GSU JOURNAL OF ACCOUNTING & FINANCE (GJAF)

PRIMUS INTERPARES

GSU JOURNAL OF ACCOUNTING AND FINANCE

Vol. 1 ISSUE 1 June/July 2024

PUBLICATION OF:
THE DEPARTMENT OF ACCOUNTING,
GOMBE STATE UUNIVERSITY GOMBE

GSU JOURNAL OF ACCOUNTING AND FINANCE
Vol. 1 ISSUE 1 June/July 2024

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LIQUIDITY AND PROFITABILITY: A STUDY OF LISTED CONSUMER GOODS COMPANIES IN NIGERIA

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Abstract

This study examined the effect of liquidity on profitability of consumer goods companies listed in Nigeria. Ex-post facto research design was adopted using secondary data for the period (2013-2022). Multiple regression analysis was used in analyzing the data. The outcome revealed that current ratio has an inverse but not statistically significant effect on ROA, quick ratio has a positive and not significant effect on ROA, cash ratio has a negative but not significant effect on ROA. However, current ratio has a positive but not significant effect on ROE, quick ratio and Cash ratio has an inverse though not significant influence on ROE. The study conclude that liquidity is inversely related with profitability of listed consumer goods companies in Nigeria, hence the need for effective and efficient liquidity management cannot be underestimated. Management of listed consumer goods companies should strive to maintain optimal level of liquidity to avoid the risk of being illiquid since it negatively affects profitability.

Keywords: Liquidity, Profitability and Consumer goods Companies

1.0 Introduction

The need to address liquidity crunch especially at this trying time of global financial issues cannot be underestimated because bank loans and issue of shares are becoming too expensive as a result of high interest rate and the volatility of both the local and international financial market. However, this is in consideration of the fact that manufacturing organization need to finance and maintain daily operation hence the need to strike a balance between excessive liquidity and profitability (Akinsuleri 2011).

According to Samuel (2016) effective liquidity management concern with efficient utilization of cash and cash equivalents to meets short-term demands on due date. It is an aspect of an organization decision that consequently influences the organizational strength to survive temporary shocks which might be detrimental to profitability. Liquidity and profitability are essential component in the strategic development, growth and survival of manufacturing

organizations. However, for an organization to be highly liquid and profitable as well requires a trade-off, which has become a source of concern to management at all levels.

The term profitability is a measure of the amount by which firm's revenues exceeds total expenses. This is important because existing and prospective investors are interested in regular and constant dividends payout and the appreciation in market share price. In addition, managers are also interested in high operating performance (profitability) particularly when they are paid based on performance. As such, lower profit margin would reflect management inefficiencies and prospective investors would be hesitant to invest in such a company.

Manufacturing firms are in needs to strike and maintain a balance between profitability, liquidity and smooth daily operations. This is because the significance of an effective liquidity management cannot be over-emphasized in view of its influence in lubricating the business cycle (Ibi, 2013). However, the inverse relationship between excessive liquidity and profitability required the need for a trade-off to maximize the value of the firm, since the main goal of effective liquidity management is to generate a satisfying profitability and maximizes shareholders' wealth (Junaidu & Aminu, 2014).

According to Alshatti (2014) illiquidity and inability of companies to generate profit become a major reason for liquidation. However, the profitability of some Nigerian consumer goods companies is consistently reducing despite the need for the services of the sector because it produces goods for the daily consumption of humans which is highly needed for survival. Hence, this study determined the interface between liquidity and profitability of listed consumer goods companies in Nigeria.

2.0 Review of Empirical Studies on Liquidity and Profitability

There exist a great body of empirical studies on the relationship between liquidity and profitability for example Owolabi and Obida (2012) examined how liquidity affects profitability of selected manufacturing companies in Nigeria. The study used secondary data which was analysed with multiple regression analysis. Finding revealed a significant relationship between

liquidity management (credit policies, cash flow management and cash conversion cycle) and profitability.

