
Ogbeifun and Akinola (2018)	Influence of liability management practices among commercial banks in Nigeria	Simple regression analysis	The result showed that assets are positively associated with profitability of banks and same applied to the liability management and bank performance.
Simatwa (2018)	Seeks to establish how liability management among commercial banks in Kenya affect their financial performance	Multiple Regression analysis	The result revealed that that the quality of assets held by commercial banks in Kenya are inversely related to the financial performance of banks as indicated by return on equity.
Anjichi (2019)	Investigated the consequences of Liability management on the Banks' financial performance over a ten year period spanning 2009 to 2018.	Data collection through descriptive survey	The findings reveal that all the CAMEL factors positively influenced financial performance of the commercial banks in Kenya.

Source: Researcher's Compilation (2024).

Table 2.3.1: Summary of Empirical Review continued

Author	*Objective*	*Methodology*	*Findings*
Njure (2019)	Examine the relationship between liability management and profitability of Non-financial companies listed in the Nairobi stock exchange.	Correlation techniques	Correlation results reveal a significant weak positive relationship between liquidity and profitability among the listed nonfinancial companies in Kenya.
Mihail (2019)	Determined the extent to which liability management affected the profitability of banks	Canonical correlation technique	It was discovered that liability management has a positive relationship with profitability.
Haslem (2019)	Examined the liability management and Financial performance of steel companies in the United states.	Canonical correlation technique	The outcome reveals that liability management has a significant effect on performance.
Njogo (2019)	Conducted a study to investigate the impact on the profitability of commercial banks in Nigeria from 2012 to 2018 of liability management.	Simple regression analysis	The results from the models concluded that there was a good positive association exists between liability management and profitability of banks.

Author	*Objective*	*Methodology*	*Findings*
Asiri (2020)	Determined the extent to which assets and liability management affected the profitability of banks	Simple linear regression analysis	It was discovered that that assets management positively and liabilities management negatively related to the financial performance of Kuwaiti banks.
Jayarathne (2020)	Examined the impact of liability management on profitability of listed companies in Sri Lanka between 2008 and 2019	Simple linear regression analysis	The result indicated that the profitability had an inverse relationship with the account receivable period, inventory turnover period, and cash conversion cycle. In contrast, it has a positive relationship with account payable period

Source: Researcher's Compilation (2024).

Table 2.1: Summary of Empirical Review continued

Author	*Objective*	*Methodology*	*Findings*
Ashok (2021)	Investigated the nexus between liability management and the performance of commercial banks	Ordinary Least Square regression technique	The result of the analysis shows that liability management positively affects the performance.
Gyekyi (2021)	Assessed the effects of liability management on profitability of National Investment Bank in the New Juabeng Municipality in Ghana.	Goal programming method analysis	The findings equally indicated that the value of assets and liabilities of the bank had a direct effect on the profitability of the bank, decrease in assets value leads to increase in banking profitability.
Taimur (2021)	Examined the impact of asset and liability management of eight Ethiopian banks from 2010–2020.	SCA model analysis	The result showed that asset and liability management and consumer deposit management were found to have a positive and meaningful profitable effect.

Source: Researcher's Compilation (2024).

Gap in the Empirical Literature

Based on the above empirical study, researchers have carried out research related to this study both in Nigeria and Abroad but it was not directed at determining the relationship between Liability Management and Performance of construction companies. Also, this research aims at investigating Liability Management and Performance of construction companies in Nigeria which to my best of knowledge, other researchers had not considered. Hence, this study is set to bridge the gap on Liability Management and Performance by authors whose works were reviewed empirically.

Methodology

Research Design

The study adopted *ex-post facto* research design. The *ex-post facto* research design is a research design where the impact of one variable on another is measured and the variables are not under the influence of the researcher.

Population of the Study

The population consists of twenty (20) quoted construction companies in Nigeria as at December, 2022 (Nigeria Exchange Group, 2022).

Sample size and Sampling Technique

The sample of the listed construction companies in Nigeria were selected using a judgmental sampling technique. Five (5) firms were drawn from the total of listed construction companies on the floor as at 2022 judgmentally. The listed manufacturing companies included in the sample size were those with up to date annual reports for the period chosen by the researcher, well presented financial statements in line with IFRS's requirements and up to date available data from 2012 to 2022. These were shown in Table 3.1:

Table 3.1: Sample/Selected Companies for the Study

S/N	*Name of Companies*
	Julius Berger Nigeria Plc
	Arbico Plc
	UDPC Plc
	Union Homes Plc
	Smart Product Plc

Source: Researcher's Compilation (2024)

Sources and Nature of Data

Based on the nature of the research, secondary data was used. The data addresses the perceptions and views on the impact of liability management on the performance of construction companies in Nigeria.

