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# LIQUIDITY MANAGEMENT AND ITS IMPACT ON FINANCIAL PERFORMANCE OF QUOTED CONSUMER GOODS COMPANIES IN NIGERIA

**COLLINS EKE**
**Distance learning centre**
**ABU Business School**
**Ahmadu Bello University Zaria, Kaduna State**
**Email: akcollinsak@outlook.com**
**Phone: +2348130502233**

**&**

**KABIRU JINJIRI RINGIM**
**Ahmadu Bello University Zaria, Nigeria**
**Email: kabirujinjiri@yahoo.com, +2348062103566**

**Abstract**

*This study empirically analysed the impact of liquidity management on financial performance of quoted consumer goods companies domiciled in Nigeria. The population of this study consists of all consumer goods companies whose shares were traded on the floor of the Nigeria stock Exchange from 2009 to 2020, taking into consideration, the period post global economic meltdown, and the subsequent lull in business activities due to the COVID-19 pandemic. One of the greatest effects of the dreaded COVID-19 pandemic and subsequent containments and lock downs all across the globe was the problem of distribution and supply chain administration by consumer goods companies and supply chain experts/specialists especially. Companies were forced to come up with unique and innovative ways of sourcing raw materials as seaports and airports were close which presented a logistics nightmare. The sample size was 7 consumer goods companies whose shares were traded on the floor of the Nigeria stock Exchange. The data were obtained from the annual reports and accounts of the sample companies and Nigerian Stock Exchange Fact Book. The method of data analysis used in this study is the Least Squares Regression Method. The results showed a positive and a weak direct relationship between cash ratio (0.0134) and return on assets of quoted consumer goods companies in Nigeria. Also, the results showed a negative and weak inverse relationship between current ratio (0.0125) and return on assets of quoted consumer goods companies in Nigeria. The results also showed a negative and a weak inverse relationship between quick ratio (0.0034) and return on assets of quoted consumer goods companies in Nigeria. Therefore, the study recommends that consumer goods companies should focus on improving their asset utilization ratio so as to improve their performance. This is because a change in the liquidity management of consumer goods companies would not have significant influence on their financial performance.*

**Keywords: liquidity management, financial performance, COVID-19, Return on assets, current ratio, consumer goods**.

## 1. Introduction

Liquidity will simply be referred to as a company's ability to pay bills as they arise. Business liquidity gives a perception of the capacity of company to cover short term or current obligations as well as to reimburse creditors on maturing loan obligations which are critical to a firm's going concern. A liquid company is one with sufficient liquid assets which entail cash holdings and possesses the capacity to raise resources quickly from other ventures to enable it to meet its payment obligation and financial commitment in an appropriate manner. The firm that is unable to service its obligations to it suppliers and creditors as at when due would most likely be termed insolvent. So critical is liquidity for every business both in Nigeria and around the world, that a company cannot function without it. Various responsibilities such as finance related expenses as well as operating expenses are tied to liquidity. Additionally, long term debt which may form part of the capital stock are also determinant on the level of liquidity. The Management of Liquidity is a direct tie-in to the management of working capital and its components viz; inventories, cash and cash equivalents and short term/current liabilities. Definitively, the management of management entails the quick transformation of stock or inventory and receivables to cash, prompt payment of creditors, and the astute re-investment of free lying cash into cash equivalents such as treasury bills and commercial papers which are short term in nature, and easily marketable. All these contribute to the ultimate goal of profit maximisation.

Regardless of the fact that the eventual risk of capital loss rests on the shoulders of the shareholders upon insolvency, the risk of financial loss is also carried by unsecured creditors. When the financial fortune of an enterprise is worsening or weakening, the long term secured creditors may attempt to recover their security. In the case of unsecured short-term creditors, they have nothing to fall back on, and thus, it is disastrous for this category of creditors to give credit to a firm evidently experiencing financial problems.

In managing working capital, firms always maintain a compromise just within a threshold of low and excess liquidity as both extremes have different advantages and disadvantages. Lower liquidity translates to a false image that may be detrimental to creditors as indicates a blatant inability to meet short-term maturing obligations hence creditors may shy away from such firm. A quick test is the current ratio which is the ration of the current assets to current liabilities, translating to the ease at which the short tenured assets can cover short tenured maturing obligations. Also key is the cash ratio, which is the ration of cash and cash equivalents to current liabilities.

Profit maximisation, a key tenet for Shareholders ensures that the business continues into the foreseeable future. The compensation for taking on risk which is bundled in any business venture is profit, hence its the main objective of a business, the absence of which inadvertently translates to bankruptcy. Other goals or objectives may be sacrosanct, but Profit making is key as it is vital for business growth as well as survival in the murky economic climate.

