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Liquidity Management and Profitability of Consumer and Industrial Goods Companies in Nigeria

Dr. Emmanuella Okpiabhele

Associate Lecturer, Department of Business Administration,
University of Benin, Benin City, Edo State, Nigeria

Dr. Andrew Ehiabhi Tafamel

Associate Professor, Department of Business Administration,
University of Benin, Benin City, Edo State, Nigeria

Abstract:

This study evaluated the relationship between liquidity management and profitability of consumer and Industrial goods companies listed in Nigerian stock exchange covering the period of ten (10) years. Descriptive statistics and correlation were carried out using secondary data. The variables used in measuring liquidity management were current ratio (CR), quick ratio (QR) and growth ratio (GR) while profitability served as proxy by return on assets (ROA). Ordinary least square regression was carried out at 0.05 level of significance. From the findings of the analysis, it was observed that current ratio (CR) showed an insignificant and negative relationship with profitability while quick ratio (QR) and growth ratio (GR) revealed a significant and positive relationship with profitability. It was therefore recommended that management of sampled companies should find an optimal balance between liquidity and profitability as it helps companies achieves growth and increase in profits.

Keywords: Liquidity management, Profitability, Return on Assets

1. Introduction

The survival of a company's business depends on the extent of liquidity which should be either sufficient or insufficient (Bhunja, 2011). Though the main focus of most companies is profit maximization, the importance and management of liquidity which plays a vital role for successful functioning of a business should not be ignored. It is believed that liquidity and profitability are conflicting goals (Egbide, Olubukunola & Uwuigbe, 2013). Priya and Nimalathan (2013) stated that liquidity management is regarded as one of the notions that is receiving more attention globally with the present financial state of the world economy. The aim of any company's business managers is to develop strategies of managing their daily operations in order of increase in profitability and wealth of shareholders.

In relating liquidity management and profitability concepts, liquidity is used in judging the ability of how a company meets its short-term obligations while profitability is judge based on the utilization of a company's assets (Ehiedu, 2014). Liquidity management and profitability is considered to be a very important elements not only for the survival of a company's business but also for the growth of a business which instigates managers creating various means of managing and sustaining businesses through daily operations (Ngira, Oluoch & Kalui, 2014; Ware, 2015).

In this present age of competitive market environment, economic liberations and globalization, businesses need to be secured and sustained. According to Priya and Nimalathan (2013) the major issue of liquidity management is the inability to make sufficient profit and lack of liquidity. In order to avoid such issues, managers or management of a company needs to operate a well-defined policy amidst reputable procedures for monitoring, managing and measuring of liquidity (Kimondo, 2014; Ware, 2015).

Several studies have been carried out in examining the relationship between liquidity management and profitability and these have remained a source of controversy by researchers thereby not making a proper conclusion on the effects of liquidity on profitability. In Nigeria, it was observed that studies carried out on liquidity management and profitability are limited especially to the industrial goods sector that serves as one of the backbones of economic growth. Also, Methodologies used varies this prompt the researcher to use panel data method in establishing the relationships of variables used in the study to serves as a contributing factor to existing literatures.

1.1. Research Questions

This study seeks to provide answers to the under listed questions:

- What is the relationship of current ratio and profitability?
- What is the impact of quick ratio on profitability?
- Is there any relationship between growth ratio and profitability?

1.2. Objectives of the Study

The aim of this study is to evaluate the relationship between liquidity management and profitability of consumer and industrial goods companies in Nigeria. The specific aims are to;

- Investigate The Relationship Between Current Ratio And Profitability;
- Examine The Impact Of Quick Ratio On Profitability; And
- Ascertain The Relationship That Exists Between Growth Ratio And Profitability.

2. Literature Review

2.1. Definition of Profitability

Profitability is defined as the ability to create profits from business operations of a company where it measures the efficiency of management in use of the company's assets thereby adding value to the business (Owolabi & Obida, 2012). Measurement of profitability is important for sustainability which enables businesses to have better knowledge of their past, present and future operating performances that will help in taking restricted measures when issues may arise (Ehiedu, 2014). Alshatti (2015) opined that profitability is the capability of a company to produce revenue excessively bearing in mind the expenses acquired in the process. It refers to the link between the profits and investments generated as well as its use in measuring the effectiveness and efficiency of managing a company's business (Tulsian, 2015).

