



Optimum Synergy between Liquidity and Profitability Management of Quoted Banks: The Nigerian Perspective

M. O. Yusuf¹, Christopher I. Nwufo², Emmanuel Ib Chima³

¹Department of Business Administration, University of Abuja, Nigeria.

^{2,3}Department of Accounting, University of Abuja, Nigeria, ³E-mail: bestnuel2007@yahoo.com (Corresponding author)

Abstract

This study empirically investigates the optimum synergy between liquidity and profitability management of quoted banks in Nigeria. Data were collected from secondary sources. The population of the study consists of all quoted Banks in Nigeria as at 31st December 2013. However, the sample size was determined using purposive sampling techniques. Profitability and liquidity variables were used and a multiple regression model, correlation analysis and F-tests were employed in testing the hypothesis at 5% level of significance. The result showed that there is a significant optimum synergy between liquidity and profitability management of banks in Nigeria. Also optimum liquidity and profitability management is achieved when a balance is struck between the two performance indicators in such a way that the pursuit of one of them does not lead to a detrimental effect on the other. The study recommends that banks should maintain optimum liquidity and profitability equilibrium. Moreover, appropriate and stiff sanctions should be taken against banks that mismanage their working capital. This study recommends that banks should be mindful of liquidity risks while pursuing their profit maximization objective.

Key words

Liquidity, profitability, optimum synergy, working capital

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1. Introduction

The banking sector being one of the most important financial institutions in Nigeria, have a vital role to play when it comes to investment and creating wealth for the society. As such, Tabari *et al.*, (2013) opined that the safety of the financial institution depends on two parameters – liquidity and the profitability management. Prior researches have shown these two parameters are the causal factors behind the position of any unsound company.

Profitability shows management approach and the competitiveness position of banks in a market-based economy. Earning of enough profit is a necessity for the sustenance, growth and expansion of a business entity. Businesses will extinct where there is no profit as it will fail the moment it fails to make profit. Profit is very important not only to management but also to investor who requires a return on their investment as well as creditors who want repayments of principal sum and interest accruing therein. However, as managers strive or aim at maximizing the profit, they should be very cautious in their quest so as to avoid the organization running into liquidity problem.

Liquidity is very essential for the survival of a business as they are expected to be able to meet up with its financial obligations as and when due. The failure of a company to meet its obligations due to lack of sufficient liquidity will result in poor creditworthiness, loss of creditors confidence or even in legal

tangles resulting in the closure of the company. As emphasized in Central Bank of Nigeria (2012) the liquidity need of the banking system are usually dependent on the sum of reserve requirements imposed on banks by the monetary authorities. According to Tabari *et al.* (2013) banks liquidity simply means the ability of the bank to maintain sufficient fund to pay for its maturing obligations. These include the ability to meet payment of cash, cheque, other withdrawals obligations and loan demands while abiding by existing reserve requirements. Globally, the adequacy of liquidity plays a vital role in the lives of business firms and its vitality in the banking sector can be seen in its expression in the bank's financial reports. Hence, for the survival of any business entity, financial managers must plan for optimum liquidity when maximizing the profit of a business entity and a balance or trade-off needs to be struck between profitability and liquidity.

Priya and Nimalathan (2013) assert that liquidity and profitability which are major components of working capital are the two corners of a straight line. If you are on the line and move towards one, you automatically move away from the other. In other words, there is a trade-off between liquidity and profitability. According to Priya and Nimalathan (2013), the management of liquidity and profitability has become a crucial issue in today's cut-throat competition. In Nigeria, the challenges of inefficient liquidity management in banks were exposed during the liquidation and banks distress period. Bhunia (2010) highlighted that liquidity plays a significant role in the successful functioning of a business firm and firms should ensure that it does not suffer from lack of or excess liquidity to meet its short term compulsions.

Illiquidity and lack of profit may cause the cessation and liquidation of business firms. Pandey (2007) affirms that lack of liquidity (illiquidity) in extreme situations can lead to firm's insolvency. Padachi (2006) affirms that a firm is required to maintain an optimum balance between liquidity and profitability while conducting its daily operations. Also Ogundipe *et al.* (2012) maintain that both inadequate liquidity and surplus liquidity directly affects profitability. Moreover Egbide *et al.* (2013) summarize that liquidity and its management determines to a great extent the growth and profitability of a firm. This is because either inadequate or excess liquidity may be injurious to the smooth operations of the organization. Dash and Hanuman (2008) asserts that there is a trade-off between liquidity and profitability as such a pursuit of one will mean a trade-off of the other.

