

## Impact of Liquidity on Assets Turnover and the Profitability of Selected Breweries in Nigeria

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### Abstract

Liquidity and profitability are two critical measures of financial performance of firms in the brewery sector. This study explored the impact of liquidity on assets turnover and the profitability of selected breweries in Nigeria. Liquidity was proxied by the Current Ratio (CR) and the Quick Ratio (QR), while profitability was proxied by Return on Assets (ROA). The study sought to examine whether Current Ratio and Quick Ratio has significant positive or negative impact on ROA of the brewery at 5 percent significance level. Nigerian Breweries Plc was the sample size based on judgmental sampling method. Historical research design was employed, with quantitative method of data collection, presentation and test of hypotheses. This study utilized a secondary panel dataset ranging from 2008 to 2018; extracted from the published annual reports and accounts of Nigerian Breweries Plc. The statistical tool applied was Linear Regression Model and OLS Regression Model. The study found that there is significant relationship between current ratio and ROA, and that there is significant relationship between quick ratio and ROA. The study concluded that management of Nigerian Breweries Plc can push up the current ratio to 1:1 from its current position of 0.65:1, to remedy the diverging relationship between revenue and PBI&T, as well as the unwholesome rising profile of operating expenses over PBI&T in subsequent accounting periods. The study recommended that management of Nigerian Breweries Plc should not keep a low current ratio else it might be forced to seek for short time borrowing which will decrease ROA, and should not keep a low quick ratio else it might be forced to sell at discount which will decrease ROA.

**Keywords:** Liquidity, Asset Turnover, Profitability, Breweries

### Introduction

The top staple choice of drinks are malt, wines and liquors for both young and seniors in Nigeria (Willie, 2019). The Nigerian Stock Exchange has four (4) firms listed under brewery and consumer goods section, and are regulated by Securities and Exchange Commission. These include Champion Breweries Plc, International Breweries Plc, Nigerian Breweries Plc, and Golden Guinea Breweries Plc. Nigerian Brewery Limited, as the pioneer and largest brewing company in Nigeria, was incorporated in 1946 as and was listed on the NSE by 1973 (Willie, 2019). When Companies and Allied Matters Act became enacted in 1990, the name of the Company was changed to Nigerian Breweries Plc to reflect its public limited liability status. The Company has a rich portfolio of high-quality brands in the malting and beverage industry. Star lager beer was launched in 1949, followed by Gulder lager beer in 1970, Maltina in 1976, Legend Extra Stout in 1992, Amstel Malta in 1994, Heineken lager beer in 1998, Fayrouz in 2006, and Climax herbal energy drink in 2010. Following the acquisition of Sona Systems and Life Breweries in 2011, Goldberg lager, Malta Gold and Life Continental lager, were added to the brand portfolio. The Company also added two-line extensions of the Star brand - Star Lite and Star Radler in 2014; and subsequently, 33 Export lager beer, Williams dark ale, Turbo King dark ale, More lager beer and two malt drinks, Maltex and Hi Malt after merger with Consolidated Breweries Plc. Likewise, premium Apple Cider, Strongbow (Gold Apple) and Ace brand in the RtD category, were launched in 2015, while Tiger lager beer was brought in 2018. The Company has an export business which dates back to 1986, however current destinations are the United Kingdom, Netherlands, United States, Canada, some part of Africa, Middle East and Asia. The company is a subsidiary of Heineken N.V. of the Netherlands, with the latter holding a 54.10 per cent controlling interest in its equity structure. Vision of Nigerian Breweries Plc is to be a world