Profitability can be referred to as the final measurement of economic success attained by a company in relation to capital investment (Ware, 2015). Thus, this study intends to measure profitability with Return on Assets (ROA) in evaluating the relationship of liquidity management and profitability.

2.1.1. Return on Assets (ROA)

Return on assets indicates how profitable a business is related to its assets. It explains how well a business is able to utilize its assets to generate earnings. Consequently it expresses the net income as a percentage earned by a firm of its total assets available for use which suggests that a firm with higher amounts of assets should be able to earn higher levels of income by measuring the capability of management to earn a return on the firm's assets. It is computed by dividing net income plus interest expenses by the firm's average investments of assets during a periodic year (Owolabi & Obida, 2012). Nyabwanga, Ojera, Otieno and Nyakundi (2013) stated that it must be positive with a standard figure of 10% - 12% which means the higher the ROA the better.

In agreement, Khidmat and Rehman (2014) stated that ROA is measured as the ratio of profits which is generated to the total assets under the supervision of management. Agha (2014) stated that profitability ratio formula is calculated as total annual net income divided by the average total assets during a financial year and it explains the progress and performance of a company's business. Virkkala (2015) explains further that it measures the company's ability to create earnings from its capital tied up in its balance sheet, putting in consideration the deduction of interest income before subtracting financial expenses.

Furthermore, Donkor (2015) explained how effective and efficient a company manages its available resources to generate profit and calculates the percentage of a company's profit per dollar of assets. Sarwat (2017) described ROA as the ratio of net income to total assets of a firm's business which measures the efficiency of the business. Thus, ROA reflects the net impacts of management decisions and actions alongside with the business environment of a company or firm (Hanaffie, 2017; Klyuchankin, 2017).

2.2. Definition and Concept of Liquidity Management

Liquidity management deals with the plan and control of a company's current assets and liabilities thereby removing or reducing the risk of the company inability to meet its short term duty by avoiding extreme investments of assets which also serves as a powerful instruments in deciding the future investments and the company's financial health (Agha, 2014; Oyadonghan & Bingilar, 2014; Khidmat & Rehman, 2014; Venkateswarlu & Reddy, 2015; Ezejiofor, Adigwe & John-Akamelu, 2015). Asian (2015) highlighted some factors that affect the effective management of liquidity such as size and nature of the company's business, credit conditions, expansion and growth of activities of the company's operating cycle, turnover of circulating capital, changes in price level and efficiency of operating cycle. Liquidity ratio is employed in comparing different areas of current assets and liabilities (Kung'u, 2015). Dahiyat (2016) described liquidity as the balance of cash assets or converted cash current assets and liabilities.

Recently, liquidity management has been a concerned area of financial management to companies because of the uncertain nature regarding the future and its current state in the world's economy, which makes management creates different strategies for managing their daily operational duties in order to meet with the obligations and increase in shareholder's wealth and profitability (Orshi, 2016; Orshi & Yunusa, 2016). According to Ofoegbu, Duru and Onodugo (2016) liquidity management involves the coordination of a company's different sources of funds and the use of the funds to ensure that its current requirements are met as at when due without any loss of financial obligations. It also supports in the ability to manage the company's daily operations without any interference (Etale & Bingilar, 2016) and a company creates good image to its creditors and customers by being able to meet its obligations (Akenga, 2017). Liquidity management as one of the main determinants of a company's market value is very important thus, it cannot be ignored because of its significant role in the success of an operating and functional company business (Yusoff, 2017; Shrestha, 2018).

2.2.1. Current Ratio (CR)

Current ratio evaluates assets that will be converted to cash within a specific period usually a year with due obligations for outflow within the same period (Wood & Sangster, 2010). Current ratio measures the overall liquidity which is most used in analyzing short-term liquidity of a company. A high current ratio implies that the company has liquidity and has the capability to pay off its current obligations as at when due (Bhunja, 2011). According to Bolek and Wilinski (2012) current ratio offer a broad perspective of a company liquidity. It describes to what extent current assets covers a company's short-term liabilities. Furthermore, it is calculated as current asset/current liability (Gitman & Zutter, 2012). Ware (2015) stated that current ratio is referred to a company's market liquidity and the ability to meet the demands of creditors. Also it is considered that such companies have a good short-term financial strength but if current liabilities exceed current assets, then it means that the company have issues meeting up with its short-term, thus when the current ratio is very high, then such company will not be able to utilize its short-term financing strength or current assets efficiently.

