

Analyzing the Impact of Liquidity and Financial Leverage on the Performance of Rural and Community Banks in Ghana

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Abstract - Rural and community banks have a significant impact on the financial system and economic growth in Ghana. These banks continue to play a vital role in the growth of the rural areas in the Ghanaian communities. While rural and community banks are crucial to the economic development in the country, performance of some of these banks over the past ten years has fallen short of expectations due to inability to meet their short and long term obligations. The study accessed the effect of leverage and liquidity on the performance of the rural and community banks in Ghana. A sample of 120 banks was selected for this study. ROE was employed as proxy for bank's performance and liquidity and financial leverage represented the independent variables. Pearson correlation and multiple regression were utilized to analyze the secondary data collected from the 120 banks by SPSS. The findings from the study indicate that: 1/ leverage had no statistical significant relationship with performance; 2/ liquidity had a statistical positive relationship with performance; and 3/ leverage and liquidity had statistical significant positive impact on bank's performance. The results contribute to academic literature and to improve the performance of the rural and community banking system in Ghana.

Keywords - Liquidity, Financial Leverage, Performance, Rural and Community Banks, Ghana

1 Introduction

Banks are for-profit organizations that primarily serve as intermediaries between lenders and borrowers. Banks take short-term resources from individuals or companies with surplus cash and distribute to people or organizations that are in need of cash instantly for either business or personal use. From this perspective, banks handle the finances of individuals or organizations and carry out a number of financial activities that promote development of the economy (Bessis, 2002). In every economy, rural and community banks play a crucial role in promoting savings among its individual, facilitating the flow of resources from rural areas into the financial system, promote development and identify businesses in the communities with potential opportunities for investment and expansion. These rural banks are seen to be helpful in lowering poverty in the rural communities by providing essential financial services to individuals such as farmers, petty traders, fisher men

etc. From its inception in 1976, the rural banking sector in Ghana has experienced substantial development both in terms of assets and its share of the country's economic growth. The ownership structure, management structure, and operational components of the entity exhibit distinct attributes. Rural banks are locally owned and operated as compared to the commercial banks. They benefit from advantageous geographic locations, which makes effective banking activities easy for the rural communities in Ghana. In order to develop ways to raise money for worthwhile projects and provide financial services to the rural communities, the Bank of Ghana initiated a discourse with stakeholders few years ago, which gave rise to the concept of rural banking (Bank of Ghana, 2006).

A lot of rural banks in Ghana are having trouble surviving in the competitive market as a result of financial difficulties such as paying their short and long term debts in order to create an ideal financial system which will reduce the bank's interest rate on debt and enhance its performance. The rural and community banks are rapidly decreasing due to a number of problems, including the loan default from the rural citizen, the money required to pay employees' remuneration and fulfilling additional financial commitments in the daily running of the bank. But the most practical forms of funding for the rural banks are cash and financial debt (Alhassan, 2019). One of the main concerns of every firm depends heavily on its liquidity and financial leverage to survive and grow. As a result, for the organization to run smoothly, its owners and financial managers must take a keen interest in the performance of the company. According to Shim (2022), liquidity is related to an organization's capacity for strategic planning, which is specifically focused around the efficient management of current assets and liabilities. Liquidity is how the firm is able to convert its assets into cash immediately without losing value. This enables the company to generate enough cash flow to cover its immediate liabilities and continue operating for some time.

However, the weak ratio numbers will suggest that the firm is having problems paying down its short-term obligations. Similarly, in order to finance a project and buy additional assets without using too much equity to run its operations, a corporation can use leverage, which is an external source of capital. Financial leverage also incorporates the company's profit, shareholders' equity, long-term and short-term liabilities as well as equity, which are the primary sources of funding the company's operations and expansion (Atrill, 2006). Since financial leverage is a significant factor in financial structure decisions, managers of firms must weigh the advantages and disadvantages before outsourcing activities that can boost the performance of the firm by enabling companies to expand and buy more assets. Additionally, the usage of financial leverage may have an adverse effect on performance due to loan default or largely increasing company earnings depending on business activities. The rural and community banks in Ghana therefore have

to tactically manage its financial resources in order to make higher profits to prevent financial distress such as illiquidity and insolvency.