class company. Mission is to be the leading beverage company in Nigeria, marketing high quality brands to deliver superior customer satisfaction in an environmentally friendly way. Core values of the Company are respect, passion for quality enjoyment, and performance. Principal activity of the Company are to operate the brewery plants and bottling lines for the manufacture, packaging, sales and distribution of beverages in Nigeria and other countries. The inventory activities are currently done at nine (9) fully operational breweries including Lagos, Ibadan, Kudenda, Aba, Ama-Omamma, Kakuri, Ota, and Ijebu-Ode, in addition to the two (2) malting plants in Aba and Kaduna. It also has ten (10) Sales Offices and Distribution Centers such as in Lagos, Ibadan, Benin, Abuja, Kaduna, Port-harcourt, Enugu, Aba, Onitsha, and Makurdi. Firms are mostly concerned with their profitability, as profitability serves as one of the objectives of business necessary for long-time survival. Financial performance measures serve as a basis for evaluating the performance of a corporate entity (Liebrand, 2007). The commonly used measures to assess financial performance in companies are return on assets (ROA), return on equity (ROE), return on capital employed (ROCE) and net profit margin on sales. According to Willie (2019), liquidity is the ability of firms to meet commitments when they fall due without incurring unacceptable losses. Liquidity measures the ability of a company to pay off its short-term liabilities when they fall due in order not to increase liability which in turn decreases the period's profit. They show the number of times the short-term borrowings are covered by the current liabilities. The diverging relationship between revenue and profit before interest & tax (PBI&T) of Nigerian Breweries PLC necessitates an urgent evaluation of the company's liquidity position. It is against this backdrop that the study examines the impact of liquidity on assets turnover and the profitability of selected breweries in Nigeria.

### **Thesis Statement**

The first half of 2009 was a period of growth, but the second half was one of slow down at Nigerian Breweries. The general state of public infrastructure, such as road, power and security, has increased the time and cost in the haulage of both raw materials and finished products across the country, which invariably causes low inventory liquidity. The issue of militancy, revolution, banditry as well as terrorism in some regions of Nigeria, is a major challenge to people and businesses, as social life which boosts inventory marketing and liquidity, is practically brought to a standstill. In 2012, there was government withdrawal of subsidy on premium motor spirits (known as petrol), which led to an increase in the pump price of the product, almost paralyzed social and business activities of the people, and invariably reduced the liquidity of Nigerian Breweries. The total brewed product recorded a modest growth in 2013, however poverty level remained high and that obviously led to down-trading in the market, leading to extreme market competition with incumbents and low liquidity of Nigerian Breweries. The economy, was rebased by the Nigerian Bureau of Statistics in 2014, which confirmed it as the largest economy and investment destination in Africa, but this was ill affected in the 2015 global economic recession, that saw an exit of major foreign investors. A number of input items, were restricted from the official foreign exchange window, in 2015, which made it difficult to access forex for importing raw materials and meet other contractual obligations with overseas suppliers, thereby invariably causing lower liquidity (Willie, 2019). A liquidity crisis can arise even at healthy companies; that is circumstances that make it difficult for them to meet short-term obligations such as repaying their loans and paying their employees. The diverging relationship between revenue and PBI&T of Nigerian Breweries Plc necessitates an urgent evaluation of the company's liquidity position. Liquidity management seeks to achieve the desired trade-off between liquidity and profitability (Nahum & Amarjit, 2013). JerutoKeitany, et. al., (2014) found that the purchasing department spends money on inventory while their stores or warehouses are holding huge stock of inventory, thereby blocking money and wasting space. Nsikan, et al (2015) found that there was a problem of inaccurate forecasts mainly because they lack real time inventory information on customers demand. Nyabwnga and Ojera (2012) also expressed that when faced with a stock-out, a consumer may find, try, and ultimately prefer a substitute product. Keeping a low acid test ratio might force management to hurriedly sell off inventory at a discount to raise funds when the accounts payable are due, and negatively affect the return on asset. This study seeks to examines the impact of liquidity on assets turnover and the profitability of selected breweries in Nigeria.

### **Aims and Objectives**

The aim of the study is to examine how liquidity impacts on asset turnover and profitability of Nigerian Breweries Plc. Specific objectives include:

- c) To investigate the extent to which current ratio significantly affects return on asset.
- d) To investigate the extent to which quick ratio significantly affects return on asset.