The profitability of a company is basically its capacity to incur expenses less than its income generated and as a good measure of performance, it is the profit generating ability of an asset (return on asset ROA) or alternatively, the rate of return on investment (ROI), "If there will be an unjustifiable over-investment in current assets then this would negatively affect the rate of

return on investment" (Vishnani & Shah, 2007). Even though the definitive objective of any firm is profit maximisation, a firm's liquidity management is key also. It is pertinent to note that focus on the maximisation of profit at the expense of astute liquidity management can be detrimental to a firm's existence. Thus there must be a compromise between these two, setting a moderate divide towards the pursuit of both objectives as both are equally important.

Liquidity and financial performance are two very critical and dynamic aspects of a business. A loss-making firm will be termed as sick while a non-liquid firm will inadvertently shut down. "Liquidity has thus, become a basic and broad aspect of judging the performance of a corporate entity" (Bardia 2007). Therefore, it is pertinent to maintain an equilibrium in the amount of liquidity held by a firm; a reasonable amount sufficient to cover operations and not accumulate idle funds. "Thus, the need for efficient liquidity in corporate businesses has always been significant for smooth running of the business" (Valrshney, 2008). Liquidity requirements of a firm depend on the uniqueness of the firm with no laid down specifics in the determination of the appropriate levels of liquidity to be maintained by such firms. This study therefore examines the effect of liquidity on financial performance on quoted consumer goods companies in Nigeria.

## 2. Literature Review

### 2.1 Liquidity Management

Liquidity Management has been a key area of focus in firm management due to uncertainty of the future. Attention therefore has been placed on this all over the world due to the deteriorating state of the world economy. With the advent of the pandemic, the onus is therefore on managers and business owners around the world to come up with relevant strategies to supplement their day-to-day operations management in order to meet short term maturing obligations as well as maximise shareholder wealth and profitability."It involves planning and controlling current assets and current liabilities in such a way that: (i) the risk of not meeting short-term obligations, that fall due, is eliminated; and (ii) too much investment in current assets is avoided"(Adebayo, 2011).

Also, according to Pandey, "Liquidity has been an area of concern to the management of firms because of the uncertain nature of the future; it is receiving serious attention all over the world especially with the current state of the world's economy" (Pandey, 2010). Current assets consist of cash, trade receivables, inventories which are easily converted to cash. The most liquid form of assets remains cash although other forms of assets have to an extent, varying liquidity levels all dependent on the reasons or cases for conversion into cash. Liabilities that are current in nature encompass all types of liabilities within a one-year maturity period. These include, trade creditors, bank overdrafts as well as payables. "In the process of running a business, an asset-liability mismatch may occur which may increase a firm's profitability in the short run but at a risk of its insolvency" (Sebastian, 2010), "while too much focus on liquidity will be at the expense of profitability" (Kesseven, 2006; Ben-Caleb, Olubukunola & Uwuigbe, 2013). Therefore, liquidity is basically centred on current assets for which the quick, cash and current ratios can be utilised in measuring.

#### 2.1.1.1 Cash Ratio

This ratio measures the adequacy of cash in terms of its ability to cover short term liabilities. It is expressed as: Cash and cash equivalents: Current liabilities.

#### 2.1.1.2 Current Ratio

This shows the relationship between current assets and current liabilities. It therefore elucidates the ability of a firm to meet its short-term maturing obligations based on the convertibility to cash of its current assets which may include stock, cash and cash equivalents, short tenured loans and the current liabilities include short tenured borrowings, overdrafts, payables, etc.

It is expressed thus:

Current Ratio = Current Assets: Current Liabilities

#### 2.1.1.3 Quick Ratio/Acid Test

The quick ratio is a derivative of the current ratio. The only dissimilar factor is the removal of stock or inventory from the equation. This ratio is quite selective as various industries tend to have dissimilar rates of turnover of inventory. Some companies are faster in turning inventory to cash than others hence a peer-to-peer comparism may be misleading.

It is expressed thus:

Quick ratio = Quick Assets: Current Liabilities

### 2.2 Financial Performance

Profitability is a measure of the excess of a company's revenues over its relevant expenses. This is the purest reflection of the firm's financial performance. "It is an evaluation of management's ability to create earnings from revenue-generating bases within an organization" (Ajanthan, 2013 and Sandhar & Janglani, 2013). "The concern of every firm lies with its profitability and ability to make returns from all the business activities of an organization, company, firms, or an enterprise. Therefore, management is interested in measuring the operating performance of the organization activities in terms of profitability. Hence, a low profit margin would suggest ineffective management and investors would be unable to decide whether to invest in the firm" (Ajanthan, 2013).