When a company is insolvent, it means that it cannot pay its long-term debts; conversely, the term "illiquid" describes a company's inability to settle its short-term debt or current expenses (Shim, 2022). Furthermore, in order to enhance development and growth of the rural towns, the rural banks, need to focus more on managing liquidity and debt efficiently. This study aims to empirically examine and evaluate how financial leverage and liquidity affects the performance of the rural and community banks in Ghana. Several researchers have also attempted to explain how leverage and liquidity affects company's performance, but their conclusions range greatly, necessitating more research. The literature revealed that, many of the studies on liquidity and financial leverage focused on the commercial banks or the small and medium scale enterprises but little research has been conducted on the rural and community banks in Ghana. Therefore this research outlines the following objectives:

1. To determine the impact of liquidity on the performance of the rural and community banks in Ghana
2. To examine the impact of financial leverage on the performance of the rural and community banks in Ghana.
3. To provide recommendations to the banks in enhancing their performance.

Therefore, this study's primary aim is to determine how liquidity and leverage affect the performance of the rural and communities banks in Ghana. Additionally, the findings of this study will assist managers to make informed decisions by highlighting the impact of both liquidity and leverage on the success of the rural banks. This could help the rural and community banks to fulfill their financial commitments in the short term and longer term period which will enhance their performance. The effect of liquidity and leverage on the performance of the rural banks in Ghana have not received much attention so this research is aimed to fill a gap and contribute to academic knowledge and highlight the essential contribution of the rural and communities' banks in Ghana.

2 Literature Review

One of the most important avenues for supplying capital to local enterprises is through the rural banks. Additionally, they can promote sustainable entrepreneurship and educate individuals. Rural and community banks facilitate the nation's economic growth in the rural areas by providing financial activities to these areas. According Bank of Ghana (2023) many financial organizations were located in the cities before Ghana gained independence. Due to the comparatively low turnover in the rural areas, the commercial banks hesitated to conduct banking business with the rural residents who

were typically involved in farming, small-scale trading, artisanship and other related activities.

Additionally, the few commercial banks in the rural areas had monthly loan repayment schedules that were inappropriate for the non-monthly income earners who lived in these areas. Individuals found it challenging to obtain loan facilities from the commercial banks due to these circumstances and so, there was the need for the Bank of Ghana to establish rural and community banks to provide financial activities to the citizens of those areas. The Bank of Ghana (2016) asserts that the functions of rural banks are as follows: they mobilize savings in rural areas and direct them toward lending to small and medium-sized agricultural businesses, and other industries; the rural banks generate revenue in the areas by introducing formal banking culture to rural residents; and they act as agents for the expansion and development of SME's in the areas to promote rapid rural industrialization for the growth of the country's economy as a whole.

2.1 Empirical Review

The effect of liquidity on firm performance

Al Nimer, Warrad & Al Omari (2015) investigate the effect of liquidity on profitability from 2005 - 2011 to provide analytical findings of 15 Jordanian banks listed on the Amman Stock Exchange. According to the study, Jordanian banks' performance (ROA) had been positively and significantly impacted by the quick ratio, which is a measure of liquidity.

The effect of leverage and liquidity on the performance of corporations was studied by (Goel, Chadha & Sharma, 2015). The 10-year panel data from CMIE was used in the study, which involved 151 manufacturing companies in India. The findings were analyzed using regression analysis and prowess analysis. The study discovered that operating liquidity and leverage had a positive effect on Indian firms' performance. Highly geared companies, according to the authors, typically maintain enough liquid assets and depend on debt to finance the operations of the firms.

Yeo (2016) conducted research on factors affecting the leverage and liquidity of 130 shipping firms from 2009 to 2013. The factors that affected the firms were analyzed by the researcher using multiple regression analysis, FGLS, GLM, and panel data from the Factiva database. According to the study, there was a negative correlation between asset liquidity and the high amount of leverage exhibited by shipping companies. Furthermore, the results showed how highly leveraged of the shipping companies had an impact on their performance.