Method of Data Collection

The data are obtained from the quoted companies on the Nigerian Exchange Group. The data obtained are time series from 2012 to 2022.

Identification and Measurement of Variables

Performance being the dependent variable is measured with return on asset (ROA). Independent variables of the research are proxies for liability management measured with debt to asset ratio, debt to equity ratio and quick ratio.

Table 3.2: Variable Description and Measurement

Variable	*Type*	*Description*	*Apriori Expectations*
Return on Assets	Dependent Variable	Net Income / Total Assets	-
Debt to Asset Ratio	Independent Variable	Total Liabilities / Total Assets	Positive
Debt to Equity Ratio		Total Liabilities / Shareholders' Equity	Positive
Quick Ratio		Current Assets - Inventory / Current Liabilities	Positive

Source: Researcher's Compilation (2024)

Model Specification

The model specification used in this study is based on the description of the relationship between the predictor and the criterion variable of this research work.

Functional form:

$$ROA = f(DAR, DER, QR) \quad 3.1$$

Econometric form:

$$ROA = \alpha_0 + \beta_1 DAR + \beta_2 DER + \beta_3 QR + e_1 \quad 3.2$$

Where:

ROA = Return on Asset

DAR = Debt to Asset Ratio

DER = Debt to Equity Ratio

QR = Quick Ratio

β_1, β_2 and β_3 = coefficient of the parameter estimates

α_0 = constant term

e_1 = error term

Method of Data Analysis

The data were analyzed using the linear regression model with the aid of the Statistical Package for Social Sciences (SPSS). Linear regression is an approach for modeling the relationship between a scalar dependent variable (Y) and one or more independent variables (X). One benefit of using this is that it can indicate if an independent variable has a significant relationship with a dependent variable.

Decision Rule

The decision rule for this study states that the null hypothesis will be accepted if the p-value is greater than 0.05, otherwise reject null hypothesis if the p-value is less than 0.05.

Results and Findings

Regression Analysis

To see how the combination of your three (3) independent variables affect the dependent variable

Table 4.2: Regression Model Summary[b]

Model Summary[b]										
Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*	*Change Statistics*					*Durbin-Watson*
					R Square Change	*F Change*	*df1*	*df2*	*Sig. F Change*	
1	.549[a]	.301	.214	1065.301	.301	3.446	3	24	.003	1.645
a. Predictors: (Constant), DAR, DER, QR										
b. Dependent Variable: ROA										

Table 4.3: Regression Anova

ANOVA[a]						
Model		*Sum of Squares*	*Df*	*Mean Square*	*F*	*Sig.*
1	Regression	11733834.153	3	3911278.051	3.446	.003[b]
	Residual	27236774.329	24	1134865.597		
	Total	38970608.482	27			
a. Dependent Variable: ROA						
b. Predictors: (Constant), DAR, DER, QR						

Table 4.4: Regression Coefficients[a]

Model		*Unstandardized Coefficients*		*Standardized Coefficients*	*t*	*Sig.*	*Correlations*		
		B	*Std. Error*	*Beta*			*Zero-order*	*Partial*	*Part*
1	(Constant)	1854.528	310.661		5.970	.000			
	DAR	-.014	.052	-.059	-.261	.796	-.234	-.053	-.045
	DER	.072	.110	.141	.652	.521	-.101	.132	.111
	QR	-.159	.055	-.561	-2.893	.008	-.537	-.508	-.494
a. Dependent Variable: ROA									

Source: Researcher's Computation (2024)

The DAR, DER, QR and ROA coefficient R value is 54.9% which shows the variation in changes and it is significant. The R square value is the amount of variance in the outcome that is accounted for by the predictor variables used. Hence with R square value of 30.1%, ROA is predicted by DAR, DER and QR. That is the multiple linear regression analysis in the table above shows result indicating that 30.1% of the ROA is explained by the independent variables. Therefore, there is a significant relationship between the joint influence of DER, DAR, QR and ROA.