Owolabi *et al.* (2011) reveals that the relationship between liquidity and profitability has remained a source of disagreement among experts, researchers, professional financial analysts and even management of profit-oriented entities. Kumbirai and Webb (2010) posits that financial stability issues lie at the profitability and liquidity nexus; therefore, a decline in liquidity is associated with an increase in profitability, since low liquidity means larger percentage of assets and total deposits are tied with loans. Under normal circumstances, rapid loan growth tends to result in higher returns and higher risks.

Liquidation of a bank may be caused by illiquidity and lack of profit. Krama and Tekeste (2012) posit that the impact of liquidity on bank profitability is also inconclusive in the banking literature. In view of the gap and conflict in liquidity and profitability management, this study examines and evaluates how liquidity and profitability management can be optimized.

1.1. Objectives of the Study

The main objective of this study is to examine the optimum synergy between liquidity and profitability management of selected quoted banks in Nigeria. Other specific objectives are:

- a. To determine the relationship between liquidity and profitability management.
- b. To ascertain the effect of Loan to Deposits ratio on Return on Assets.
- c. To deduce if there is any significant effect of Loan to Total Assets ratio on Return on Equity.

1.2. Research Questions

The following research questions are pertinent to the analysis of this study:

- a. What relationship exists between liquidity and profitability?
- b. To what extent does Loan to Deposits ratio affect Return on Assets?
- c. What is the effect of Loan to Total Assets ratio on Return on Equity?

For prompt, concise and clear analysis of this study, the following hypotheses are formulated:

H₀1. There is no significant relationship between liquidity and profitability of banks.

H₀2. There is no significant relationship between Loan to Deposits ratio and Return on Assets.

H₀₃. There is no significant relationship between Loan to Total Assets ratio and Return on Equity.

This study will help the central bank of Nigeria, National deposit Insurance Corporation, Assets Management of Nigeria and the government in formulating policies and regulating the banking industry. Also employers and employees of banks will enhance and strategize for optimum liquidity and profitability management. This study will also be significant to researchers and academicians as its relevance to future research study cannot be underestimated.

2. Literature review

Prior studies show contradicting views on the interpolation of liquidity and profitability of banks. Molyneux and Thornton (1992) found in their studies that liquidity has a positive effect on banks profitability. Kosmidou (2006) believe that liquidity has a negative effect on profitability. Bhunia *et al.*, (2012) found out in their study that liquidity – profitability relationship is linked with the continuance of the appropriate intensity of working capital. This concept tries to strike a level of liquidity that offers a relaxed balance of liquidity and profitability, that is, the investment of the company in working capital must be sufficient. It may generally be assumed that there is a negative relationship between the two but in most cases this may not always be true. Raheman and Nasr (2007) opine that the dilemma in liquidity management is to achieve desired trade-off between liquidity and profitability. Contrary to other findings, Eljelly (2004) found the existence of a significant negative relationship between profitability and liquidity among listed trading companies in Sri Lanka.

2.1. Conceptual Framework

Optimum liquidity and profitability management is very vital in the sound operation of banks activities. Bello (2003) opines that the banking system through the process of financial intermediation plays a pivotal role in promoting economic growth and development. Profitability does not translate to liquidity in all cases. A company may be profitable without necessarily being liquid. Liquidity and its management determines to a great extent the growth and profitability of a firm. Hornby (2010) opines that liquidity is the state of owning things of value that can easily be exchanged for cash. Also Okwoli (2012) posits that liquidity is the possession of cash by or ability of the firm to transform or convert an asset into cash. Kumbirai and Webb (2010) assert that liquidity indicates the ability of the bank to meet its financial obligations in a timely and effective manner.

Ajanthan (2013) asserts that profitability is a measure of the amount by which a company's revenues exceeds its relevant expenses. Profitability ratios are used to evaluate their management ability to create earnings from revenue-generating bases within the organization. A profit ratio indicates how much room a company has to withstand a downturn, fend off competition and make mistakes.