Hongli, Ajorsu, and Bakpa (2019) investigate the effect of financial leverage and liquidity on the profitability of listed manufacturing firms between 2007 and 2015 in six different industries on the Ghana Stock Exchange. Using both fixed effect and random effect models, ROA and ROE were em-

ployed as metrics for firm's profitability. As a performance metric, return on equity was significantly positively impacted by liquidity and leverage.

This study examined how bank's liquidity management affected Nigeria's financial sector growth between 1990 and 2021. Secondary data was used for the data analysis and the ex-post facto research methodology was applied for the data gathering, analysis and interpretation. For the estimation, Autoregressive Distributed Lagged (ARDL) was employed. The findings showed that, at 5% significant level, the commercial banks' liquidity ratio had a positive effect on the Nigeria's financial development. Concurrently, at 5% substantial level, the loan-to-deposit ratio of banks had a positive effect on Nigeria's financial development. However, the interest rate in Nigeria had significant and negative influence on the financial development of Nigeria financial development by 5% (Khadijat, 2024)

Arthur-Sam, Seddighi & Osseo-Asare Jr, (2024) investigated on how financial characteristics affects the performance of firm listed in Ghana. The study employed a quantitative method encompassing correlation and casual design. Financial characteristics such as leverage, liquidity and business activity were used, while firm performance was calculated by return on asset. The results from the research indicate that leverage and business activity had statistical significant positive correlation with performance. However, liquidity had no statistical significant correlation with performance. Furthermore, leverage, liquidity and business activity had significant positive effect on company's performance.

H1: Liquidity has a positive relationship with the performance of the banks in Ghana.

The effect of liquidity on firm performance

Chadha and Sharma (2015) investigated the effects of leverage on the financial performance of 422 listed Indian manufacturing firms over a ten-year period. The three proxies used by the study to calculate performance were Tobin's Q, ROE and ROA. The research discovered that leverage had significant relationship with ROE, but had no significant effect on ROA or Tobin's Q. Other variables that are well-predicted included company's age and size, growth in sales and turnover of assets.

The effect of leverage on companies performance on the Nigeria Stock Exchange from 2000 to 2009 was studied by Jeleel and Olayiwola (2017), the research employed a random sampling method to ascertain the sample size of three organizations. Ordinary least square was used in the study as a strategy to estimate the secondary data of the chosen businesses. The capital structure was represented by the equity and debt ratio, and ROA was used to evaluate the firms' performance. The study's conclusions demonstrated that there was a 5% significant level of positive relationship between

capital structure and ROA. Nonetheless, there was a 10% significant level of negative correlation between asset tangibility and return on asset.

Ibhagui and Olokoyo (2018) conducted an investigation of the correlation between leverage, firm size, and profitability of 101 pharmaceutical companies that were listed in Nigeria, spanning from 2003 to 2007. According to the findings, leverage had a negative effect on firm performance that is most prominent and significant for small-sized businesses. The study also discovered that the outcome remains valid regardless of the debt ratios applied and was consistent to previous research by demonstrating that leverage had a positive effect on the performance of the listed companies in Nigeria. This current research, however, showed that the extent of the positive relationship varies with firm size and is often greater for smaller businesses.

The study estimated the effect of firms' leverage on financial performance using the GMM and the random effect between 2000 and 2021. 257 businesses on the Tokyo stock market in automotive, construction, electrical, metal, and telecommunications industries were chosen for the study. According to the study, interest coverage is positively statistically significant to ROA, ROE, and Tobin's Q. The study also found that ROE is positive and statistical impacted by cash coverage. The findings from the research indicated that financial performance was negatively and significantly impacted by debt servicing obligations (Arhinful and Radmehr, 2023)

This study examined how leverage affects the performance of listed consumer goods companies in Nigeria. Secondary data from publicly available financial statements was used for the data analysis and a sample of 11 companies were examined over an eight-year period (2015– 2022). Descriptive statistics, correlation, Hausman Test and panel regression analysis were utilized for the research study. The results indicated that the performance of the consumer goods firms in Nigeria was positively impacted by the long-term debt ratio. The financial performance of the consumer firms in Nigeria was also found to be positively and slightly impacted by the short-term debt ratio and interest coverage ratio (Aderemi, 2024).