### **Conceptual Review**

Liquidity is “the extent to which an organization’s assets are liquid, enabling it to pay its debts when they fall due, and also to move into new investment opportunities (Oxford, 2005)”. Liquidity is the capacity of an organization to clear its short-term financial obligations in a timely way (Abubakar, et. al., 2018; Ejike & Agha, 2018; and Burke, 2019). High volumes of available cash imply, businesses are in a position to honour their financial obligations when they fall due without defaulting (Syed, 2015; Lyndon & Paymaster, 2016; Raykov, 2017; Bragg, 2018). Puneet and Parmil (2012) viewed liquidity and profitability as dual economic expressions at the tail ends of a thread, where a movement in the direction of one point inevitably means, a drive away from the other. In other words, the two are in a trade-off position. According to the trade-off hypothesis of liquidity, firms target an ideal level of liquidity to bring into balance the costs and benefits of handling cash (Orshi, 2016). From a trade-off position, firms with an increased level of leverage draw high cost in paying back the obligation hence hindering financial viability. It thus become tedious for such corporations to obtain other means of finance (Garcia & Martinez, 2007; Lamberg & Valming, 2009; Saluja & Kumar, 2012). Holding cash at that point, becomes an issue for both smaller and larger firms. Firms therefore need a balance between liquidity and profitability in order to have an ideal level of liquid resources (Raheman & Nasr, 2007; and Lazaridiss & Tryfonidis, 2005). Financial ratios are useful in identifying the key financial variables and the relationship between the variables with intent of giving meaning to the various relationships while ascertaining the strengths and weaknesses of the firm. Financial ratios can be analysed for a short period or long term depending on the need and purpose. Examples include profitability ratios, liquidity and efficiency ratios, investment ratios, turnover ratios or activity ratios and leverage ratios (Asian, 2015). A major deviation of the ratios from period to period would attract comments and investigations. The liquidity of a brewery firm can be evaluated and interpreted through the current ratio, quick ratio, or net working capital ratio (Willie, 2019). These are used to ascertain how liquid a firm is and its potentials in meeting maturing short term obligations, and to make investment decisions, (Asian, 2015). For the purpose of this study, we adopted current ratio and quick, as a measure of the liquidity of selected brewery companies. The current ratio is a liquidity ratio that measures a company's ability to pay short-term obligations or those due within one year (Willie, 2019). Current ratio is defined as “the ratio of current assets to current liabilities (Oxford 2005)”. A current ratio that is in line with the industry average or slightly higher is generally considered acceptable. A current ratio that is lower than the industry average may indicate a higher risk of distress or default. Similarly, if a company has a very high current ratio compared to their peer group, it indicates that management may not be using their assets efficiently. Another drawback of using current ratios, briefly mentioned above, involves its lack of specificity. Unlike many other liquidity ratios, it incorporates all of a company’s current assets, even those that cannot be easily liquidated. The quick ratio is an indicator of a company’s short-term liquidity position and measures a company’s ability to meet its short-term obligations with its most liquid assets (Willie, 2019). It is also called an acid test which is designed to produce instant results—hence, the name (Will, 2019). A result of 1 is considered to be the normal quick ratio, as it indicates that the company fully equipped with exactly enough assets to be instantly liquidated to pay off its current liabilities. A company that has a quick ratio of less than 1 may not be able to fully pay off its current liabilities in the short term, while a company having a quick ratio higher than 1 can instantly get rid of its current liabilities. For instance, a quick ratio of 1.6 indicates that the company has \$1.60 of liquid assets available to cover each \$1 of its current liabilities. While such numbers-based ratios offer insights into certain aspects and viability of businesses, they may not provide a complete picture of the overall

health of the business.