According to the Institute of Chartered Accountants of Nigeria,2009, "Profitability therefore shows how efficiently the management can make profit by using all the resources available in the market". "Profitability is considered as the rate of return on assets and a widely used financial measure of performance, if there will be an unjustifiable over investment in current assets, then this would negatively affect the rate of return on asset (Vishnani & Shah, 2007). "The primary goal of liquidity is to control current financial resources of a firm in such a way that a balance is reached between profitability of the firm and risk associated with that profitability" (Ricci & Vito, 2000). "Profitability is also determined by the capital structure, size, growth, market discipline, risk and reputation of a firm" (Agyei & Yeboah, 2011), "Profitability and liquidity are usually taken to be significantly associated such that poor current profitability may threaten liquidity and poor liquidity may threaten profitability" (Gill & Mathur, 2011). "It is related to the goal of shareholders' wealth maximization, and

investment in current assets is made only if an acceptable return is obtained" (Ibbotson, Chen, Kim & Hu, 2013; Sandhar & Janglani, 2013). Therefore, liquidity is a key aspect of corporate finance with significant influence on the measurement of a firm's growth and profitability.

### 2.2.1 Return on Assets (ROA)

Assets should be utilised optimally in income generation; hence Return on Assets (ROA) expresses the net income, which is the total income less expense and the average total assets. It shows how the assets of the firm are used in the income generation process.

## 2.3 Theoretical Review

This section highlights theoretical underpinnings from which the study is grounded, ranging from the pecking order theory and trade off theory.

### 2.3.1 Pecking order theory

Pecking order theory propounded by Donaldson in 1961 and modified by Stewart C. Myers and Nicolas Majluf in 1984 tries to capture the cost of asymmetric information and states that companies prioritize their sources of financing (from internal financing to equity) according to the law of least effort, or of least resistance preferring to raise equity as a financing means of 'last resort'. The implication is that debt is issued when internal financing has been exhausted. Thereafter, when the issuance of debt is no more practical or reasonable, equity financing can then be explored. Prior empirical studies buttress this: The Titman and Wessels (1985) study stated that "more profitable firms will tend to use less external financing thus providing support for pecking order theory"

This is consistent with Pecking order theory. A determinant of cash holding from the perspective of pecking order theory has been supported by other research. Sebastian (2010) examined liquidity and solvency and finds that "corporate liquidity and solvency interact through information, hedging, and leverage channels. The information and hedging channels increase equity-value of firms which helps to pay regular dividend and most importantly reduce volatility in cash flow". According to Owolabi, "smaller firms were not following this theory and as the smaller firms moved away from pecking order theory so, overall average moves further from the pecking order" (Owolabi; 2004).

### 2.3.2 Trade off theory

The trade – off theory, which was first suggested by Mayer in 1984, refers to the idea that a company chooses how much debt finance and how much equality finance to use by balancing the cost and benefits. The theory suggests that there is an optimum level of liquidity which firms earmark as the level at which the costs and benefits of holding cash do not in any way, pose a danger to their operations, bearing in mind that they stand to gain from the advantages of holding cash (needed to make payments, or cover short term obligations thereby saving transaction costs).

In the absence of proper liquidity management, the benefits of short-term investments are greatly reduced. Adversely, low liquidity can prevent the firm for taking advantage of profitable investment opportunities that may spring up as they are unable to respond effectively to her degrading credit as well as temporary capital requirements. This has

prompted the adoption of the pecking order theory and trade-off theory for this study, from the efficiency working management perspective to anchor the variables of the study because the theories establish a logical link between the corporate liquidity and profitability.

## 2.4 Empirical Review

Various Local and International researchers have performed empirical studies on the subject of the interrelationship between liquidity and financial performance. A few of which are outlined below:

### 2.4.1 Cash Ratio and Return on Asset

Ben-Caleb, Olubukunola, and Uwuigbe (2013) investigated the relationship between liquidity and profitability, the analysis was based on a sample of 30 manufacturing companies listed on the Nigeria Stock Exchange for the period 2006-2010. The result suggests that current ratio and liquid ratio are positively associated with profitability while cash conversion period is negatively related with profitability of manufacturing companies in Nigeria. The association in all the cases was however, statistically insignificant, indicating low degree of influence of liquidity on the profitability of manufacturing companies. The study concluded that liquidity and its management determines to a great extent the growth and profitability of a firm. This is because either inadequate liquidity or excess liquidity may be injurious to the smooth operations of the organization. Hence, the overall state of liquidity should be improved by establishing more realistic credit policy which would engender shorter cash conversion period (CCP), hence have a favourable impact on the profitability of the company.