As described by Noor & Lodhi, (2015), it is also a financial tool used to measure the position of liquidity and profitability of a company and how it can increase the company's profit through investment with the use of effective and efficient policies and strategies to solve issues of liquidity problems. Current ratio can be used for tough measurement of a company's financial health. Depending on the allocation of a company's assets, a high ratio may show that the company is not using its current assets effectively or not properly managed (Akenga, 2017).

2.2.2. Quick Ratio (QR)

Amuzu (2010) stated that quick ratio is the amount of liquidity assets that are available as an access to balance the current debt which is the sum of cash and accounts received divided by current liabilities (Cash + Accounts Receivable / Current Liabilities), and it is always maintained by a healthy company at 1.0 or higher. By establishing a fact between quick or liquid and current liabilities, it is a known statement that an asset is liquidated that is, if it can be converted to cash without a loss of value which is also referred to as acid test ratio (Shahid, Abdul, Hassan & Ahmad, 2014). Nizigiyimana (2014) explained that it is similar to current ratio as it gives an idea of the ability of a company in meeting its short-term requirements with its short-term assets. Atieh (2014) defined quick ratio as the ratio which measures the immediate liquidity position of a company which relates most liquid assets to current liabilities. Also, it indicates the degree to which a company is able to pay back its short-term liabilities from extremely liquid assets and it is calculated as; Quick Ratio = Current Assets - (Inventory + Prepayments)/Current Liabilities (Seyed, 2015). When the ratio is 0.5 it suggests that a company is able to settle half of its current debt or liabilities without relying on shares or ending inventory (Hanaffie, 2017).

2.2.3. Growth Ratio

Companies with higher future growth rate have the opportunity of using more of equity in finance because a company's higher leverage leads to profitable investment interest (Myers, 1977). Furthermore, companies with high growth lead to high debt ratios (Marsh, 1982). A company with a better growth rate means increase in profitability which depends on the economy of both the internal and external conditions of the company (Abor, 2005; Halim, 2005). The growth of a company creates impact of cash flow due to either effective change decrease or increase of the company's business (Kusumajaya, 2011). Growth can be achieved through pricing strategies and the measurement of growth rate is the annual percentage changes of company related to sales revenue over a period of time which influences the capital structure of a company (Kaguri, 2013).

According to Nguyen (2015) companies with low or negative growth rate, employs debt to limit their agency costs while companies with high growth rate do generates high cash-flows for future purposes and the company's high market capitalization also indicates investors' interest which is influenced by investment opportunities through indicators of the company's stock market (Purwohandoko, 2017). Furthermore, the growth rate often times needs finance by long term debt which increases the risk and mechanism of such companies with high leverage perceived as being risky. Also, during the period of economic downturn, companies must pay its debts irrespective of negative results in cash-flows and sales (Maja, Ivica & Marijana, 2017).

2.3. Relationship between Selected Variables and Profitability (ROA)

2.3.1. Current Ratio and Profitability

Current ratio as proxy for liquidity has a significant relationship with profitability (ROA) which implies that when there is increase in current ratio, profitability will drastically increase (Ajanthan 2013). From the correlation analysis carried out by Nizigiyimana (2014) current ratio has a strong relationship with profitability which was measured by ROA. Ehiedu (2014) also have a similar result because of inactive funds when firms generate profits and reduce costs (Devraj, 2014). But studies carried out by Irawan and Faturohman (2015) shows that the result was negative when linking current ratio and profitability (ROA). Current ratio significantly affected financial performance which suggests that companies should lighten up in credit sales policies and collection turnover system in a strategic manner that will be easy to access by customers (Rizwan, 2016; Bala, Garba & Ibrahim, 2016). Companies are encouraged from another study to increase the cash-flow by reducing customer's repayment system or employ experts in managing company's receivables (Asete & Kung'u, 2018).

2.3.2. Quick Ratio and Profitability

The findings from Ajanthan (2013) showed that quick ratio was positively related to profitability which means that liquidity of the sample firm has straight relationship with profitability. Nizigiyimana (2014) also stated that quick ratio had a strong connection with profitability. Irawan and Faturhman (2015) revealed a negative and weak relationship between quick ratio and profitability. Since most results confirmed positive relationship between quick ratio and profitability, it was suggested that companies should seek for an optimal balance between liquidity and profitability because it assists in increasing profitability (Etale & Bingilar, 2016; Bala, Garba & Ibrahim, 2016; Asete & Kung'u, 2018).