Profitability is the financial performance and position, including all incomes, expenses, assets, equity and liabilities obtainable by year end (Willie, 2019). The ability of a firm to continue to exist as a going concern depends on its ability to generate profit or achieve break-even from all business activities (Willie, 2019). It measures management efficiency in the use of organizational resources in adding value to the business (Willie, 2019). Irrespective of the fact that profitability is an important aspect of business, it may be faced with some weakness such window dressing of transactions and the use of different accounting principles (Ajao & Solomon, 2012). Financial ratios are useful in identifying the key financial variables and interpreting the relationship between them while ascertaining the strengths and weaknesses of the firm (Willie, 2019). Financial ratios can be analysed for a short period or long term depending on the need and purpose; such as profitability ratios, liquidity and efficiency ratios, investment ratios, turnover ratios or activity ratios and leverage ratios (Asian, 2015). Profitability ratios includes return on capital employed (ROCE), return on assets (ROA), return on equity (ROE), and net profit margin. These ratios are used to assess the level of profitability of a firm it is used by investors in combination with investment ratios to take investment decisions. For the purpose of this study, we adopted return on asset, as a measure of the profitability of selected brewery companies. Deloitte (2019) defines an asset as, “a present economic resource controlled by the entity as a result of past events”. An asset gives the owner the right or power to obtain future economic benefit or capital inflows back to the entity, and prevent others from enjoying same (Deloitte, 2019). A company’s ability to create return for its shareholders (as measured by its return on equity) depends on its ability to generate revenues from assets, known as asset turnover (CFA Institute, 2019). It relates the revenue generated for the period to the company’s expenditure on all its assets (Imhanzenobe, 2019). It also measures the efficiency with which a company’s assets are used to generate sales revenue (Ama, 2015). This ratio is expressed as a multiple, and indicates the volume of revenues being generated by the assets used in the business, or how effectively the company uses its assets to generate revenues (CFA Institute, 2019). Companies with low profit margins tend to have high return on assets, while those with high profit margins have low return on assets (Jamali & Asadi, 2012). An increasing asset turnover ratio may indicate improving financial performance (CFA Institute, 2019), but care should be taken in interpreting this figure. An increasing ratio may also indicate static figures and decreasing assets attributable to depreciation; in other words, sales are not growing and the company is not reinvesting to keep its plant and machinery up to date (CFA Institute, 2019). If the asset turnover for similar companies are compared with that of reporting company, then you can assess whether or not it is using its assets as effectively as those companies to generate revenue (Okosun, 2022). It is therefore important to assess the causes of changes in an asset turnover ratio, for example, changes in net profit margin, changes in operating profit margin, amongst others (Okosun, 2022). A lower asset turnover is attributable to a higher net profit margin, and higher operating profit margin which increases the return on assets, basic earnings power and return on equity attributable to the reporting firm (Okosun, 2022). Several studies have measured liquidity with return on asset (Yameen & Pervez, 2016; Khidmat & Rehman, 2014; and Oyewale & Adewale, 2014). ROA has been suggested to give a broader and more long-term view of profitability as it relates profit (in form of earnings before interest and tax) to the total asset of the firm. While, other measures (e.g. return on equity and net profit margin) relate profit to revenue which is periodic (short-term) or equity which is myopic i.e. only from shareholders’ perspective (Aliabadi, et al. 2013; Hagel, et al. 2010). Nestle Nigeria Plc, Dangote Sugar Plc, GlaxoSmithKline Nigeria Plc, Guinness Nigeria Plc and Unilever Plc were found to have high return on asset (ROA>10%) (Imhanzenobe, 2019).