Similarly, Eric, et al. (2013) investigated the relationship between liquidity and profitability. The study used time series data of brewery firms in Ghana for a period of 5 years. Data were analysed using multiple regressions analysis and the findings revealed a significant impact of liquidity on profitability of listed brewery firms in Ghana. However the major weakness observed in the study is the time scope of only 5 years, more than five years time frame could have been use in order to have a more robust results.

In the same vein, Egbide, et al. (2013) investigates the relationship between liquidity and profitability of some manufacturing companies in Nigeria. The study covered 2006-2010. The study revealed that current ratio (CR) and quick ratio (QR) have a positive impact on profitability, however, cash conversion circle (CCC) have a negative and significant effect on the profitability. However the major weakness observed in the study is the time scope of only 5 years. More than five years time frame could have been use in order to have a more robust results.

Ibe (2013) assessed the influence of liquidity on the profitability of three (3) commercial banks in Nigeria. Secondary data were used and Elliot Rothenberg Stock (ERS) stationary test was used to analyse the data. The findings revealed a significant influence of liquidity management on profitability. However the major weakness observed in the study is the sample size of only 3 banks out the fifteen banks, more than 3 sample size could have been use in order to have a more robust results that can be generalized.

Similarly, Tobi, et al. (2016) examined the relationship between liquidity and profitability of manufacturing firms in Nigeria. Data were sourced from the financial report of the firms under study the data was analysed using OLS regressions analysis. The findings confirmed inverse relationship between liquidity and profitability of healthcare and Breweries companies. The

results further revealed a positive and significant impact of liquidity on profitability of building material, chemical and conglomerate companies in Nigeria.

Madushanka and Jathurika (2018) examined the influence of liquidity on profitability of 15 manufacturing companies in Sri Lanka for a period 2012 to 2016. Regression analysis was applied in the study and findings revealed a positive and significant effect quick ratio on profitability of the listed manufacturing companies in Sri Lanka. However the major weakness observed in the study is the time scope of only 5 years, in addition liquidity was proxied with quick ratio only, more than five years time frame with many proxies (current ratio, quick ratio and cash conversion circle) could have been use in order to have a more robust results.

Mishra and Pradhan (2019) determined the impact of liquidity management on the profitability of commercial banks in India. Data for a period of 5 years (2013-2017) was analysed with multiple regression analysis. The findings uncovered a negative and significant influence of credit deposit ratio and interest deposit ratio on return on asset but a non-significant influence was uncovered between liquidity measures and return on equity. However the major weakness observed in the study is the time scope of only 5 years, more than five years time frame could have been use in order to have a more robust results.

Nguyen et al (2024) examined the impact of a company's liquidity and efficiency on profitability of Vietnam's top 100 listed companies using secondary data. Pooled Regression analysis was use for data analysis. The results uncovered a positive and significant impact of liquidity, efficiency, and growth on profitability. In addition, the research results also confirmed a negative and significant impact between financial leverage and profitability.

Patel and Ramanuj (2024) examined the relationship between liquidity and profitability of two selected Indian IT companies using ten year secondary data (2014-2023). Regression analysis was used and the findings revealed no significant interface between the liquidity ratio and the profitability ratio of the companies under study. It can be deduced from the reviewed literature that cash ratio was ignored and its influence on liquidity management cannot be underestimated.

2.2 Theoretical Review

Previous studies have used agency theory to explain the association between profitability and liquidity management. The agency cost theory first stated by Jensen and Meckling in 1976. The agent's unperfected behavior caused the creation of the agency problem. There are two forms of the agency cost, there are two kinds of conflict, one conflict is between the shareholders and the managers, and the other conflict is between the shareholders and the creditors.

The first conflict comes from the managers who are not the wholly owners of the company, if the managers wholly own all company, then the control and the ownership would be together instead of the separation, then the managers cannot have all the profit. However, due to the separation of ownership and control managers cannot own the whole company, hence agency conflict exists.

Further, the inverse relationship between liquidity and profitability justifies the need for effective and efficient management of liquid assets since the aim of private business is to maximized shareholders wealth which can only be achieved when the business is profitable. Hence agency theory was adopted as the theory that underpins this study.