2.3.3. Growth Ratio and Profitability

From the findings of Tornyiva (2013) there was a positive connection which proves that sampled companies should depend more on debt for increased growth. Growth ratio measures the ability of a company being able to maintain its position for economic growth (Fahmi, 2014). A company's growth logically requires large amount of working capital though it is not easy to describe the rules regarding the relationship between growth of a company and its working capital but the recognition for the need to increase working capital funds may lead to growth of a firm business (Eziejiofor, Adigwe & Akamelu-John, 2015). The growth of a company is determined by profitability which is considered by increased reduction of costs and high returns on investments (Njuguna, 2015). Putri and Fidiana (2017) studies showed that growth does not positively affect company value but, Deli and Kurnia (2017) stated that growth affects company value both significantly and positively which gives investors opportunity to invest due to the increased growth rate (Fajaria, 2018).

2.4. Theoretical Review and Framework

2.4.1. Contingency Theory

This theory signifies a rich unified managerial theory that involves a company's decision making and structure which reflect the company's situation. To avoid less performance, the company becomes shaped by contingencies and there is always a relationship between the company's relating characteristics and contingencies (Burns & Stalker, 1961; Pugh, Hickson, Hinnings & Turner, 1969). Contingency theory is a behavioural theory which gains its roots from the sociological theory view of a firm structure in relation to its environment (Fridman & Ostman, 1989). This theory basic assumptions stated there is no best way of managing, organizing and making of company's decisions and actions or activities which are depended on both the internal and external factors (Donaldson, 2001; Lawrence & Lorsch, 2004). Tingbani (2015) opined that in contingency theory, companies need to use their own structures and system to fit in with other contingencies or situations of its external environment to improve profitability. Thus, this theory offers a meaningful way of merging the relationship between some contingencies and the company's system for better performance.

2.4.2. Walker's Three Propositions Theory

This theory was developed by Walker (1964) as a theory relating to liquidity management; it was tested empirically and three (3) propositions were derived. He studied the effect of change as regards with working capital in terms of returns using nine (9) industries. A negative relationship was found and from his observations, the three (3) propositions were stated. The first proposition stated that if an amount of working capital is to be fixed capital, then the amount partaking risk which the firm assumes varies and ways for gain or loss will increase. If a company wishes to have a lower risk, equity for financing should be applied. By this, the company will reduce its high returns on equity. The second proposition is that the type of equity and debt capital used in finance affects the volume of risk the company assumes directly. He stated that the debt maturity periods and debt equity ratio do affects risk return on trade off. Based on that, the third proposition was derived and it states that the greater the difference between the company's flow generated internal funds and maturity of debt, the greater the risk. From his study, he tried to build up a theory that affects liquidity management.

In extending the second proposition, Weston and Brigham (1972) divided the debt into two short- and long-term debt. They suggested that cash management for short term debt should be replaced for long term debt because of the reduction of average cost of the firm's capital. Also, if the firm have excess funds, they will hold the marketable securities of short term after meeting its debt. Thus, this theory focused on management of cash, marketable securities, current debt and refund. Also, the type of equity or debt used in financing directly affects the risk which the firm assumes.

2.4.3. Pecking order Theory

This theory was first discussed by Donaldson (1961) where it was noticed that management prefers internal source of new funds than external if an unavailability crisis arises. It is also known as information asymmetry theory proposed by Myers (1984) which involves the order of preference. The theory made known that high growth rate of a company when dealing with huge finance result to high debt ratio because of equity not insured. Though the theory was later developed by Myers and Majluf (1984) which serves as alternative to trade-off theory stating the order of preference should be internal, debt and equity.

In relating this theory with liquidity management, Sebastian (2010) observed that liquidity and solvency interrelate through hedging, leverage and information means. The hedging and information mean reduce instability in cash-flow and increase equity value of a company (Etale & Bingilar, 2016). Profitability can increase when using internal funds due to full understanding of the company's environment by the manager and the interest of the shareholders are protected (Hussain, Shahid & Akmal, 2016). According to this theory, managers of most companies fund their capital through safe securities while other sources of funding internally will reduce investment when earnings are retained then

managers will issue debt plus equity as last option (Onyeka, Nnado & Iroegbu, 2018). Therefore, to achieve profitability, cash must be maintained in order to prevent cost issues when sourcing and managing funds. This theory (Pecking order theory) serves as the framework of this study.