### **Theoretical Framework**

The pecking order theory was popularized by Myers (1984), a Professor of Financial Economics at the Massachusetts Institute of Technology. He argues that equity is less preferred means to raise capital because when managers; who are assumed to know better about the condition of the firm than investors issue new equity (Willie, 2019). It is believed that managers think that the firm is overvalued and managers are taking advantage of this over valuation (Willie, 2019). It also captures 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' (Willie, 2019). This implies that internal financing is used first; when it is depleted, then debt is issued and when it is no longer sensible to issue more debt, equity is issued (Willie, 2019). Thus, managers enter in serious dilemma when liquidity is below required level. They have the fear of equity financing hence they don't mind sharp cut on dividend to avert liquidity crises in the next accounting period (Willie, 2019). The sharp cut on the 2018 dividend of Nigerian Breweries PLC is an obvious move to avert an impending liquidity crisis (Willie, 2019). This is more evident by the higher rate of rise of operating expenses in relation to profit before interest and tax, as well as the higher rate of rise of cost of sales in relation to gross profit; which was not the case seven years earlier (Willie, 2019). This is significant to this study, as other theories didn't bring out why and how incomplete financial information on liquidity could affect their profitability.

### **Review of Prior Studies**

The review of literature has shown that there are few works on the liquidity and profitability in the brewery or beverage sector. Pibowei (2019) investigate inventory liquidity management and return on investment in Dangote Cement, found that there is no significant relationship between quick ratio and ROA; and no significant relationship between quick ratio and ROE. Imhanzenobe, (2019) studied the impact of operational efficiency on financial sustainability of listed manufacturing companies in Nigeria, and found that operating expenses had negative significant relationship with ROA while assets turnover had a positive significant relationship with ROA, but did not examine the relationship between liquidity and the company's return on asset. Ali et al (2018) carried out a study on the actors affecting corporate performance using panel data from listed firms in Jordan, and found that there is a significant and positive relationship between liquidity measured by current ratio, and return on asset. Elumah & Shobayo, (2018) studied the performance analysis of Nigerian brewery industry, and found that that the firms were efficient in using its asset to generate profit and return on investment, while the industry financial risk was relatively low, but the scope of research was limited to a five years period. Mehmet & Mehmet (2018) studied the factors determining the impact of financial characteristics on firm profitability, with evidence from selected Borsa Istanbul energy firms, and found that there is a significant and positive relationship between liquidity (current & quick ratios), and return on asset. Ofoegbu et al (2018) carried out research on liquidity management and profit performance of pharmaceutical manufacturing firms listed in Nigeria Stock Exchange, and found that there is a significant and positive relationship between liquidity (current & quick ratios), and return on asset. Swagatika & Ajaya (2018), studied the determinants of corporate profitability in selected Indian manufacturing firms and found that there is a significant and positive relationship between liquidity measured by current ratio, and return on asset. Isik (2017) carried out a study on the determinants of profitability with evidence from real sector firms listed in Borsa Istanbul, and found that there is a significant and positive relationship between liquidity (current & quick ratios), and return on asset. Rizwan (2016) studied the impact of liquidity management on profitability of Pakistani firms: A case of KSE-100 Index, and found that there is a significant and positive relationship between liquidity measured by current ratio, and return on asset. Mohammed et al (2015) investigated the liquidity-profitability relationship of firms listed in Saudi stock exchange, and found that there is a significant and positive relationship between liquidity measured by current ratio, and return on asset. Aremu et al. (2013) studied the determinants of banks' profitability in a developing economy with evidence from Nigerian banking industry; and found that there is a significant and positive relationship between liquidity (current & quick ratios), and return on asset. In an attempt to fill the time and industry gap in previous research, this study explored the impact of liquidity on assets turnover and profitability in the Nigerian Breweries Plc over a period of ten (10) years covering from 2008 – 2018.

### **Methodology**

Historical research design was employed, with quantitative method of data collection, presentation and test of hypotheses. The population of study include five (5) listed breweries such as Champion Breweries Plc, International Breweries Plc, Nigerian Breweries Plc, Guinness Nigerian Plc, and Golden Guinea Breweries Plc

(Source: Nigerian Exchange Group Plc). The sample size is Nigerian Breweries Plc with a data of ten (10) years from 2008 to 2017; based on a judgmental sampling technique and preceding year basis of measurement. A secondary panel dataset on current ratio, quick ratio and return on asset; was extracted from published annual reports and accounts of the Company. Single Linear Regression and Ordinary Least Squares Model was used for data analysis with the aid of Microsoft Excel Suite.