The coefficient of determination was strong and has the predicting power of the model. The p-value of DAR, DER and QR was statistically significant as it was less than the level of significance at 5%.

The F-statistics value 0.033 shows the model is significant at 5% and that there is a linear relationship between dependent variable and independent variables. The Durbin-Watson statistics with a value of 1.645 shows there is autocorrelation in the model.

Analysis of Empirical Results

The data in Table 4.1 were regressed and the result is interpreted in this section. The analysis and interpretation are aimed at the addressing the research questions and

hypotheses testing. This section is structured in two sub-sections. The hypotheses earlier formulated in line with the research questions were tested and interpreted in the first section. In order to achieve the objectives of this study and provide answers to the research questions, three null hypotheses were formulated as stated in chapter one of this study thus:

Test of Hypotheses

Ho_1: Debt to asset ratio has no significant relationship with Return on assets of construction companies in Nigeria.

Table 4.5: Model Summary[b]

Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*	*Durbin-Watson*
1	.666[a]	.534	.026	.47161	.355
a. Predictors: (Constant), DAR					
b. Dependent Variable: ROA					

Table 4.6: Coefficients[a]

Model		*Unstandardized Coefficients*		*Standardized Coefficients*	*T*	*Sig.*
		B	*Std. Error*	*Beta*		
1	(Constant)	1.097	1.954		.561	.590
	DAR	1.674	.605	.366	1.113	.003
Dependent Variable: ROA *Source:* Researcher's Computation (2024)						

From Table 4.6, the estimated model is:

$$ROA = 1.097 + 1.674DER$$

Adjusted R^2 = .534 which implies that the independent variables accounted for approximately 53.4% of the variations in the dependent variable. However, DAR was positively signed implying that DAR was positively related to ROA. Durbin Watson (DW) value 0.355 indicated that there was evidence of autocorrelation. Hence, the estimates were statistically significant. The coefficient of .666 implies that, for every 1% increase in ROA, DAR influence on ROA was 66.6%. At 5% level of significance, the p-value was .003 indicated that DAR was positively and significantly related to ROA.

The null hypothesis was accepted and concluded that Debt to assets had a positive and significant influence on return on assets of construction companies in Nigeria within the period under consideration.

Ho_2: Debt to equity ratio has no significant relationship with Return on assets of construction companies in Nigeria.

Table 4.7: Model Summary[b]

Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*	*Durbin-Watson*
1	.860[a]	.740	.708	.25841	1.093
a. Predictors: (Constant), DER					
b. Dependent Variable: ROA					

Table 4.8: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4.347	1.597		-2.721	.026
	DER	2.506	.525	.860	4.772	.001
a. Dependent Variable: ROA						

Source: Researcher's Computation (2024)
From Table 4.8, the estimated model is:
ROA = -4.347 + 2.506DER

Adjusted R^2 = .740 which implies that the independent variables accounted for approximately 74.0% of the variations in the dependent variable. However, DER was positively signed implying that DER was positively related to ROA. Durbin Watson (DW) value 1.095 indicated that there was evidence of autocorrelation. Hence, the estimates were statistically significant. The coefficient of .860 implies that, for every 1% increase in ROA, DER influence on ROA was 86.0%. At 5% level of significance, the p-value was .001 indicates that DER is positively and significantly related to ROA. The null hypothesis was not accepted and concluded that Debt to equity ratio had a positive and significant influence on return on assets of construction companies in Nigeria within the period under consideration.

Ho_3: Quick ratio has no significant relationship with Return on assets of construction companies in Nigeria.

Table 4.9: Model Summary[b]

Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*	*Durbin-Watson*
1	.790[a]	.624	.577	.31074	.872
a. Predictors: (Constant), QR					
b. Dependent Variable: ROA					

Table 4.10: Coefficients[a]

Model		*Unstandardized Coefficients*		*Standardized Coefficients*	*t*	*Sig.*
		B	*Std. Error*	*Beta*		
1	(Constant)	-3.382	1.827		-1.851	.101
	QR	2.187	.600	.790	3.644	.001
a. Dependent Variable: ROA						
Source: Researcher's Computation (2024) From Table 4.10, the estimated model is: ROA = -3.382 + 2.187QR						

Adjusted R^2 = .624 which implies that the independent variables accounted for approximately 62.4% of the variations in the dependent variable. However, QR was positively signed implying that QR was positively related to ROA. Durbin Watson (DW) value .875 indicated that there was evidence of autocorrelation. Hence, the estimates were statistically significant. The coefficient of .790 implies that, for every 1% increase in ROA, QR influence on ROA was 79.0%. At 5% level of significance, the p-value was .001 indicated that QR was positively and significantly related to ROA. The null hypothesis was not accepted and concluded that quick ratio had a positive and significant influence on return on assets of construction companies in Nigeria within the period under consideration.