H2: Financial leverage has a positive relationship with the performance of the banks in Ghana.

In summary, the literature review on banks provides essential service to the development and success of every country. It is discovered that few studies had been conducted on these banks but however, many research had been conducted on the commercial banks and the SME's in Ghana. There had not been an empirical review on the relationship and the impact of liquidity and financial leverage on the performance of the rural and community banks in Ghana so this study fills a gap and contributes to academic literature.

3 Research Methodology

3.1 Sample and Data Collection

According to Bank of Ghana Annual Report (2023), there are 147 rural and community banks in Ghana. The study selected 120 banks as the sample for this research work. The aim of this research is to examine the impact of liquidity and leverage on the performance of rural and community banks in Ghana. This research employed Pearson correlation to ascertain the relationship between leverage, liquidity and the performance of the rural and community banks. Multiple regression was utilized to examine the effect of these variables on the performance of the banks. The data collected from the fieldwork were analyzed using statistical package for social science (SPSS) data analysis tool. The field work data was gathered from the annual financial statements and reports of the individual banks.

3.2 Dependent Variables

The explanatory variable that is utilized as an indicator for measuring rural and community performance is ROE. Return on equity was employed to effectively examine a firm's potential to generate returns on shareholders' equity (Shim, 2022). According to Ang and Bekaert (2006), a greater ROE ratio determines the growth of the company and the returns on the investment made by shareholders. Moreover, ROE is a crucial performance metric that indicates a company's capacity to create sufficient returns to offset the risk it takes.

3.3 Independent Variables

Financial leverage

Shim (2022) defines financial leverage as the proportion of a company's entire debt to its total assets, which includes long-term obligations that mature more than a year. Therefore, highly geared firms use more debt than any other forms of funds for their business activities and investments. Similarly, businesses with relatively small amount of leverage indicate that accumulated earnings or equity finance are their primary sources of finance.

Liquidity

According to Atrill (2006) liquidity is the capacity of the organization to pay its short-term debts and maintain consistent revenue, thus, the proportion of current assets to current liabilities.

Table 3.1: Variable definitions and Descriptions

Return on equity (ROE)	Profit after tax / Shareholders' equity
Liquidity (Current Ratio)	Current asset / Current liabilities
Financial Leverage (debt to equity)	Total debt / Total equity

4 Result and Discussions

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std Deviation
ROE	120	-.0756910	.1205070	.026750888	.0247737281
Liquidity	120	-1.0954220	1.0197230	.203716968	.2472271269
Financial Leverage	120	.0089190	.3593060	.137309803	.0601847461

Source: Fieldwork (2024)

Table 4.1 gives a descriptive statistics of all the 120 rural and community banks in Ghana and it shows all variables considered for the study. That is liquidity which is calculated as the proportion of current asset to current liabilities demonstrated a percentage mean of 20.37 and standard deviation of 0.2472. This indicates the cash flow to pay for short term debt. Leverage which is measured by total debt to total equity shows a percentage mean of 13.73 and standard deviation of 0.602 indicating that the rural and community bank's assets are funded by 13.73% of debt. The positive values imply that the variable under the model are significant in determining the performance of the rural and community banks in Ghana.

Table 4.2: Correlation Matrix

	Liquidity	Leverage	ROE
Liquidity	1		
Leverage	-.046	1	
Return on Equity	.891**	.133	1

Fieldworks (2024) ** . Correlation is significant at the 0.01 level (2-tailed)

Findings from Table 4.2 explained that, leverage and ROE had no statistical significant correlation ($\beta = .133$). This result is consistent with the findings of Abubakar (2015) who discovered that, financial leverage did not have a significant relationship with the performance of the firms. The finding is also contrary to the outcome of Kwaltommai, Enemali, Duna & Ahmed (2019), who revealed that there was a positive correlation between leverage and corporate performance. This means financial leverage has no influence on the performance of the banks when measured by ROE.