**Presentation of Data**

Table 1.1 Ten Years Summary of Nigerian Breweries Current Ratio  
(Source: Nigerian Breweries Annual Report and Accounts 2008-2017 extract)

| YEAR | Current Assets<br># 'Thousand | Current Liabilities<br># 'Thousand | Current Ratio<br># 'Thousand |
|------|-------------------------------|------------------------------------|------------------------------|
| 2008 | 40,625,416                    | 54,775,451                         | 0.74                         |
| 2009 | 37,629,344                    | 42,318,498                         | 0.89                         |
| 2010 | 40,284,272                    | 44,879,962                         | 0.90                         |
| 2011 | 56,999,297                    | 67,718,581                         | 0.84                         |
| 2012 | 56,866,627                    | 86,834,468                         | 0.65                         |
| 2013 | 45,285,469                    | 100,295,715                        | 0.45                         |
| 2014 | 56,930,683                    | 114,554,626                        | 0.50                         |
| 2015 | 57,480,020                    | 140,655,590                        | 0.41                         |
| 2016 | 74,558,034                    | 144,856,800                        | 0.51                         |
| 2017 | 87,491,662                    | 156,698,905                        | 0.56                         |

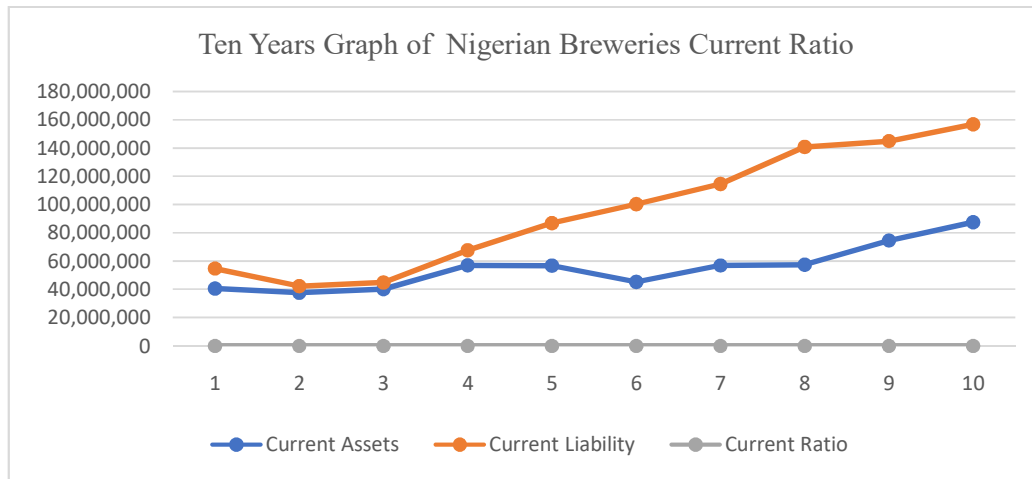


Table 1.1 presents data on Ten Years Summary of Nigerian Breweries Current Ratio, computed based on the ratio 1 – current ratio formula. Figure 1.1 presents a time series chart on the Ten Years Summary of Nigerian Breweries Current Ratio, which was developed using Microsoft Excel 2016. This data forms basis for stationary test analysis as well as linear regression analysis and test of hypotheses.