Discussion of the Findings

The trend data was from 2012 to 2022, the t- statistics for debt to asset ratio is 1.674 with a standard error of 1.954. This implies that when DAR is increased by 1%, ROA will also increase by 1.674% and this is insignificant at 5% since the probability value is 0.003. Thus, it revealed that there was a positive and significant relationship between DAR and ROA. This agreed with the study carried by Muhammed (2014).

Debt to equity ratio within the period of eleven years from 2012 to 2022 is discovered to be 2.506 with a probability value of 0.001. This implies that for every 1% increase in

DER, there is a corresponding increase in ROA by 2.506%. Thus, the relationship between DER and ROA is positive and significant. In the light of this discovery, the null hypothesis cannot be accepted. This agrees with the outcome of Mayanga and Perks (2017).

Quick ratio within the period of eleven years from 2012 to 2022 is discovered to be 2.187 with a probability value of 0.001. This implies that for every 1% increase in QR, there is a corresponding increase in ROA by 2.187%. Thus, the relationship between QR and ROA is positive and significant. In the light of this discovery, the null hypothesis cannot be accepted. This agrees with the outcome of Kustiya (2012).

Summary and Conclusion

Summary of the Findings

This study was conducted to evaluate the effect of liability management on the performance of listed construction companies in Nigeria. The data for this study were obtained from the annual audited financial statements of listed construction companies on the Nigerian Exchange Group (NGX) which covers a period of eleven years using linear regression. From the results of the data analyzed in chapter four of this research, the findings were summarized thus:

- Debt to Asset ratio (DAR) has a positive and insignificant influence on return on assets of construction companies in Nigeria within the period under consideration.
- Debt to Equity ratio (DER) has a positive and insignificant influence on return on assets of construction companies in Nigeria within the period under consideration.
- Quick ratio (QR) has a positive and insignificant influence on return on assets of construction companies in Nigeria within the period under consideration.

Conclusion

The focus of this study was on liability management and performance of construction companies in Nigeria. It was revealed from the findings that liability management contributes positively to the performance of construction companies in Nigeria for the period of eleven years from 2012 to 2022. The dependent variable used in this study is return on assets (ROA) which is an acceptable measure for performance while the explanatory variables used for this study are debt to asset ratio (DAR), debt to equity ratio (DER) and quick ratio (QR).

The independent variables are positively signed. The independent variables such as debt to asset ratio (DAR), debt to equity ratio (DER) and quick ratio (QR). The independent variables are positive and significant at 5% level of significance. Thus, liability management contributes positively to the performance of construction companies in Nigeria within the period under review.

Recommendations

The following recommendations were made in line with the conclusion drawn from the findings:

1. Construction companies should endeavor to put in place proper liability management policies to help in maximizing their profit while simultaneously boosting the efficiency and effectiveness with which liabilities are utilized to generate sales.
2. Construction companies should make more investments in financial assets and keep more of cash and cash equivalents as they are capable of yielding higher coefficients in generating profit.
3. Construction companies should avoid high levels of debt as these have a negative impact on profitability.
4. Companies should also enhance the use of long term debt and other long term liabilities like debentures, mortgages and bonds to improve their financial performance.
5. Construction companies should maintain an optimal level of liquidity to be able to grasp opportunities that promise higher return in the future.

References

Ajibola, J.O. (2016). The Effects of Assets and Liabilities management on the financial performance of some selected Nigerian banks. *Journal of Accounting and Financial Management* ISSN 2504-8856, (2)2: 20 – 46. www.iiardpub.org

Anjichi, D. A. (2018). Effects of asset and liability management on the financial performance of commercial banks in Kenya (Doctoral dissertation, University of Nairobi), 57 – 63.

Anjichi, D.A. (2019). Effects of Assets and Liabilities management on the financial performance of commercial banks in Kenya. MSc Project report, Department of Accounting and Finance, University of Nairobi, 88 – 95.