In addition, liquidity had a significant positive correlation with the ROE of the rural and community banks ($\beta = .891^{**}$). This finding is consistent to Oda-lo & Achoki (2016) who found a positive relationship between liquidity and

financial performance of the agricultural listed firms in Kenya. This result implies that when chosen carefully, liquidity have positive influenced on the performance (ROE) of the rural and community banks. However, the result is contrary to Alarussi and Alhaderi (2018) who found that liquidity had no significant correlation with ROE. In a similar manner, the findings is also not consistent to Arthur-Sam, Seddighi & Osseo-Asare Jr, (2024), who found out that liquidity had no significant correlation with the performance of the listed firms in Ghana.

Diagnostic Testing

The P-P plot's normality and multicollinearity were the underlying assumptions used in this research. The P-P plot and histogram normality test of the study are presented Figures 4.1 and 4.2.

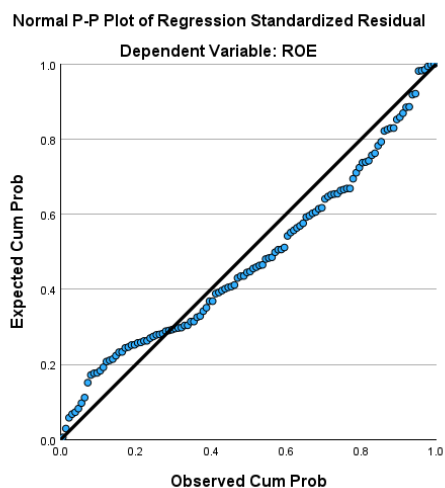


Figure 4.1: P-P plot of normality

As can be seen in Figure 4.1, it was discovered that most of the scores are along the diagonal line in the center. When most of the scores are closely aligned with the diagonal line, an observation is deemed normal (Pallant, 2020). Additionally, the histogram in Figure 4.2 shows that the distribution of the scores was normal.

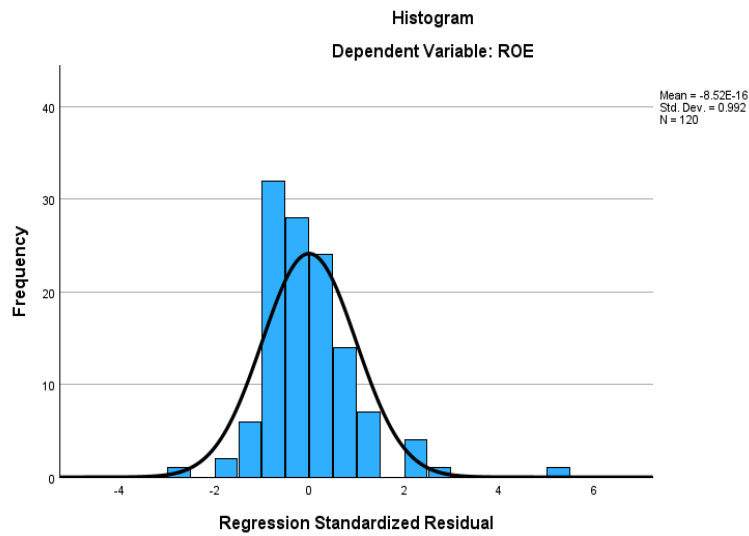


Figure 4.2: Histogram graph of normality test

According to Pallant (2020) tolerance and Variance Inflation Factor (VIF) is used to test the multicollinearity of an analysis to support the P-P plot and histogram normality assumption. Table 4.3 presents the multicollinearity results.

Table 4.3: Multicollinearity Test

Variable	Correlations	Multicollinearity	
	Return on Equity	Tolerance	VIF
Leverage	.133	.998	1.002
Liquidity	.891	.998	1.002

Source: Fieldwork (2024)

The results shown in Table 4.3 demonstrate that the tolerance values were not less than .10, which is an ideal result (Pallant, 2020). The VIF statistics also met the acceptable standards, which states that VIF values must be lower than 10. It is obviously that no multicollinearity problem exists because both the tolerance and variance inflation factor results satisfied the necessary cut-off values.