**Table 1.2 Ten Years Summary of Nigerian Breweries Quick Ratio**  
Source: Nigerian Breweries Annual Report and Accounts 2008-2017 extract

| YEAR | Current Assets<br># 'Thousand | Current Liabilities<br># 'Thousand | Closing Inventory<br># 'Thousand | Quick Ratio<br># 'Thousand |
|------|-------------------------------|------------------------------------|----------------------------------|----------------------------|
| 2008 | 40,625,416                    | 54,775,451                         | 20,741,461                       | 0.36                       |
| 2009 | 37,629,344                    | 42,318,498                         | 22,064,847                       | 0.37                       |
| 2010 | 40,284,272                    | 44,879,962                         | 21,231,097                       | 0.42                       |
| 2011 | 56,999,297                    | 67,718,581                         | 24,056,210                       | 0.49                       |
| 2012 | 56,866,627                    | 86,834,468                         | 24,652,723                       | 0.37                       |
| 2013 | 45,285,469                    | 100,295,715                        | 20,643,153                       | 0.25                       |
| 2014 | 56,930,683                    | 114,554,626                        | 28,478,459                       | 0.25                       |
| 2015 | 57,480,020                    | 140,655,590                        | 28,409,703                       | 0.21                       |
| 2016 | 74,558,034                    | 144,856,800                        | 31,244,703                       | 0.30                       |
| 2017 | 87,491,662                    | 156,698,905                        | 42,728,862                       | 0.29                       |

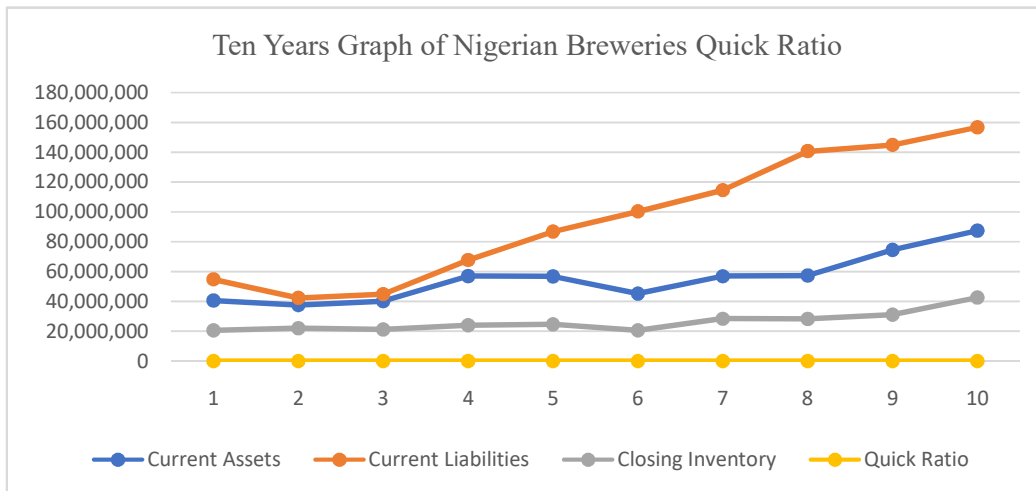


Table 1.2 presents data on Ten Years Summary of Nigerian Breweries Quick Ratio, computed based on the ratio 2 – quick ratio formula. Figure 1.2 presents a time series chart on the Ten Years Summary of Nigerian Breweries Quick Ratio, which was developed using Microsoft Excel 2016. This data forms basis for stationary test analysis as well as linear regression analysis and test of hypotheses.

**Table 1.3 Ten Years Summary of Nigerian Breweries Return on Assets**  
Source: Nigerian Breweries Annual Report and Accounts 2008-2017 extract

| YEAR | Profit Before Interest<br>&Tax<br># 'Thousand | Total Assets at Year End<br># 'Thousand | Return on Assets<br># 'Thousand |
|------|---|---|---------------------------------|
| 2008 | 37,785,009                                    | 104,412,640                             | 0.36                            |
| 2009 | 42,138,251                                    | 106,987,883                             | 0.39                            |
| 2010 | 45,150,084                                    | 114,389,432                             | 0.39                            |
| 2011 | 58,566,497                                    | 196,936,631                             | 0.30                            |
| 2012 | 64,491,873                                    | 253,633,629                             | 0.25                            |
| 2013 | 69,722,627                                    | 252,759,633                             | 0.28                            |
| 2014 | 67,558,219                                    | 349,676,784                             | 0.19                            |
| 2015 | 62,772,975                                    | 356,707,123                             | 0.18                            |

|             |            |             |      |
|-------------|------------|-------------|------|
| <b>2016</b> | 53,324,914 | 367,639,915 | 0.15 |
| <b>2017</b> | 57,298,384 | 382,726,540 | 0.15 |