Ashok, K.M. (2021). *An assessment of asset liability Management: An Empirical Investigation of scheduled Commercial Banks in India,* 22: 3563-3594

Asiri, B. K. (2020). Assets-liabilities management in banks: A Case of Kuwait, *Indian Journal of Economics and Business,* 5: 120–210.

Charumathi F. B. (2008). Asset Liability Management in Indian Banking Industry – with special 45 reference to Interest Rate Risk Management in ICICI Bank, World Congress on Engineering, July, London, UK, 101 – 132.

Corlosquet-herbert, E., Gehin Y., Janssen, O., and Manca, M. (2015). Bank liquidity and financial performance: Evidence from Moroccan banking industry. *Business: Theory and Practice*, *15*(4): 351 – 361. https://doi.org/10.3846/btp.2014.443

Deelstra, O., and Jansesen, W. (2002). Financial management decisions and firm performance among micro and small enterprises in Busia Town, Kenya. *International Journal of Management and Commerce Innovations,* 4(2): 303–310.

Fagbemi, S., & Olowokudejo, A. (2011). *Bank Performance and Supervision in Nigeria: Analysing the Transition to Deregulated Economy*. University of Lagos, 51 – 62.

Francis, M. E. (2007), Determinants of Banks' Profitability in Sub-Saharan Africa, *Journal of International Finance,* 88: 26–51.

Gilbert, U. (2016). Cash management and financial performance of business firms in Northern Uganda a Case of Lira District, 12 – 30.

Gup, B. E. and Brooks, R. (1993). Interest Rate Risk Management, *Irwin Professional* 46 *Publishing*, Burr Ridge,

Jayarathne, T. A. (2020). Impact of Working Capital Management on Profitability: Evidence from Listed Companies in Sri Lanka. Reshaping Management and Economic Thinking through Integrating Eco-Friendly and Ethical Practices. Faculty of Management and Finance, University of Ruhuna, Sri, 269–274.

Mihail, I. C. (2019). Effects of Asset liability management in Banks: An Empirical study of Banks in Europe Faculty of Finance, Cesta NaAmfiteature. 41 – 60.

Muhammed, Y. N. (2018). Effects of Liquidity Management approaches and their effects on profitability in Banks: An Empirical study of Commercial Banks in Kenya

Njogo, B.O. (2019). A panel data analysis of Assets and Liabilities management performance of Nigerian commercial Banks. *Research Journal of Finance* 2(11): 48-63

Njure, K. C. (2019). The Relationship between Liquidity and Profitability of Nonfinancial Companies Listed in Nairobi Securities Exchange (Vol. 12). The University of Nairobi, 33 – 52.

Obari, B. O. (2017). Liquidity and Performance of Nigerian Banks. *Journal of Accounting and Financial Management ISSN*, *3*(1): 2504–8856. Retrieved from www.iiardpub.org

Odhiambo, W.O. (2018). *Liability Management Practices: A survey of commercial banks in Kenya*. University of Nairobi, 61 – 81.

Ogbeifun, I. E., & Akinola, A. O. (2018). A Comparative Study of Asset and Liability Management Framework in the Banking Industry in Nigeria. *International Journal of Governance and Development*, *5*(1 & 2): 98-103.

Ogbeifun, I. E., & Akinola, A. O. (2019). Impact of qualitative monetary policy on the performance of deposit money banks in Nigeria. *International Journal of Development Research*, *9*(7): 28833-28840. 217

Ramlall, I. (2009). Bank-Specific, Industry-Specific, and Macroeconomic Determinants of Profitability in Taiwanese Banking System: Under Panel Data Estimation, *International Journal of Finance and Economics,* 4(1): 27-59.

Sayeed M. and Ziaulhoque M. (2010). Impact of Asset Liability Management on Profitability: A study on Public Vs Private Commercial Banks in Bangladesh, *Jahangitnagar University press*, Dhaka, Bangladesh, 77 – 102.

Yahaya, O. A., & Lamidi, S. O. (2015). Current assets management and financial performance: Evidence from listed deposit money banks in Nigeria. *International Journal of African and Asian Studies*, 13: 45-56.

Zawalinska K. (1999). Asset liability management: The institutional approach to ALM by commercial Banks in Poland, A special focus on risk management, CASE - *Center for Social Science Research, Warsaw*, 115 – 135.