3.0 Methodology

Ex-*post facto* research design was adopted because the study entails the use of secondary data obtained from the annual report and accounts of the quoted consumer goods companies for the period 2013 -2022.

The population of this study consists of all the 20 quoted consumer goods companies in the Nigerian Stock Exchange as at 31 December, 2020. However, 8 companies were randomly selected as a sample size. Consistent with the study of (Saleem & Rehman, 2011; Owolabi and Obida 2012; Afza & Nasir 2012; Rajdev, 2013; Agbada & Osuji, 2013 and Ajanthan, 2013; Hillary 2017; and Yusoff, 2017). Multiple regressions was employed. This is because multiple regressions are expected to explain the variation in dependent variable due to the variation in any of the independent variables.

Table 1: The Variables of the Study and their Measurement

Two different variables (dependent and independent) are consider in this study.

Variable Name	Type of Variable	Measurement	Sources
Return on asset (ROA)	Dependent	PBT divided by Total asset	Saleem & Rehman, 2011; Owolabi and Obida 2012; Afza& Nasir 2012;
Return on Equity (ROE)	Dependent	PAT divided by Total equity	Owolabi and Obida 2012; Afza& Nasir 2012;
Current Ratio (CR)	Independent	Current asset divided by current liabilities	Owolabi and Obida 2012; Afza& Nasir 2012;Rajdev, 2013; Hillary 2017; Yusoff (2017)
Quick Ratio (QR)	Independent	(Current asset – closing inventory) / current liabilities	Asare, Kamoah, Nimo, Graham & Boateng (2013); Samuel (2016)
Cash ratio (CashR)	Independent	Cash and cash equivalent divided by current liabilities	Agbada & Osuji, 2013; Eric, Amoah, Francis, Cynthia & Kwak (2013).
Company Size (FSIZE)	Control	Log of total assets	Samuel (2016) Hillary (2017) Yusoff (2017)
Leverage (LEV)	Control	Liabilities divided by total asset	Ajanthan, 2013; Samuel (2016).

Source: Compiled from literature, 2021.

3.3 Model Specification

The general models based on the variables of the study is as follows:

$ROA_{it} = \alpha + \beta_1 CR_{it} + \beta_2 QR_{it} + \beta_3 CashR_{it} + \beta_4 LEV_{it} + \beta_5 SIZE_{it} + \varepsilon$ ……i

$ROE_{it} = \alpha + \beta_1 CR_{it} + \beta_2 QR_{it} + \beta_3 CashR_{it} + \beta_4 LEV_{it} + \beta_5 SIZE_{it} + \varepsilon$ ……ii

Where;

ROA is Return on assets

ROE is Return on equity.

CR is Current ratio

QR is Quick ratio

CASHR is Cash ratio

SIZE is firm size

LEV is leverage

α is the constant term

β is the regression coefficient

i is firms

t is time measured in years

4.0 Results and Discussion

This section presents analysis and interprets the data generated for the study. The data relating to each of the statistical hypotheses of the study were presented and analyzed. The hypotheses of the study were also tested and inferences there from.

4.1 Descriptive Statistics

Table 4.1 provides summary of statistics for the dependent and explanatory variables of the study. The summary statistics include measures of central tendency, such as mean, measures of dispersion (the spread of the distribution) such as the standard deviation, minimum and maximum.

Table 4.1 Descriptive Statistics

Variables	Obs.	Mean	Std. Dev.	Min	Max
ROA	80	0.1379	0.5215	-0.3080	3.8622
ROE	80	0.0388	0.7386	-5.2052	0.5505
CR	80	2.4702	2.0546	1.0047	5.9253
QUICKR	80	0.9923	1.5558	0.944	3.1630
CASH RATIO	80	2.3093	14.4532	0.3001	1.4372
LEVERAGE	80	0.5219	0.5405	0.0035	4.266572
FSIZE	80	10.449	1.0218	7.7581	11.68359

Source: STATA Output from the variables of the study.