2.5. Research Model

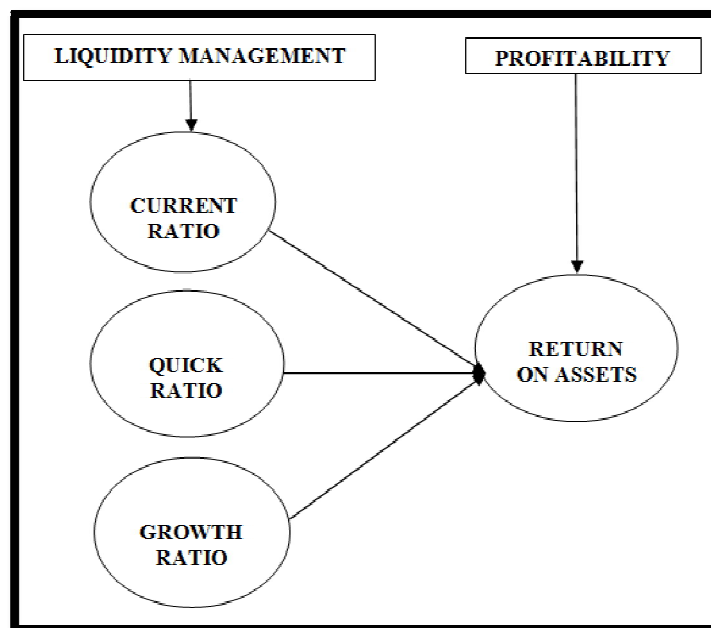


Figure 1: Conceptual Paradigm
Source: Researcher's Conceptualization (2019)

2.6. Empirical Review

Egbide, Olubukunola and Uwuigbe (2013) investigated the link between liquidity management and profitability. Data was collected from thirty (30) listed manufacturing companies in Nigeria covering the period of five (5) years (2006-2010). The findings showed that liquid ratio and current ratio were positively connected with profitability while CCC was negatively link with profitability but statistically insignificant. Thus, liquidity should be enhanced by creating more reasonable credit policy that will increase profitability.

Ehiedu (2014) described the correlation between current ratio and return on assets (ROA) as measurement of profitability, acid-test ratio, ROA and return on capital employed against profitability. The study made use of secondary data. Qualitative research design was used while public quoted companies from domestic products and industrial sectors serves as the population of the study using non-probability sampling technique in selecting four (4) companies. From the findings, there was a positive significant connection between current ratio and profitability, no significant relationship between acid-test ratio and profitability and finally no significant positive relationship between return on capital employed and profitability. It was recommended by the researcher that corporate bodies should not chase excessively on liquidity procedures at the detriment of their profitability rather strike a balance between profitability and liquidity.

Ezejiofor, Adigwe and John-Akamelu (2015) assessed the effects of credit management on liquidity and profitability of manufacturing companies in Nigeria. Research design adopted was descriptive. Two manufacturing companies were selected and data collected were analyzed using financial ratio while three hypotheses for the study were tested with ANOVA. From the study, credit policy affected the profitability of selected companies which indicated the significant relationship between the position of liquidity and profitability. The researcher recommended that companies need to maintain sufficient cash and do away with bad debt and related credit costs which it will reduce the issue of related credit costs and bad debt.

Ware (2015) measured the relationship and effects of liquidity and profitability using thirty-three (33) companies listed in Ghana Stock Exchange within the period of five (5) years (2005-2009). Descriptive analysis was adopted, and from the result, CCC, APP and ACP were not statistically significant to profitability. From conclusion, managers are expected to maintain short CCC in their companies' profitability which will lead to increase in current ratios and good credit policy.

Bala, Garba and Ibrahim (2016) examined the effect of corporate liquidity and profitability of listed food and beverages firms in Nigeria. The period covered for the study was six (6) years (2009-2014). Data collected were from various firm's annual reports. Multiple regression technique was used to test the model adopted while OLS regression was used in checking the validity of statistical inferences. The study revealed a strong positive connection between accounts payable, quick ratio, firm size, IFRS and ROA of the selected food and beverages firms in Nigeria. CCC was inversely but not statistically significant in relating to ROA. Therefore, it was recommended that managements of these firms should sustain a higher quick ratio due to the positive impact on profitability, there should be reduction in their collection period and finally, there should be delay in short-term debts as it affects firm's profitability positively.