Table 4.4: ANOVA Results

Model	Sum of Squares	Df	Mean Square	R Square Change	F	Sig.
Regression	.060	2	.030		274.940	.001
Residual	.013	117	.000	.825		
Total	.073	119				

Source: Fieldwork (2024)

Table 4.4 demonstrates that 82.5%, or .825, of the independent factors account for the variance in the dependent variable (return on equity) at $F(2, 117) = 274.940$, $p < 0.05$. These findings imply that the banks' ROE is significantly impacted by leverage and liquidity. To determine the unique impact of the predictor variables, linear multiple regression analysis was performed.

Table 4.5: Linear multiple regression analysis on the rural and community banks

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-.001	.003		-.587	.558
Leverage	.072	.016	.175	4.515	.001
Liquidity	.090	.004	.899	23.195	.001

Source: Fieldwork (2024)

*significant level at $p < .05$

Leverage and liquidity have a statistical significant impact on ROE at .05 level of significance, according to Table 4.5's results. This can be explained by the independent variables having significant values below .05. The dependent variable (return on equity) was shown to be significantly impacted by the independent variables (leverage and liquidity) at (beta = .175 and beta = .899, respectively) for the standardized beta values. Leverage specifically has a positive significant impact on ROE ($\beta = .072$, $p = .001 < .05$). According to this finding, a firm's ROE will increase by .072 for every unit increase in leverage. This result is consistent with that of Nguyen & Nguyen (2020), who discovered a positive impact of financial leverage on performance. Furthermore, this outcome corresponds with the findings of Dioha et al. (2018), who discovered that leverage significantly affects the listed firms' profitability.

Moreover, liquidity positively and significantly affects the ROE of the banks ($\beta = .090$, $p = .001 < .05$). This indicates that a unit increase in a firm's liquidity will result in .090 increases in ROE. The recent study supports the

findings of Ismail (2016), who concluded that liquidity has a positive effect on firm performance. This outcome differs from that of Dioha et al. (2018), who found that liquidity had no significant effect on the profitability of consumer products organizations. The finding confirms to the study by Hongli et al., 2019 who indicated that the listed firms' return on equity (ROE) was significantly positively impacted by liquidity. The results of the study also indicated a positive impact of financial leverage on firm performance.

5 Discussions of Findings

This study examined the relationship between liquidity and financial leverage on the performance of the rural and community banks in Ghana. The findings from the correlation coefficient of this research demonstrated that, there was no statistical relationship between leverage and the performance of the banks. This finding is consistent to Abubakar (2015) who concluded that, financial leverage had no significant relationship with the performance of the deposit money banks in Nigeria. This result is also in line with the outcome of Iqbal and Usman (2018) who found that financial leverage had no significant relationship with the performance of the Textile Composite firms. However, this result is contrary to Ansari (2020) who revealed that leverage had a statistical positive relationship with the performance of the IT companies.

In a similar way this study found out that, there was a statistical positive relationship between liquidity and the performance of the rural and community banks. The finding is consistent to Yameen and Tabash's (2019), as they suggested that the liquidity had a positive relationship with the performance of the pharmaceutical companies. The finding of the study is also in line with the outcome of Lukorito, Muturi, Nyang'au & Nyamasege (2014) who found a positive correlation between liquidity and bank's profitability. The finding is contrary to Saleem and Rehman (2011) who revealed that liquidity was statistically insignificant to the performance of the oil and gas firms in Pakistan.

Similarly, leverage and liquidity had a statistical positive impact on the performance of the banks. This result implies that when chosen carefully, an increase in leverage and liquidity will have a positive impact on the rural and community banks in Ghana. The finding is in line with Nguyen and Nguyen (2020) who found that liquidity had a positive impact on the performance of the listed firms in Vietnam. The finding is also consistent to Alhassan (2019) who indicated that, there was a positive impact of liquidity on the performance of the rural banks considered in the study.