### 2.4.2 Current Ratio and Return on Asset

Eljelly (2004) elucidated that efficient liquidity involves planning and controlling current assets and currents liabilities in such a manner that eliminates the risk of inability to meet due short-term obligations, avoiding the excision of investment in these assets. The relationship between profitability and liquidity was examined, as measured by current ratio and cash gap (cash conversion cycle) on a sample of joint stock companies in Saudi Arabia using correlation and regression analysis. The study found that the cash conversion cycle was of more importance as a measure of liquidity than the current ratio that effect on profitability. The size variable was found to have significant effect on profitability at the industry level. The results were stable and had important implication for liquidity management in various Saudi companies. First, it was clear that there was a negative relationship between profitability and liquidity indicators such current ratio and cash gap in the Saudi sample examined. Second, the study also revealed that there was great variation among industries with respect to the significant measure of liquidity.

### 2.4.3 Quick Ratio and Return on Asset

Falope and Ajilore (2009) aimed to provide empirical evidence about the effects of working capital management on profitability performance for a panel made up of a sample of Nigerian quoted non-financial firms for the period 1996-2005. The study utilized panel data econometrics in a pooled regression, where time-series and cross-sectional observations were combined and estimated. The study found a significant negative relationship between net operating profitability and the average collection period, inventory turnover in days, average payment period and cash conversion cycle for a sample of fifty Nigerian firms listed on the

Nigerian Stock Exchange. Furthermore, the study found no significant variations in the effects of working capital management between large and small firms. These results suggest that managers can create value for their shareholders if the firms manage their working capital in more efficient ways by reducing the number of day's accounts receivable and inventories to a reasonable minimum.

## 3. Methodology

An ex-post factor research design was adopted for this study. Data collection sources, population, sample, sampling technique method, instruments of data collection used were examined by this design. The population of the study is made up quoted consumer goods companies on the floor of the Nigerian stock exchange from years 2009 to 2020. A simple random sampling technique was employed for this study with a potential for each member of the population to be equally selected for testing as a subject.

The method adopted in this study required the use of empirical analysis of multiple regression models which used Ordinary Least Square techniques.

The analysis of the model was done as follows:

- The statistical description of the variables was performed
- Evaluation of the model to ascertain whether the effects, on an individual basis was random or fixed
- Estimation of the model using a panel estimation technique.

The multiple regressions were run through the use of E-VIEW 10 statistical package to analyse the variables used. Multiple regression was chosen due to its greater quality in defining the variables' variability in this study.

Other parameters include:

- Level of significance set at 5%,
- Critical value (n-1) (two-tail test)
    - N= number of observations
    - 1= constant

The decision rule for testing the hypothesis was to accept or reject the null hypothesis if the critical value is greater or less than the calculated value.

The following models were estimated

**Main Model:** $\mathbf{ROA_{it} = \beta_0 + \beta_1 CAR_{it} + \beta_2 CR_{it} + \beta_3 QR_{it} + e_{it}}$

**Model 1:** $\mathbf{ROA_{it} = \beta_0 + \beta_1 CAR_{it} + e_{it}}$

**Model 2:** $\mathbf{ROA_{it} = \beta_0 + \beta_1 CR_{it} + e_{it}}$

**Model 3:** $\mathbf{ROA_{it} = \beta_0 + \beta_3 QR_{it} + e_{it}}$

Where:

$ROA_{it}$ = Return on Asset of firm i at time t

$CAR_{it}$ = Cash ratio of firm i at time t

$CR_{it}$ = Current ratio of firm i at time t

$QR_{it}$ = Quick ratio of firm i at time t

$\beta 0$ = Constant term
$\beta_1$-$\beta_3$ = Coefficient of the parameter estimates
$e_{it}$ = Error Term of firm i at time t

The a-priori expected was conducted to enable the researcher to examine the magnitude and size of the parameters estimated, guided by economic theory, the evaluation is done to ascertain if the parameter estimates conforms to estimates. Hypothetically it is expected that cash ratio, current ratio and quick ratio will positively affect financial performance. The coefficient was therefore expected to be positively significant.

## 4. Results and Discussion

**Table 4.1**

*Summary of descriptive statistics*

| | **ROA** | **QR** | **CR** | **CAR** |
|---|---|---|---|---|
| Standard Deviation | 0.10579 | 0.51985 | 0.76013 | 0.27974 |
| Skewness | (0.01938) | 1.27807 | 2.03660 | 2.29453 |
| Kurtosis | 2.24815 | 4.66690 | 10.39417 | 8.47156 |
| Minimum | (0.02789) | 0.18999 | 0.39257 | 0.03322 |
| Maximum | 0.42191 | 2.71712 | 5.13703 | 1.37602 |
| Median | 0.20445 | 0.71773 | 1.12008 | 0.18730 |
| Mean | 0.20111 | 0.83432 | 1.29378 | 0.28712 |
| | | | | |
| Jarque-Bera | 1.65310 | 27.16104 | 207.85510 | 148.74240 |
| Probability | 0.43756 | 0.00000 | - | - |
| | | | | |
| Sum | 14.07781 | 58.40228 | 90.56475 | 20.09865 |
| Sum Sq. Dev. | 0.77216 | 18.64657 | 39.86814 | 5.39962 |
| | | | | |
| Observations | 84 | 84 | 84 | 84 |