Prior studies by Haron (2004) for Islamic bank, Kosmidou *et al.* (2006) for UK Banks, and Pasiouras and Kosmidou (2007) for EU domestic banks have all found positive association between liquidity and bank profitability (ROA) whereas Dietrich and Wazenried (2011) for banks in Switzerland and Funacova and Poghosyam (2011) for Russian banks have found negative association between liquidity and bank profitability (ROA). This implies that the determinants of banks optimum liquidity and profitability management are not conclusive and same across countries. Thus, the particular factors that influence the profitability of the commercial banks need to be identified on a country base. Also Owolabi *et al.* (2011) posit that the relationship between liquidity and profitability has remained a source of disagreement among experts, researchers, professional financial analysts and even managements of profit-oriented businesses. Therefore, views on the actual relative relationship and importance of each in business enterprises have continued to differ.

2.2. Profitability and Liquidity Ratios

2.2.1. Profitability Ratios

According to Paul *et al.* Masud (2013); Islam and Salim (2011), Profitability ratios means a class of financial parameters or indices that are used to assess a business's ability to generate earnings as compared

to its expenses and other relevant costs incurred in a period. The profitability ratios used in this study are as follows:

a. Return on Assets (ROA). This measures how much the bank is earning for each naira invested in the assets of the firm after paying its tax. Return on Assets, as opined by Van Horne (2005) shows the profitability on the assets of the firm after all expenses and payment of taxes. Islam and Salim (2011) in Paul et al (2013) highlighted that ROA is the most stringent and excessive test of return to shareholders.

b. Return on Equity (ROE). This is used to measure how much the bank is earning after tax for each naira that is invested in shareholders' equity of the company. Van Horne (2005) stated that ROE indicates the profitability to shareholders of the firm after all expenses and taxes.

2.2.2. Liquidity Ratios

The two ratios used in this study as a measure of liquidity in banks are:

a. Loan to Deposit Ratio (LDR). This is a ratio in which liquidity of the bank is measured in terms of its deposits. According to Paul et al (2013), Loan to Deposit Ratio (LDR) is the most important ratio to measure the liquidity condition of the bank.

b. Loan to Assets Ratio (LTAR). This is a ratio which measures liquidity of the bank in terms of its total assets. This ratio is also seen as another important ratio that measures the liquidity condition of the bank.

2.3. Theoretical Framework

There are several theories on liquidity and profitability management. Nwankwo (1991) has analyzed four theories of bank liquidity which are; Anticipated Income theory, Shiftability theory, Commercial Loan theory and Liquidity Management theory.

The Anticipated Income theory posits that banks liquidity can be managed through the proper phasing and structuring of the loan commitments made by a bank to its customers while the Shiftability theory states that banks liquidity is maintained if it holds assets that could be shifted or sold to other lenders or investors for cash. The Commercial Loan theory holds that repayment from the self-liquidating assets of the bank would be sufficient to provide for liquidity. It emphasizes the maturing structure of bank assets and not necessarily the marketability of the assets. The Liquidity Management theory, according to Dodds (1982), consists of the activities involved in obtaining funds from depositors and other creditors (especially from the market) and determining the appropriate mix of funds for a particular bank. This theory thus focuses on the liquidity side of the bank statement of their financial position.

Similarly some of the profitability theories include the Clark's Dynamic theory which opines that profits arise in a dynamic economy, not in a static economy. The entrepreneurs who successfully take advantage of changing conditions in a dynamic economy make pure profit. The Hawley's Risk theory of profit posits that risk in business may arise due to such reasons as obsolescence of a product, sudden fall in the market prices, non-availability of crucial raw materials, introduction of better substitutes by competitors, risk due to fire, war and the like. Hawley affirms that profit is the price paid by society for assuming business risk.

However, the fundamental theory upon which this study is hinged on is the Liquidity – Profitability trade-off theory (TOT). According to Pourali and Arasteh (2013), the tradeoff theory highlights that companies keep an optimal level of their liquidity level by trying to strike equilibrium between their profits and the cost of keeping cash. They emphasized that the cardinal point in TOT is the suggestion that corporate firms determines the optimum level of their cash by determining the degree of their final cost importance and final profits from keeping cash. The emphasis of the theory is that there must always be a trade-off between profitability and liquidity.

2.4. Empirical Review

Junaidu and Aminu (2014) examine an evaluation of the impact of liquidity on the profitability of Nigerian banks. Findings show that there is no significant impact of liquidity on profitability among the listed banking firms in Nigeria. Andrew and Osuji (2013) in their study analyzed the efficacy of liquidity management and banking performance in Nigeria reveals that there is significant relationship between

efficient liquidity management and banking performance and that efficient liquidity management enhances the soundness of bank. Naser *et al.* (2013) examine the effect of liquidity risk on the performance of commercial banks in banks and the research shows that the variables of bank is size, bank's assets, gross domestic product and inflation will cause to improve the performance of banks while credit risk and liquidity risk will cause to weaken the performance of bank.