In a similar way, Nguyen and Nguyen (2020) discovered that financial leverage had a positive effect on the performance of the listed firm in Vietnam, which is consistent to the findings of this study. In addition, the results of the study also aligns with the conclusions of Dioha, Mohammed & Okpanachi (2018), who discovered that financial leverage had a positive impact on the performance of the listed companies on the PSX (100-index). Arthur-Sam,

Seddighi & Osseo-Asare Jr, (2024) also found a positive impact of financial leverage on the performance of the listed companies in Ghana.

6 Conclusion and Recommendations

The study on the liquidity and financial leverage in the rural and community banks examines the prevalent issues that these banks face in terms of their survival and overall performance. This study examined the effect of financial leverage and liquidity on the performance of the rural and community banks in Ghana. According to the study's statistical findings, ROE, which is employed as the metrics of bank's performance, is positively and significantly impacted by liquidity. This finding indicates that financial managers in the rural and community banks are meeting their short-term obligations, which can improve the performance of the banks. An additional study found that the leverage ratio had positive significant effect on bank's performance. Shareholders of the banks ought to effectively minimize the risk associated with both short-term or long-term debt in order to efficiently employ debt financing to encourage growth and performance of these rural and community banks.

In light of the empirical findings, the researcher proposes that management ought to mitigate the negative effects of financial leverage and liquidity on the performance of the rural and community banks in Ghana. Since current assets and current liabilities of the company could impact how short-term obligations are fulfilled. Managers should take a cautious approach to handle their liquidity concerns very effectively. Additionally, they must try to discover a better approach to handle unforeseen customers' requests to prevent loan default and other on-going expenses by managing their liquid assets effectively. These debts ought to be paid from the retained earnings and dividends paid to shareholders. Moreover, financial managers should implement an ideal capital structure to regulate the amount of debt financing in order to maximize shareholder ownership rather than increase the risk associated with excessive debt, which can have a negative effect on the performance of the rural and community banks.

This research suggested that in order to improve economic growth in Ghana, the government should support the rural and community banks by providing them with funds and by passing legislation to safeguard these rural and community banks. The study's implication is to throw more light on how the banks can maximize profit by managing short-term and long term debts which will enhance their financial performance. It is critical that the rural and community banks concentrate on strengthening its liquidity and financial leverage management in order to improve its financial position. Additionally, it is advised that the government must endeavour to implement plans and policies to assist these banks in lowering the excessive debt financing required to sustain the activities in rural communities which will promote growth and development in the country.

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8 References

Abubakar, A. (2015). Relationship between financial leverage and financial performance of deposit money banks in Nigeria. *International Journal of Economics, Commerce and Management*, 3(10), 759-778.

Aderemi, O. A. (2024). Leverage and Financial Performance of Quoted Consumer Goods in Nigeria. *Nigerian Journal of Management Sciences* Vol, 25, 1b.

Al Nimer, M., Warrad, L., & Al Omari, R. (2015). The impact of liquidity on Jordanian banks profitability through return on assets. *European Journal of Business and Management*, 7(7), 229-232.

Alarussi, A. S., & Alhaderi, S. M. (2018). Factors affecting profitability in Malaysia. *Journal of Economic Studies*, 45(3), 442-458.

Alhassan, O. (2019). Impact of liquidity on Rural and Community Banks profitability in the Eastern Region of Ghana (Doctoral dissertation, University of Cape Coast).

Ang, A., & Bekaert, G. (2006). Stock return predictability: Is it there? *The Review of Financial Studies*, 20(3),

Ansari, F. U. (2020). The impact of profitability, leverage, efficiency and liquidity on return on equity: The case of Indian IT companies. *IUP Journal of Accounting Research & Audit Practices*, 19(2), 23-34.

Arhinful, R. and Radmehr, M., 2023. The impact of financial leverage on the financial performance of the firms listed on the Tokyo stock exchange. *SAGE Open*, 13(4), p.21582440231204099.