*The data descriptions indicated above are based on the standard deviations, skewness, Jarque- Bera, kurtosis, minimum, maximum, median and mean of sampled population quoted on the Nigeria Stock Exchange. The Underlying Data is extracted from the published annual reports of these firms.*

**Table 4.1** shows the descriptive statistics for Return on Assets (ROA), Quick Ratio (QR), Current Ratio (CR) and Cash Ratio (CAR). The mean indicates the average value of the series (ROA, QR, CR and CR) which are 0.201112, 0.834318, 1.293782 and 0.287124respectively.

The minimum and maximum values indicate signs of significant disparities as shown by the difference between two values for the proxies under consideration over the years of study. It further shows that there is a large variance between the minimum and maximum values showing from the great differences between them for variables under consideration. As indicated in the table above the spread of the series is represented by the standard deviation. The lower the value, the lower the deviation of the variables from the mean and the higher the value, the higher the deviation of the variables from the mean. There is a negative

skewness of the ROA variables, indicating that the left tail is extreme. The skewness of the variable QR, CAR and CR is positive indicating a right tail extreme. For Kurtosis, the nature of the variables ROA is platykurtic as their values is less than 3 while the variable QR, CAR and CR are leptokurtic in nature since the value is greater than 3. Theoretically, the Jarque-Bera statistic is distributed as with x2 degrees of freedomunder the null hypothesis of a normal distribution. The probability based on the table above, showed that the variables QR, CAR and CR are not distributed normally because the p-value less than 0.05; whereas the probability showed that the variable ROA is distributed normally because of p-value greater than 0.05.

### 4.2 Analysis and Testing of Hypotheses

#### 4.2.1 Testing of Hypothesis One

Research Objective One: To assess the effect of cash ratio on return on asset of quoted consumer goods companies in Nigeria.

Research Question One: What is the effect of cash ratio on return on asset of quoted consumer goods companies in Nigeria?

**Research Hypothesis One:**

$H_{o1}$: Cash ratio has no significant effect on return on asset of quoted consumer goods companies in Nigeria.

**Table 4.2.1: Regression Estimate for Model One**

Dependent Variable: ROA
Method: Panel Least Squares
Date: 09/05/22 Time: 19:13
Sample: 2009 2020
Periods included: 12
Cross-sections included: 7
Total panel (balanced) observations: 84

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 0.197243 | 0.018307 | 10.77390 | 0.0000 |
| CAR | 0.013475 | 0.045829 | 0.294021 | 0.7696 |

| | | | |
|---|---|---|---|
| R-squared | 0.001270 | Mean dependent var | 0.201112 |
| Adjusted R-squared | -0.013418 | S.D. dependent var | 0.105786 |
| S.E. of regression | 0.106494 | Akaike info criterion | -1.613308 |
| Sum squared resid | 0.771181 | Schwarz criterion | -1.549065 |
| Log likelihood | 58.46577 | Hannan-Quinn criter. | -1.587790 |
| F-statistic | 0.086448 | Durbin-Watson stat | 0.299056 |
| Prob(F-statistic) | 0.769638 | | |

**Source: E – View 9.0 Output**

**MODEL ONE**

ROA= f (CAR) ---------- function 1

ROA = $\beta_0$+ $\beta_1$ CAR + $\mu$ ……Model 1

ROA = 0.197243+ 0.013475 CAR + $\mu$ ……Model 1

**Interpretation of Result**

**Coefficient**

The coefficient of the independent variable cash ratio is positive. This shows that there is a weak direct relationship between cash ratio and return on assets of quoted consumer goods companies in Nigeria. That is a unit increase in cash ratio would cause a 0.0134 increase in return on assets of quoted consumer goods companies in Nigeria.

**R-Squared**

The overall coefficient of determination of $R^2$, which is the explanatory power of the model 0.12%. This implies that within the model context, the independence of cash ratio is responsible for 0.12% variations in return on asset while the remaining 99.88% is explained by other factors that can affect on the dependent variable outside the model.

**T-Statistics**

At the level of significance of 0.05, the p-value of T-statistic 0.294021 is 0.7696, which is greater than 0.05 and this indicates that there is no significant relationship between cash ratio and return on assets of quoted consumer goods companies.