Alper and Anbar (2011) studies special and macroeconomic determinants of Turkey's bank during the years 2002-2010 and found that bank's size, liquidity and interest income have positive effect on the banks profitability, but credit risk and loans have a negative effect on the performance of banks. Haron (2004) examined the impact of different factors on the profitability of Islamic banks. The study reveals positive relationship between profitability, and liquidity, capital structure, and money supply while an inverse relation between profitability and asset structure and market share. Also Pasiouras and Kosmidou (2007) made a study to examine the factors that influence the profitability of commercial domestic and foreign banks in the 15 European Union countries. Their study indicates that liquidity is statistically significant and positively related to the profitability of domestic commercial banks, but liquidity is statistically significantly and negatively related to profitability of foreign banks. Owolabi *et al.* (2011) investigated liquidity – profitability relationship in business organizations through a study of selected quoted companies in Nigeria. The study shows that a trade-off existed between liquidity and profitability in the banking company. Olagunju *et al.* (2011) analysed liquidity management and commercial banks, profitability in Nigeria and their findings show a significant relationship between liquidity and profitability. That means profitability in commercial banks is significantly influenced by liquidity and verse –versa. Dhamendra and Charau (2012) posit that there is a trade-off between liquidity and profitability; gaining more of one ordinarily means giving up some of the other.

3. Methodology of research

Experimental design method was used in this study. Data were collected and analyzed using multiple regression correlation analysis, T-test and F-test.

This study used solely secondary data for its investigation and analysis. The data were extracted from published annual reports and accounts of the sampled banks quoted in the Nigerian Stock Exchange as at 31st December, 2013. Also the Central Bank of Nigeria (CBN) reports, CBN bullions, Research reports and academic articles from scholarly journals and textbooks were used. The data for a period of four year (2010 to 2013) were collected for analyzing all types of liquidity and profitability parameter and ratios.

The population of this study comprises all twenty one (21) banks quoted on the Nigeria Stock Exchange as at 31st December 2013. Purposive sampling method was used in selecting the sample size. The sample size selected for this study is ten (10) banks. This is based on the top 25 companies in West Africa as listed in Forbes 2013 Report. According to Forbes 2013, out of the top 25 companies in West Africa Capital Markets, Nigeria have 20 companies and out of this, nine (9) of them were banks. Hence the sample comprises of 8 from Forbes report and additional 2 banks randomly selected from annual reports for the relevant period totaling 10 (see appendix).

3.1. Model specification

The model specification for the multiple regression models is explained thus:

This study uses Return on Assets (ROA) and Return on Equity (ROE) as measure of banks profitability while Loan to Deposits Ratio (LDR) and Loan to Total Assets Ratio (LTAR) were used as measure of liquidity. Also, since there might be other explanatory variable that can affect the explained, the size of the firm (FS) was included in the model as a control variable. The study also used correlation analysis.

The model used for this study is thus shown below:

$$ROA = B_0 + B_1LDR + B_2LTAR + B_3FSIZE + e \quad (1)$$

$$ROE = B_0 + B_1LDR + B_2LTAR + B_3FSIZE + e \quad (2)$$

Where:

ROA = Return on Assets which represents banks profitability in equation 1,

ROE = Return on Equity which represents banks profitability in equation 2,
 LDR = Loan to Deposits ratio as a measure of banks liquidity,
 LTAR = Loan to Total Assets ratio as a measure of banks liquidity,
 FS = Firm size which is measured by log of total assets,
 B_0 is a constant; B_1 , B_2 and B_3 are coefficients.
 e = error term.

All data are analyzed and tested at 5% level of significance. There is a statistical significance when the F- statistics is < 0.05. Hence, if the p-value of the statistics is less than the significant level that is being tested, the Null hypothesis is rejected; if otherwise, it is accepted.