Etale and Bingilar (2016) examined liquidity management and profitability of food and beverages companies listed in the Nigerian Stock Exchange. The study consists of five (5) listed companies of food and beverages in Nigeria. Data were collected from the selected companies' annual reports and accounts within a period of five (5) years (2011-2015). Descriptive statistics and multiple regression techniques were adopted. The findings indicated that quick ratio and cash ratio were positively and significantly related with profitability while CCC was negatively insignificant in relationship with profitability. It was recommended that effective and efficient use of management process and methods should be maintained to enable increase in profitability.

Orshi and Yunusa (2016) examined the connection between liquidity management and profitability of Nigerian listed food and beverages companies covering the period of 2004-2013. Ex-post facto research design was adopted. Data were collected from companies' annual reports and analysed using descriptive statistics as well as generalised least square multiple regression technique. The result revealed that CCC was insignificantly and negatively impacted on ROE and earnings per share. It was concluded that management of these companies should reduce their CCC to a reasonable minimum in order to maximize shareholder's wealth. The study recommended that management should maximize their use of trade credit and ensure proper management of cash-flows for increase in profitability.

Rizwan (2016) examined the impact of liquidity on performance of sixty-four (64) non-financial companies listed in Karachi Stock Exchange of Pakistan within the duration period of six (6) years. Correlation analysis, descriptive statistics and multivariate regression analysis were carried out. The result stated that there is a longer CCC and high current ratio. It was suggested that companies should strategize new ideas of their collection system and inventory as well as their credit sales policies.

Onyeka, Nnado and Iroegbu (2018) examined liquidity and profitability of firms listed in the manufacturing sector of the Nigerian Stock Exchange. Quantitative panel method was carried out using ex-post facto as the research design. Data were obtained from thirty-six (36) manufacturing firms for fifteen (15) years (2003-2017). Levin-lin-chu panel unit root test was used for diagnostic test which established the Westerlund panel co-integration and stationary tests where the result revealed that they were not co-integrated. Also, Hausman test showed the suitability and consistency of fixed effect multiple regression technique. The hypothetical results tested, indicated a positive significant control of cash and cash equivalent on ROA of the selected firms used. The study concluded that the profitability of these manufacturing firms in Nigeria is significantly influence by the sufficiency of cash holdings.

3. Methodology

This section describes the research design and methods used in the study. It shows the appropriate tests required to choose and the ideal model that best suits this study.

3.1. Research Design and Sample Size

Panel data analysis was used for this study. This research design was employed because it contains both time series and cross section data. The study has a sample size of two hundred and eighty (280) observations which consists of fifteen (15) companies of consumer goods sector and thirteen (13) companies of industrial goods sector making twenty-eight (28) companies of both sectors listed in the Nigerian stock exchange fact-book covering the period of ten (10) years 2009-2018. These firms were selected based on data availability.

3.2. Source of Data

Secondary data were used. These were collected from various firms' annual reports, Nigerian Stock Exchange Fact-book and the Central Bank of Nigerian Statistical Bulletins. Data sourced consists of current ratio, quick ratio, growth ratio and return on assets.

3.3. Model Specification

To evaluate the relationship between liquidity management and profitability of consumer and industrial goods sector in Nigeria, ordinary least square regression model was used to attain the co-efficient of the variables.

The model for the study is functionally stated below:

$$ROA' = (CR, QR, GR)' \dots\dots\dots (3.1)$$

The model is econometrically stated as:

$$ROA_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + \beta_3 GR_{it} + \epsilon_{it} \dots\dots\dots (3.2)$$

Where:

- ROA = Return on Assets
- CR = Current ratio
- QR = Quick ratio
- GR = Growth ratio
- β_0 = intercept
- $\beta_1 - \beta_4 > 0$ = Coefficient of CR, QR and GR
- ϵ_{it} = Error term
- i = Samples of consumer and industrial goods companies in Nigeria
- t = Time or period of the study

3.4. Statistical Techniques

The data collected were analyzed using descriptive statistics to check the mean, variance and standard deviations. The model was estimated using ordinary least square regression technique in testing the significance of each independent variable. Test for heteroskedasticity was carried out and analysis was conducted at a significance level of 0.05 using STATA version 14.0 statistical software package.