**Decision**

**Test Hypothesis One:** The null hypothesis is accepted while the alternative hypothesis is rejected.

### 4.2.2 Testing of Hypothesis Two

**Research Objective Two:**

To identify how the current ratio of quoted consumer goods companies in Nigeria affect its return on asset.

**Research Question Two:**

How does the current ratio of quoted consumer goods companies in Nigeria affect its return on asset?

**Research Hypothesis Two:**

$H_{o1}$: Current ratio of quoted consumer goods companies in Nigeria has no significant effect on their return on asset.

**Table 4.2.2: Regression Estimate for Model Two**

Dependent Variable: ROA
Method: Panel Least Squares
Date: 09/05/22 Time: 21:13
Sample: 2009 2020
Periods included: 12

Cross-sections included: 7
Total panel (balanced) observations: 84

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 0.217350 | 0.025175 | 8.633576 | 0.0000 |
| CR | -0.012551 | 0.016808 | -0.746725 | 0.4578 |

| | | | |
|---|---|---|---|
| R-squared | 0.008133 | Mean dependent var | 0.201112 |
| Adjusted R-squared | 0.006453 | S.D. dependent var | 0.105786 |
| S.E. of regression | 0.106127 | Akaike info criterion | -1.620204 |
| Sum squared resid | 0.765881 | Schwarz criterion | -1.555961 |
| Log likelihood | 58.70713 | Hannan-Quinn criter. | -1.594686 |
| F-statistic | 0.557599 | Durbin-Watson stat | 0.325307 |
| Prob(F-statistic) | 0.457803 | | |

**Source: E – View 9.0 Output**

**MODEL TWO**

ROA= f (CR) ---------- function 2

ROA = $\beta_0$+ $\beta_1$ CR + $\mu$ ……Model 2

ROA = 0.2173 -0.0125 CR + $\mu$ ……Model 2

**Interpretation of Result**

**Coefficient**

The coefficient of the independent variable current ratio is negative. This shows that there is a weak inverse relationship between current ratio and return on assets of quoted consumer goods companies in Nigeria. This translates to the fact that a unit increase in current ratio would cause a 0.0125 decrease in return on assets of quoted consumer goods companies in Nigeria.

**R-Squared**

The overall coefficient of determination of $R^2$, which is the explanatory power of the model 0.6%. This implies that within the model context, the independence of current ratio is responsible for 0.6% variations in return on asset while the remaining 99.4% is explained by other factors that can affect on the dependent variable outside the model.

**T-Statistics**

At the level of significance of 0.05, the p-value of T-statistic -0.7467 is 0.4578, which is greater than 0.05 and this indicates that there is no significant relationship between current ratio and return on assets of quoted consumer goods companies.

**Decision**

**Test Hypothesis Two:** The null hypothesis is accepted while the alternative hypothesis is rejected.

### 4.2.3 Testing of Hypothesis Three

**Research Objective Three:**

To ascertain the effect of quick ratio on return on asset of quoted consumer goods companies in Nigeria.

**Research Question Three:**

What is the effect of quick ratio on return on asset of quoted consumer goods companies in Nigeria?

**Research Hypothesis Three:**

$H_{o1}$: Quick ratio has no significant effect on return on asset of quoted consumer goods companies in Nigeria.

**Table 4.2.3: Regression Estimate for Model Three**

Dependent Variable: ROA
Method: Panel Least Squares
Date: 09/05/22 Time: 21:19
Sample: 2009 2020
Periods included: 12
Cross-sections included: 7
Total panel (balanced) observations: 84

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 0.203976 | 0.024206 | 8.426527 | 0.0000 |
| QR | -0.003434 | 0.024674 | -0.139159 | 0.8897 |

| | | | |
|---|---|---|---|
| R-squared | 0.000285 | Mean dependent var | 0.201112 |
| Adjusted R-squared | 0.014417 | S.D. dependent var | 0.105786 |
| S.E. of regression | 0.106546 | Akaike info criterion | -1.612322 |
| Sum squared resid | 0.771941 | Schwarz criterion | -1.548079 |
| Log likelihood | 58.43127 | Hannan-Quinn criter. | -1.586804 |
| F-statistic | 0.019365 | Durbin-Watson stat | 0.307837 |
| Prob(F-statistic) | 0.889736 | | |

**Source: E – View 9.0 Output**

**MODEL THREE**

ROA= f (QR) ---------- function 3
$ROA = \beta_0 + \beta_1 QR + \mu$ ……Model 3
ROA = 0.2039 -0.0034 QR + μ ……Model 3

**Interpretation of Result**

**Coefficient**

The coefficient of the independent variable quick ratio is negative. This shows that there is a weak inverse relationship between quick ratio and return on assets of quoted consumer goods

companies in Nigeria. That is a unit increase in quick ratio would cause a 0.0034 decrease in return on assets of quoted consumer goods companies in Nigeria.