Table 4.1 shows the mean of 0.1379 for ROA means that the average return on asset of the listed consumer goods companies in Nigeria is approximately 13.8% with the minimum and maximum of -0.3080 and 3.8622 respectively. The mean of 0.0388for ROE meaning that the average return on equity of the listed consumer goods companies in Nigeria is approximately 0.4% with the minimum and maximum of -5.2052 and 0.5505 respectively. The mean of current ratio is 2.4702, meaning that the average current ratio of the listed consumer goods companies in Nigeria is approximately 2.5 with the minimum and maximum of 1.0047 and 5.9253. Quick ratio has a mean of 0.9923 which means that on average the listed consumer goods companies in Nigeria hold liquid assets of 1:1 ratio with minimum and maximum of 0.944 and 3.1630respectively. Cash ratio has a mean 2.3093 which means that on average the listed consumer goods companies in Nigeria hold cash and cash equivalent ratio of 2.3:1 ratio with minimum and maximum of 0.3001 and 1.4372 respectively.

leverage measured as total debt divided by total assets has a mean of 0.5219, with the minimum and maximum of 0.0035 and 4.266 respectively while firm size, measured by the natural logarithm of total assets has a mean of 10.449, with the minimum and maximum of 7.7581 and 11.6835 respectively.

Table 4.2 Correlation Matrix of the Dependent and Independent Variables

VARIABLES	ROA	ROE	CR	QUICKR	CASH RATIO	LEV	SIZE
ROA	1.000						
ROE	0.0804	1.000					
CR	-0.080	0.058	1.000				
QUICKR	-0.066	0.054	0.9305	1.000			
CASHRATIO	-0.002	0.015	-0.0633	-0.2916	1.000		
LEV	-0.015	0.044	0.4996	0.6513	-0.062	1.000	
FSIZE	-0.238	-0.003	0.2344	0.3043	-0.330	0.1954	1.000

Source: STATA Output from the variables of the study.

Table 4.2 shows the correlation coefficients on the relationship between the dependent variable (ROA and ROE) and independent variables (current ratio, quick ratio, cash ratio, size, and leverage). The values of the correlation coefficient range from -1 to 1. The correlation results presented in table 4.2 indicate that all the explanatory variables are negatively correlated with the

return on assets. The explanatory variable is positively correlated with ROE however, firm size is negatively correlated with ROE.

Table 4.3 Robust Regression Result ROA Model

ROA	Coef.	Std.err	Z	p>/z/
CONSTANT	1.5555	2.0446	0.76	0.450
CR	-0.0151	0.0472	-0.32	0.751
QUICKR	0.0027	0.0755	0.04	0.972
CASHRATIO	-0.0032	0.00505	-0.63	0.534
LEV	0.0541	0.2245	0.24	0.811
FSIZE	-0.1358	0.1881	-0.72	0.0450
R-square F-value P-value	0.2668 2. 67 0.0278			

Source: STATA Output from the variables of the study.

The regression results displayed in table 4.3 reveal the cumulative R^2 within (0.2668) which is the multiple coefficients of determination that gives the proportion or percentage of the total variation in the dependent (ROA) variable explained by the explanatory variables jointly. Hence, it signifies that 26.7% of total variation in ROA of listed consumer goods companies in Nigeria is accounted by the explanatory variables. Current ratio has a negative but not significant relationship with ROA, Quick ratio has a positive but not significant relationship with ROA, Cash ratio has a negative but not significant relationship with ROA, leverage has a positive but not significant relationship with return on assets however the relationship between firm size and ROA is negative and statistically significant.

The regression results as shown in table 4.3 indicate a negative but not significant relationship between current ratio, cash ratio and ROA, this confirmed the inverse relationship between liquidity and profitability, the result is consistent with the findings of Samuel (2016); Tobi, Osidero& Kareem (2016) and Mishra & Pradhan (2019) who documented a negative and significant relation between ROA and cash conversion circle, size and leverage.