4. Data Analysis and Results

4.1. Descriptive Statistics of Selected Consumer and Industrial Goods Firms

The mean, median, maximum, minimum, standard deviation and variance of all variables used are shown below. The table indicates fifteen (15) companies of consumer goods sector and thirteen (13) companies of industrial goods sector listed in the Nigerian stock exchange covering the period of 2009-2018.

```

. tabstat roa cr qr gr, statistics( mean median max min sd var sum count ) by(exchangesector)
Summary statistics: mean, p50, max, min, sd, variance, sum, N
by categories of: exchangesector (Exchange Sector)

```

exchangesector	roa	cr	qr	gr
Consumer	7.733533	1.156	.7053333	15.75048
	6.175	1.1	.6	9.21
	26.52	2.9	2.1	268.71
	-25.69	.3	.1	-90.7
	8.27165	.5247537	.4118687	38.65533
	68.42019	.2753664	.1696358	1494.234
	1160.03	173.4	105.8	2315.32
	150	150	150	147
Industrial	4.681545	1.46748	.8512195	6.61082
	5.71	1.3	.6	6.155
	53.96	13.8	4.3	108.35
	-70.34	0	-.2	-61.96
	15.66578	1.428716	.7725162	21.54953
	245.4167	2.041229	.5967813	464.3822
	575.83	180.5	104.7	806.52
	123	123	123	122
Total	6.358462	1.296337	.7710623	11.60535
	5.96	1.2	.6	8.51
	53.96	13.8	4.3	268.71
	-70.34	0	-.2	-90.7
	12.24219	1.044271	.6048863	32.31824
	149.8711	1.090501	.3658875	1044.468
	1735.86	353.9	210.5	3121.84
	273	273	273	269

Table 1: Descriptive Statistics Based on Sectors

Source: Calculated Data from NSE 2009-2018 Using STATA 14.0

The result above reveals that the total average value of return on assets (ROA) shows 6.39. This indicates that companies of both consumer and industrial goods sectors were able to generate income and there was increase in profits. Furthermore, companies of consumer goods recorded a high turnover of 7.73 as against companies of industrial goods sector which recorded a mean value of 4.68 as illustrated above. On current ratio (CR), companies of consumer goods sector recorded an average value of 1.17 with a maximum value of 2.9, minimum value of 0.3 and a standard deviation of 0.5. Also, companies of industrial goods sector revealed a mean value of 1.47, a maximum value of 13.8, a zero minimum value and a standard deviation of 1.42. In total both recorded a mean value of 1.30, maximum value of 13.8 and a zero-minimum value with a standard deviation of 1.04. This illustrates that companies of both sectors have enough liquid assets to cover their short-term liabilities and can pay off debt in less than a year. Companies of consumer goods sector revealed a mean value of 0.71 on quick ratio (QR) with a maximum value of 2.1, a less minimum value of 0.1 and standard deviation of 0.41. Companies of industrial goods sector showed an average value of 0.85 in their QR, a maximum value of 4.3 and a negative minimum value of -0.2, a standard deviation of 0.77. Companies of both sectors shows a total mean of 0.77, maximum value of 4.3 and a negative less minimum value of -0.2 with a standard deviation of 0.60. This indicates that companies of both sectors depend mostly on inventories or other assets in paying off their debts. It also reveals that sample companies did not have enough quick funds available in meeting their current financial obligations. For Growth ratio (GR), companies of consumer goods sector gave an average value of 15.75, a maximum value of 268.71 and a negative minimum value of -90.7 a standard deviation of 38.66, while companies of industrial goods sector showed a mean value of 6.61, a maximum value of 108.35 with a negative minimum value of -61.96 and standard deviation of 21.55. Both sampled companies of these sectors in total shows an average value of 11.61, a maximum value of 268.71 and a negative minimum value of -90.7 with a standard deviation of 32.32. This implies that sampled companies of both sectors have a chance of

using more equity in finance. Thus, from the table above it reveals that companies of consumer goods sectors were able to manage their liquidity effectively well by meeting up with their debts thereby reducing risk and being able to avoid extreme investments of assets which helps in future investment decisions.