Arthur-Sam, J., Seddighi, H. R., & Osseo-Asare Jr, A. (2024). Assessing the Impact of Financial Characteristics on the Performance of Ghana Club 100 Companies. *Technium Business and Management*, 8, 96-106.

Atrill, P. (2006). *Financial management for decision makers*. pearson Education.

Bank of Ghana. (2016). *Bank and Specialized Deposit-Taking Act 930 Institutions Act*

Bank of Ghana. (2023). The role of rural bank in Ghana. Bank of Ghana web site, available at: www.bog.gov.gh (accessed 01/08/2024)

Bessis, J. (2011). *Risk management in banking*. John Wiley & Sons.

Chadha, S., & Sharma, A. K. (2015). Capital structure and firm performance: Empirical evidence from India.

Dioha, C., Mohammed, N. A., & Okpanachi, J. (2018). Effect of firm characteristics on profitability of listed consumer goods companies in Nigeria.

Goel, U., Chadha, S., & Sharma, A. K. (2015). Operating liquidity and financial leverage: Evidences from Indian machinery industry. *Procedia-Social and Behavioral Sciences*, 189, 344-350.

Hongli, J., Ajorsu, E. S., & Bakpa, E. K. (2019). The effect of liquidity and financial leverage on firm performance: Evidence from listed manufacturing firms on the Ghana stock exchange. *Research Journal of Finance and Accounting*, 10(8), 91-100.

Ibhagui, O. W., & Olokoyo, F. O. (2018). Leverage and firm performance: New evidence on the role of firm size.

Iqbal, U., & Usman, M. (2018). Impact of financial leverage on firm performance: Textile composite Companies of Pakistan. *SEISENSE Journal of Management*, 1(2), 70-78

Ismail, R. (2016). Impact of liquidity management on profitability of Pakistani firms: A case of KSE-100 Index. *International Journal of Innovation and Applied Studies*, 14(2), 304.

Jeleel, A., & Olayiwola, B. (2017). Effect of leverage on firm performance in Nigeria: A case of listed chemicals and paints firms in Nigeria. *Global Journal of Management and Business Research*, 17(2), 15-24.

Khadijat, S. (2024). Effect of Bank Liquidity management on financial sector development in Nigeria. *Afit Journal of Marketing Research*, 3(1).

Kwaltommai, A. S., Enemali, M. I., Duna, J. U. D. E., & Ahmed, A. (2019). Firm characteristics and financial performance of consumer goods firms in Nigeria. *Scholars Bulletin*, 5(12), 743-752.

Lukorito, S. N., Muturi, W., Nyang'au, A. S., & Nyamasege, D. (2014). Assessing the effect of liquidity on profitability of commercial banks in Kenya. *Research Journal of Finance and Accounting*, 5(19), 145-152.

Nguyen, T. N. L., & Nguyen, V. C. (2020). The determinants of profitability in listed enterprises: A study from Vietnamese stock exchange. *Journal of Asian Finance, Economics and Business*, 7(1), 47-58.

Odalo, S. K., & Achoki, G. (2016). Liquidity and financial performance in agricultural firms listed in the Nairobi Securities Exchange in Kenya. *International Journal of Business and Social Science*, 7(7), 57-65.

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.

Raza, M. W. (2013). Affect of financial leverage on firm performance. Empirical evidence from Karachi Stock. *The North American Journal of Economics and Finance. Vision*, 19(4), 295-302.

Saleem, Q., & Rehman, R. U. (2011). Impacts of liquidity ratios on profitability. *Interdisciplinary journal of research in business*, 1(7), 95-98.

Shim, J.K. (2022). *Financial management*. Professor of Finance and Accounting Queens College City University of New York.

Yameen, M., Farhan, N. H., & Tabash, M. I. (2019). The impact of liquidity on firms' performance: Empirical investigation from Indian pharmaceutical companies. *Academic journal of interdisciplinary studies*, 8(3), 212-220.

Yeo, H. (2016). Solvency and Liquidity in Shipping Companies. *The Asian Journal of Shipping and Logistics*.