In view of the results reported of current ratio, cash ratio, quick ratio, firm size and leverage showing that all the variables have insignificant relation provides evidence for the acceptance of null hypothesis that there is no significant relationship between liquidity management and profitability.

Table 4.4 Random-effects GLS regression ROE model

ROA	Coef.	Std.error	t	p>/z/
CONSTANT	-0.4157	1.5381	-0.27	0.787
CR	0.0578	0.2187	0.26	0.792
QUICKR	-0.0852	0.3511	-0.24	0.808
CASH RATIO	-0.00114	0.0115	-0.10	0.921
LEV	0.1019	0.3366	0.30	0.762
FSIZE	0.0381	0.1470	0.26	0.795
R-sqr: within Between overall F-value P-value	0.4147 0.3242 0.3008 2.965 0.0986			

Source: STATA Output from the variables of the study.

The regression results displayed in table 4.4 reveal the cumulative R^2 (0.3008) which is the multiple coefficients of determination that gives the proportion or percentage of the total variation in the dependent (ROE) variable explained by the explanatory variables jointly. Hence, it signifies that 30% of total variation in ROE of listed consumer goods companies in Nigeria is accounted by the explanatory variables. Current ratio has a positive but not significant relationship with ROE, Quick ratio has a negative but not significant relationship with ROE, Cash ratio has a negative but not significant relationship with ROE, leverage has a positive but not significant relationship with return on equity similarly the relationship between firm size and ROE is positive but not statistically significant.

The regression results as shown in table 4.4 indicate a positive but not significant relationship between current ratio and ROA, this finding is consistent with the findings of Owolabi and Alu

(2012) and Kurawa and Abubakar (2012) who found a positive but not-significant relation relationship between the ROA and bank balance. Also consistent with the findings of Toby (2014). However, Quick ratio, Cash ratio and ROA are negatively related. this result is consistent with the findings of Samuel (2016); Tobi, Osidero& Kareem (2016)and Mishra & Pradhan (2019) who documented a negative and significant relation between ROE and cash conversion circle, size and leverage.

In view of the results reported of current ratio, cash ratio, quick ratio, firm size and leverage showing that all the variables have insignificant relation provides evidence for the acceptance of null hypothesis that there is no significant relationship between liquidity management and ROE of listed consumer goods companies in Nigeria.

5.2. Conclusion and Recommendatiosn

This study examines the effects of liquidity management on profitability of listed consumer goods companies in Nigeria. In line with the findings of this study, it is obvious that a negative and significant relationship exist between current ratio, cash ratio and return on assets, this confirmed the inverse relationship between liquidity and profitability based on the findings the study concludes that liquidity is inversely related with profitability of listed consumer goods companies in Nigeria, hence the need for effective and efficient liquidity management cannot be underestimated. The study therefore recommended that management should strive to maintain optimal level of liquidity to avoid the risk of being illiquid since it negatively affects profitability.

References

Afza, T. & Nasir, M.S. (2009). Impact of aggressive working capital management policy on firm's profitability, *The IUP Journal of Applied Finance*. 19-30

Agbada, A., Osuji C.C. (2013). The efficiency of liquidity management and banking performance in Nigeria. *International Review of Management and Business Research Journal* 2(1).

Asare, K. E., Kamoah, A, Nimo, F., Graham, C. & Boateng, O. K. (2013). Relationship between corporate liquidity and profitability; Evidence from quoted brewery companies on the Ghana stock Exchange (GSE).

Akinsuleri, O. (2011). Financial Management Lagos: El-Toda ventures ltd seventh edition p43, 672-673,

Ajanthan, A. (2013). A Nexus between Liquidity and Profitability: A study of trading companies in Sri lanka. *European Journal of Business and Management.*

Bassey, G. E. & Moses, C. E. (2015). Bank Profitability and Liquidity Management: A Case study of selected Nigerian Deposit Money Banks International *Journal of Economics, Commerce and Management United Kingdom 3(4)*

Egbide, B., Uwigbe, O. & Uwalomwa, U. (2013).Liquidity management and profitability of manufacturing companies in Nigeria *OSR Journal of Business and Management (IOSR-JBM) 9(1)* PP 13-21.e-ISSN: 2278-487X.