**R-Squared**

The overall coefficient of determination of $R^2$, which is the explanatory power of the model 1.44%. This implies that within the model context, the independence of quick ratio is responsible for 1.44% variations in return on asset while the remaining 98.56% is explained by other factors that can effect on the dependent variable outside the model.

**T-Statistics**

At the level of significance of 0.05, the p-value of T-statistic -0.1391 is 0.8897, which is greater than 0.05 and this indicates that there is no significant relationship between quick ratio and return on assets of quoted consumer goods companies.

**Decision**

**Test Hypothesis Three:** The null hypothesis is accepted while the alternative hypothesis is rejected.

**4.2.4 Aggregate Model**

**Main Research Objective:**

To examine the effect of liquidity on the financial performance of quoted consumer goods companies in Nigeria

**Table 4.2.4: Regression Estimate for Aggregate Model**

Dependent Variable: ROA
Method: Panel Least Squares
Date: 10/05/22 Time: 09:10
Sample: 2009 2020
Periods included: 12
Cross-sections included: 7
Total panel (balanced) observations: 84

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 0.215399 | 0.025418 | 8.474266 | 0.0000 |
| QR | 0.068167 | 0.079812 | 0.854093 | 0.3961 |
| CR | -0.057541 | 0.043095 | -1.335233 | 0.1864 |
| CAR | 0.011442 | 0.079349 | 0.144202 | 0.8858 |

| | | | |
|---|---|---|---|
| R-squared | 0.032714 | Mean dependent var | 0.201112 |
| Adjusted R-squared | 0.011253 | S.D. dependent var | 0.105786 |
| S.E. of regression | 0.106380 | Akaike info criterion | -1.588156 |
| Sum squared resid | 0.746900 | Schwarz criterion | -1.459670 |
| Log likelihood | 59.58545 | Hannan-Quinn criter. | -1.537120 |
| F-statistic | 0.744055 | Durbin-Watson stat | 0.329285 |
| Prob(F-statistic) | 0.529642 | | |

**Source: E – View 9.0 Output**

**AGGREGATE MODEL**

ROA = f (QR, CR, CAR)

ROA = $\alpha_1$+ $\beta_1$QR + $\beta_2$CR + $\beta_3$CAR + $\mu$ …… Aggregate Model

ROA = 0.2153 +0.0681QR -0.0575CR +0.011CAR + $\mu$ …… Aggregate Model

**Interpretation of Result**

**Coefficient**

The coefficient of the independent variable quick ratio is positive. This shows that there is a direct relationship between quick ratio and return on assets of quoted consumer goods companies in Nigeria. That is a unit increase in quick ratio would cause a 0.0681 increase in return on assets of quoted consumer goods companies in Nigeria.

The coefficient of the independent variable current ratio is negative. This shows that there is a weak inverse relationship between current ratio and return on assets of quoted consumer goods companies in Nigeria. That is a unit increase in current ratio would cause a 0.0575 decrease in return on assets of quoted consumer goods companies in Nigeria.

The coefficient of the independent variable cash ratio is positive. This shows that there is a weak direct relationship between cash ratio and return on assets of quoted consumer goods companies in Nigeria. That is a unit increase in cash ratio would cause a 0.011 increase in return on assets of quoted consumer goods companies in Nigeria.

**Adjusted R-Squared**

The overall coefficient of determination of $R^2$, which is the explanatory power of the model 1.1253%. This implies that within the model context, the independence of liquidity is responsible for 1.1253% variations in return on assets while the remaining 98.8747% is explained by other factors that can affect on the dependent variable outside the model.

**F-Statistics**

At the level of significance of 0.05, the p-value of F-statistic 0.744 is 0.5296, which is greater than 0.05 and this indicates that there is no significant relationship between liquidity and performance of quoted consumer goods companies in Nigeria.

**Decision**

The null hypothesis is rejected while the alternative hypothesis is accepted.

**4.3 Discussion of Findings**

In the first model, the coefficient of the independent variable cash ratio is positive. This shows that there is a weak direct relationship between cash ratio and return on assets of quoted consumer goods companies in Nigeria. That is a unit increase in cash ratio would cause a 0.0134 increase in return on assets of quoted consumer goods companies in Nigeria. At the level of significance of 0.05, the p-value of T-statistic 0.294021 is 0.7696, which is greater than 0.05 and this indicates that there is no significant relationship between cash ratio and return on assets of quoted consumer goods companies. This is corroborated by the findings of Ajanthan (2013); Egbideet al. (2013) and Saleem and Rehman (2011) who in the study of their

relationship between liquidity and profitability disclosed that the relationship between profitability and cash ratio is positive.