4.2. Correlation Test

Current ratio (CR) is 0.21 which is positively and weakly associated with return on assets (ROA) at 13% level of association as shown in table 2 below. Quick ratio (QR) is 0.30 and is positively and weakly associated with ROA at 97% level of association. Finally, Growth ratio (GR) is 0.14 which is positively and weakly associated with ROA at 36% association level. Thus, the table reveals that liquidity management has a direct significant effect on companies' profitability which is tested at 0.05 significant level.

```
. pwcorr roa cr qr gr, star(0.05) sig
```

	roa	cr	qr	gr
roa	1.0000			
cr	0.2127*	1.0000		
	0.0004			
qr	0.2969*	0.8171*	1.0000	
	0.0000	0.0000		
gr	0.1356*	0.0136	-0.0369	1.0000
	0.0262	0.8239	0.5464	

Table 2: Correlation Test
Source: Researcher's Computation 2019

4.3. Regression Analysis and Model Estimation

```
. *(8 variables, 280 observations pasted into data editor)
. regress roa cr qr gr
```

Source	SS	df	MS	Number of obs	=	269
Model	4578.4968	3	1526.1656	F(3, 265)	=	11.21
Residual	36090.0738	265	136.188958	Prob > F	=	0.0000
				R-squared	=	0.1126
				Adj R-squared	=	0.1025
Total	40668.5706	268	151.748398	Root MSE	=	11.67

roa	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
cr	-1.32455	1.184448	-1.12	0.264	-3.656677 1.007577
qr	8.012611	2.058993	3.89	0.000	3.958544 12.06668
gr	.0578001	.0221369	2.61	0.010	.0142135 .1013867
_cons	1.269292	1.211686	1.05	0.296	-1.116464 3.655048

Table 3: Summary of the Regression Analysis Result
Source: Researcher's Computation 2019

Model: $ROA_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + \beta_3 GR_{it} + \epsilon_{it}$

Estimation Equation:

$ROA = C(1)*CR + C(2)*QR + C(3)*GR$

Substituted Coefficients:

$ROA = 1.269292 - 1.32455CR + 8.012611QR + 0.0578001GR$

The table above illustrates the result of analysis carried out. From the result, current ratio (CR) is insignificantly and negatively impacted on profitability (ROA). This implies that companies from both sectors do not have enough cash to operate on a good short-term financial strength. Quick ratio (QR) shows a significant and positive impact on profitability.

This implies that companies of both sectors were able to use their current assets to pay off their current liabilities. Also, they were able to make use of financing activities efficiently well thereby increasing their company's profitability. Growth ratio (GR) is significantly and positively impacted on profitability. This indicates that companies especially the industrial sector have the opportunity of using more equity in financing which leads to profitable investment interest. Thus, liquidity management is significantly related to profitability based on the analysis carried out showing the value of 0.000 F-statistics.

4.4. Discussion of Findings

Current ratio which was not significantly and negatively impacted on profitability was in accordance with the result of Irawan and Faturohman (2015). While the study of Ajanthan (2013); Nizigiyimana (2014) and Ehiedu (2014) revealed positive results, which implies that companies of both sectors should lighten up in credit sales and collection turnover system which will be accessed by customers because when current ratio increases, profitability will increase too. Quick ratio result was in line with the results of previous studies of Ajanthan (2013) and Nizigiyimana (2014) which stated that it was significant and positively connected with profitability. But it was not in line with the result of Irawan and Faturohman (2015) whose result showed negative relationship with profitability. Growth ratio (GR) showed a positive result with this study Tornyiva (2013) unlike the study of Putri and Fidiana (2017) that is negatively related with profitability. In order to achieve profitability according to pecking order theory which is being linked with this study, managers are encouraged to manage cash to avoid cost issues when sourcing and managing funds.

5. Conclusion and Recommendations

In conclusion, it was discovered that quick ratio and growth ratio were significantly and positively impacted on profitability while current ratio is insignificantly and negatively impacted on profitability. This proves that managers of these companies plan and controls their company's current assets and liabilities by removing or reducing the risk involved and inability to meet short-term obligations thereby avoiding extreme investments of assets. Thus, it is recommended that managers should ensure proper monitoring of their working capital, managing and controlling of cash inflows and outflows, encourage increase in cash-flow by reducing the repayment system and maintain adequate funding, finally seek for optimal balance between liquidity and profitability because of its impact in profitability increase.

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