3.2. Data Analysis and Discussion of Findings

Table 1. Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
	Statistic	Statistic	Statistic	Statistic	Statistic
ROE	40	.0927	.10487	0.0115	0.0955
LDR	40	.5962	.17927	0.1095	0.9661
LTAR	40	.4150	.10146	0.2949	0.5545
FS	40	10.8094	.70536		
ROA	40	.0195	.02491	0.0022	0.09550
Valid N (Listwise)	40				

Source: Output from regression model

The profitability ratios as measured by Return on Assets (ROA) and Return on Equity (ROE) both have a mean of 0.0195 and 0.0927 respectively. The liquidity ratios as measured by Loan to Deposit ratio (LDR) and Loan to Total Assets ratio showed a mean of 0.5965 and 0.4150 respectively. Similarly, firm size which is the control variable introduced in the regression model showed a mean of 10. 8094. The minimum - maximum value for the profitability ratio are 0.0022 – 0.0955, while the Minimum – maximum value for the liquidity ratios are 0.1095 – 0.9661.

3.3. Tests of Hypotheses

Hypothesis 1

There is no significant relationship between liquidity and profitability of banks.

Table 2. Model Summary for equation 1: ROA

R	R ²	F test (P - Value)	Coefficients	T – test
0.500	0.207	(0.037)	Constant = 0.176	2.783
			LDR = 0.111	2.624
			LTAR = -0.132	-2.518
			FS = - 0.014	-2.382

Source: Output from regression model

Table 2 depicts the Model summary of the regression. The specification shows the ability of the explanatory variable in predicting the explained variable. From the table, the correlation coefficient (R) = 0.500 which shows that the variables under consideration have a moderate relationship. The coefficient of multiple determination (R² =0.207 shows that 20.7% of the total variation in banks profitability can be explained by the predictor variables LDR, LTAR and FS. F-test showing the P- values of 0.037 clearly indicates that the three variables under consideration have a significant difference in their mean at 0.05 level of significance.

All the parameter estimates were found to be significant, which make the model a good fit and therefore, can be used to make forecast for banks profitability- liquidity trade-off. Since hypothesis one is rejected, thus there is a significant relationship between liquidity and profitability of banks.

Table 3. Model Summary for equation 2: ROE

R	R ²	F test (P - Value)	Coefficients	T – test
0.500	0.204	(0.040)	Constant = 0.811	3.043
			LDR = 0.036	0.204
			LTAR = 0.017	0.057
			FS = - 0.069	2.053

Source: Output from regression model

From the table 3, R=0.500 shows that the variables under consideration has a moderate relationship. R Square=0.204 shows that 20.4% of the total variation in ROE can only be explained by LDR, LTAR and FS. F-test showing the P-values is 0.040 which clearly indicates that the three variables under consideration have a significant difference in their mean at 0.05 level of significance. Since hypothesis one is rejected, thus there is no positive relationship between liquidity and profitability of banks.

Table 4. Correlation Analysis

Variables	Correlation Values				P values		
	ROE	LDR	LTAR	FS			
LDR	-0.039				0.407		
LTAR	0.046	0.848			0.385	0.000	
FS	-0.445	0.246	0.050		0.220	0.061	0.380
ROA		-0.075	-0.085	-0.223	0.328	0.300	0.831
LDR			0.848	0.246	0.000		0.831
LTAR				0.050	0.380		

Source: Output from regression model

Table 4 depicts the partial correlation among all the variables when other variables are held constant. ROE/LDR and ROA/LDR shows a negative relationship with correlation values of -0.039 and -0.075 respectively.

Hypothesis 2

H₀2. There is no significant relationship between Loan to Deposits ratio and Return on Assets.

Table 5. Correlation Result 1

Variables	Correlation Value	Coefficients
LDR/ROA	-0.075	0.111

Source: Output from regression model

The multiple linear Regression equation is given by: $ROA = 0.176 + 0.111LDR + 0.132LTAR + 0.014FS$

From the correlation analysis in table 5, hypothesis two is rejected as ROA/ LDR shows a negative relationship with a value of -0.075, thus there is a significant relationship between loan to deposits ratio and return on assets.

Also, from the regression model equation above, we can deduce that for every 1 unit increased in LDR, there is an increase of 0.111 units in ROA.

Hypothesis 3

H₀3. There is no significant relationship between Loan to Total Assets ratio and Return on Equity.

Table 6. Correlation Result

Variables	Correlation Value	Coefficients
LTAR/ROE	0.046	0.017

Source: Output from regression model

The multiple linear Regression equation is given by: $ROE = 0.0811 + 0.0036_{LDR} + 0.017_{LTAR} + 0.069_{FS}$.

From the correlation analysis on table 6, hypothesis five is rejected as LTAR/ ROE shows a positive relationship with a value of 0.046. Thus there is a significant relationship between loan to deposit ratio and return on equity.