In the second model, the coefficient of the independent variable current ratio is negative. This shows that there is a weak inverse relationship between current ratio and return on assets of quoted consumer goods companies in Nigeria. That is a unit increase in current ratio would cause a 0.0125 decrease in return on assets of quoted consumer goods companies in Nigeria. At the level of significance of 0.05, the p-value of T-statistic -0.7467 is 0.4578, which is greater than 0.05 and this indicates that there is no significant relationship between current ratio and return on assets of quoted consumer goods companies. This is corroborated by the findings of who have assessed and revealed that there is no existing significant relationship profitability and current ratio.

In the third model, the coefficient of the independent variable quick ratio is negative. This shows that there is a weak inverse relationship between quick ratio and return on assets of quoted consumer goods companies in Nigeria. That is a unit increase in quick ratio would cause a 0.0034 decrease in return on assets of quoted consumer goods companies in Nigeria. At the level of significance of 0.05, the p-value of T-statistic -0.1391 is 0.8897, which is greater than 0.05 and this indicates that there is no significant relationship between quick ratio and return on assets of quoted consumer goods companies. This is corroborated by the findings of Kaur and Silky (2013) and Malik and Ahmed (2013) who revealed that the association between quick ration and ROA was negative.

In the aggregate model, the coefficient of the independent variable quick ratio is positive. This shows that there is a direct relationship between quick ratio and return on assets of quoted consumer goods companies in Nigeria. That is a unit increase in quick ratio would cause a 0.0681 increase in return on assets of quoted consumer goods companies in Nigeria. The coefficient of the independent variable current ratio is negative. This shows that there is a weak inverse relationship between current ratio and return on assets of quoted consumer goods companies in Nigeria. That is a unit increase in current ratio would cause a 0.0575 decrease in return on assets of quoted consumer goods companies in Nigeria. The coefficient of the independent variable cash ratio is positive. This shows that there is a weak direct relationship between cash ratio and return on assets of quoted consumer goods companies in Nigeria. That is a unit increase in cash ratio would cause a 0.011 increase in return on assets of quoted consumer goods companies in Nigeria. At the level of significance of 0.05, the p-value of F-statistic 0.744 is 0.5296, which is greater than 0.05 and this indicates that there is no significant relationship between liquidity and performance of quoted consumer goods companies in Nigeria.

**4.4 Implication of Findings**

It has therefore been established that the relationship between liquidity and profitability of quoted consumer goods companies in Nigeria appears to be insignificant. The study is testament to the trade-off theory of liquidity and profitability. An increase in liquidity will cause a commensurate diminishing movement in the asset utilization capabilities of the firm. This means that a company with high liquidity will have resources tied up as cash which is not invested in their business and this doesn't allow for improved profitability.

## 5. Conclusion and Recommendations

This research has examined liquidity and the profitability of quoted consumer companies in Nigeria using seven companies that represent the entire population. The study further provided an insight as to the extent to which each of the independent variables affects the dependent variable through descriptive statistics and provides an assertion of the extent to which the variations in the dependent variable are caused by the independent variables covered in the models as depicted by the coefficient of determination ($R^2$).

Based on the model, all the proxies of liquidity had insignificant influence on profitability of quoted consumer companies in Nigeria. Even with the Covid Year (2020) included as part of the data sets, liquidity still had little to no influence on profitability. Amongst the pertinent issues noted in 2020 as a result of the pandemic, the biggest effect was on the issue of supply chains in global economies. Consumer goods companies all over the world were the hardest hit as a reduction in production had an adverse effect on the population who were in lockdown. Companies were forced to come up with unique and innovative ways of sourcing raw materials as seaports and airports were closed, a logistic nightmare. Except for companies involved in the production of essential goods, the lockdown directive by the FGN and select State Governments (Lagos inclusive) resulted in the discontinuation of most production activities yet an attendant increase in demand was noted for essential goods. Although a one off based on the study, year 2020 saw a general and expected fall in cash flows resulting in the exclusion, general reduction or rescheduling of certain costs, especially administrative and overhead costs not linked to the production process.

Premised on the above, the study therefore concludes that an insignificant relationship exists between liquidity and the profitability of quoted consumer companies in Nigeria. This means that a change in the liquidity of consumer goods companies would not influence their profitability.

It is therefore recommended that

1. Companies should focus on improving their rates of asset utilization in order to further expand and accelerate performance metrics
2. Decision makers should channel resources towards ensuring that excess cash is reinvested to maintain a maximised profitability trajectory.
3. Efficient utilisation of resources should be paramount to management. This will positively impact profitability.
4. Decision makers including Top level Management should adopt good and efficient liquidity management techniques for overall performance improvement.

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