Eric, A. K., Amoah, L., Francis, N. Cynthia, G. & Kwak, B. O. (2013). Relationship Between Corporate Liquidity and Profitability; Evidence from Quoted Brewery Companies on The Ghana Stock Exchange (GSE).

Hillary, B. (2017).Effect of liquidity management on the performance of commercial banks. a case of Stanbic bank Uganda limited a research report submitted to the school of postgraduate studies Makerere university

Ibi, S.O. (2013). The Impact of Liquidity Management on the Profitability of Banks in Nigeria. *Journal of Finance and Bank Management* 1(1). 37-48. www.aripd.org/jfbm

Jensen, M. C. (1986). Agency Cost of Free cash flow, Corporate Finance and Takeovers. The American Economic review, 76(2) 323-329. *Jordanian Commercial Banks Journal of Finance and Bank Management 1(1) 37-48*

Junaidu, M. & Aminu, A. (2014). An Evaluation of the impact of liquidity on the profitability of Nigerian banks. *Research Journal of Management* 2(7) 2347-8217

Lamberg, S. & Valming, S. (2009). Impact of liquidity management on profitability A study of the adoption of liquidity in a financial crisis. Master Thesis, Umea School of Business, Umea University.

Madushanka, K. H. I. & Jathurika, M. (2018). The Impact of Liquidity Ratios on Profitability With special reference to Listed Manufacturing Companies in Sri Lanka, *International Research Journal of Advanced Engineering and Science, 3(4), pp. 157-161,*

Myers, S. C. & Majluf, S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics. 13*(1), 187–221.

Myers, S. C. (2003). Capital structure. *Journal* of *Economic Perspectives, 15*(2), 81-102.

Mishra, S. & Pradhan, B. B. (2019). Impact of Liquidity Management on Profitability: An Empirical Analysis in Private Sector Banks of India Impacto de la gestión de liquidezen la rentabilidad: un análisisempíricoen los bancos del sector privado de la India

Nguyen, A., Katir, A. & Nguyen, L. (2024). The Impact of Liquidity and Corporate Efficiency on Profitability of listed companies in Vetanam

Owolabi, S.A. & Obida, S.S. (2012). Liquidity Management and Corporate Profitability: Case Study of Selected Manufacturing Companies Listed on the Nigerian Stock Exchange *Business Management Dynamics 2(2)10-25*

Patel, A. & Ramanuj, J. (2024). Liquidity and Profitability Analysis of the Selected IT Companies of India. (2024). *International Journal of Management, Economics and Commerce*, 1(1), 39-47.

Rajdev, M.S. (2013). Trade-off between liquidity and profitability, an empirical study. *Journal of Arts, Science & Commerce* 4(3).

Saleem, Q. & Rehman, R. (2011). Impacts of Liquidity Ratios on Profitability; *Interdisciplinary Journal of Research in Business* 4(7) 95-98

Samuel, O. T. (2016). Impact of liquidity management on the financial performance of listed food and beverages companies in Nigeria

Tobi, B. A., Osidero, P.H. & Kareem, T. O. (2016). Empirical of Liquidity and Profitability in The Nigerian Manufacturing Sector *International Journal of Economics, Commerce and Management United Kingdom* 4(9)

Wang (nd). Liquidity Management, Operating Performance, And Corporate Value--Evidence from Japan and Taiwan Yung-Jang Wang Department of Finance National Chung Cheng University Chia-Yi 621, Taiwan, R.O.C

Yusuf, M. O., Nwufo, C. I. & Emmanuel, I. C. (2019). Optimum Synergy between Liquidity and Profitability Management of Quoted Banks: The Nigerian Perspective *International Journal of Academic Research in Accounting, Finance and Management Sciences* 9(2)

Yusoff, H. B. D. (2017). The effect of liquidity and solvency on profitability: the case of public-listed consumer product companies in Malaysia