However the liquidity variables LDR/LTAR shows a positive relationship with a correlation value of 0.848 and a p value of 0.000 which is significant at 5% level of significance when all other variables are held constant. This further validates our earlier assertion that a profitable company might not be liquid but there is every possibility that a liquid company might also not be seen as a profitable company. There is a need to establish synergy in the management of the two with a view of attaining an optimum point. This can be seen as the point when an increase in liquidity should also affect the increase in profitability.

4. Discussion of Findings

The model summary in tables 2 and 3 showed the aggregate impact of liquidity on banks profitability and is used in testing the first hypothesis. Using Return on Assets (ROA) as a measure of banks profitability on the predictor variables, the correlation coefficient (R) show a value of 0.500 while the coefficient of multiple determination (R^2) show a value of 0.207. This shows that 20.7% of the variations in the explanatory variables could be explained by the liquidity variables in the model. The findings show that there are other variables (not accounted for in the model) apart from liquidity that could affect banks profitability. This represents 79.3%. Similarly, using Return on Equity (ROE) as a measure of profitability, the correlation coefficient (R) also show a value of 0.500 while the coefficient of multiple determination show a value of 0.204. This shows that the two profitability measures as shown in equation 1 and 2 produced similar results from the analysis. The p values of 0.037 and 0.04 is less than 0.05 is significant at 5% level of significance and we conclude that there is a significant relationship between profitability and liquidity of listed banks in Nigeria. These collaborates the findings in Ajanthan (2013), who investigated and found the existence of a significant relationship between liquidity and profitability of companies in Sri Lanka.

However, there is the need to test the optimum trade-off in liquidity and profitability management of banks using such variables as return on assets and return on equity as a measure of profitability, and loan to deposits ration and loan to total assets ratio as a measure of liquidity. The correlation analysis shows that Loan to Deposit Ratio which is a measure of liquidity has an inverse relationship with both ROA and ROE respectively. However, Loan to Total Assets Ratio has an inverse relationship with profitability when ROA is used as a measure of profitability but shows a positive relationship with profitability when ROE is used as a measure of profitability. Hence, using LDR on ROA, we can conclude that there is an inverse relationship between liquidity and profitability. This is in line with the findings in Eljelly, (2004).

However, the output in Table 6 shows that an increase in liquidity as measured by LTAR also results to an increase in profitability as measured by ROE. This agrees with the findings in Bhunia *et al.* (2012) that the concept of optimal management of liquidity and profitability is to strike a level of liquidity that offers a relaxed balance on profitability. This optimal point is also collaborated in Dharmendra and Charau (2012) who opine that firms should try not to maximize or minimize liquidity values but rather should try to optimize them in such a way that the profit maximization objectives of firms are not hindered. On the other hand, having used firm size as a control variable in the regression model, the findings revealed that firm size is insignificant in determining banks liquidity and profitability. Hence companies don't need to be very large in size before it could be liquid or make profit.

5. Summary of Findings

This study empirically investigates the optimum synergy between liquidity and profitability management of selected quoted banks. The results of the study are as follows:

1. There is a significant relationship between liquidity and profitability of banks.
2. A significant relationship exists between loan to deposits ratio and return on assets.
3. Loan to total assets ratio has a significant relationship with return on assets.
4. There is a significant relationship between loan to deposits ratio and return on equity.
5. A significant relationship exists between loan to total assets ratio and return on equity.

6. Conclusions

Based on the findings of this research work, the following conclusions are drawn;

Firstly, there is a relationship between profitability and liquidity. As opined by Ajanthan (2013), a company may be liquid but this does not mean that the company is profitable. Secondly, loan to deposit ratio which is one of the most important measure of liquidity shows an inverse relationship with profitability. This collaborate the findings in Velnampy and Nimalathasan, (2009). Hence a company in pursuit of one may be at the detriment of the other. As such, firms should try to optimize their liquidity without hindrance to their profit maximization goal.

7. Recommendations

For optimum liquidity and profitability management in banks, this study recommends that:

1. Banks should efficiently and effectively manage their working capital and maintain optimal liquidity and profitability level.
2. Central banks of Nigeria and other regulatory bodies in Nigeria should intensify the monitoring of banks to ensure their compliance to liquidity guidelines and that appropriate and stiff sanctions should be taken against banks that mismanage their working capital.
3. Banks should always be mindful of liquidity risks while pursuing their profit maximization objective.
4. Banks should consider and evaluate other factors such as size that are bound to affect their profitability.

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