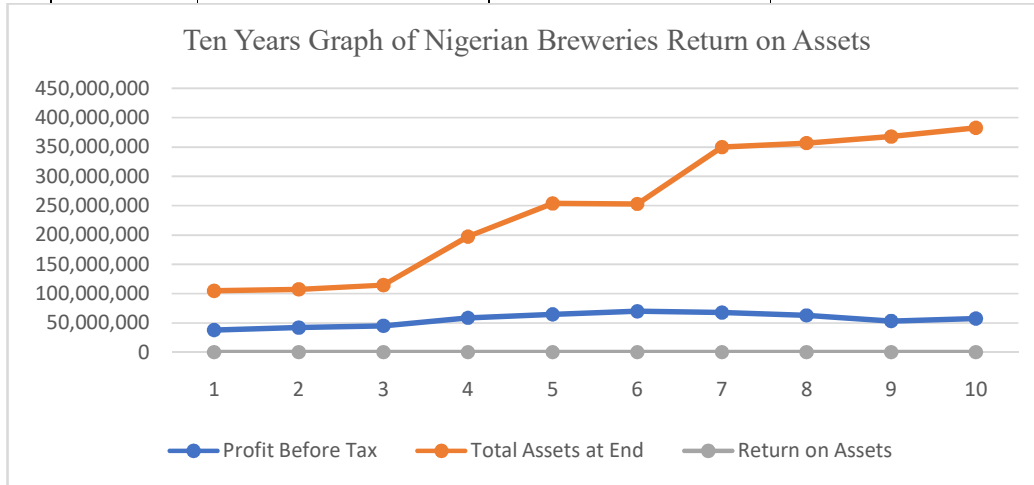


Table 1.3 presents data on Ten Years Summary of Nigerian Breweries Return on Assets, computed based on the ratio 3 – return on assets formula. Figure 1.3 presents a time series chart on the Ten Years Summary of Nigerian Breweries Return on Assets, which was developed using Microsoft Excel 2016. This data forms basis for stationary test analysis, as well as linear regression analysis and test of hypothesis.

**Statistical Analysis**

**3) The impact of liquidity (measured by current ratio) on profitability (measured by return on asset) of the Nigerian Breweries Plc.**

| <i>Regression Statistics</i> |          |
|------------------------------|----------|
| Multiple R                   | 0.826167 |
| R Square                     | 0.682552 |
| Adjusted R Square            | 0.642871 |
| Standard Error               | 0.056777 |
| Observations                 | 10       |

| <b>ANOVA</b> |           |           |           |          |                       |
|--------------|-----------|-----------|-----------|----------|-----------------------|
|              | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Significance F</i> |
| Regression   | 1         | 0.055451  | 0.055451  | 17.20099 | 0.00322               |
| Residual     | 8         | 0.025789  | 0.003224  |          |                       |
| Total        | 9         | 0.08124   |           |          |                       |

|           | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> |
|-----------|---------------------|-----------------------|---------------|----------------|
| Intercept | -0.00798            | 0.067992              | -0.11739      | 0.909443       |
| CR        | 0.421677            | 0.101672              | 4.147408      | 0.00322        |



**2) The impact of liquidity (measured by quick ratio) on profitability (measured by return on asset) of the Nigerian Breweries Plc.**

| <i>Regression Statistics</i> |          |
|------------------------------|----------|
| Multiple R                   | 0.636897 |
| R Square                     | 0.405638 |
| Adjusted R Square            | 0.331342 |
| Standard Error               | 0.07769  |
| Observations                 | 10       |

| ANOVA      |           |           |           |          |                       |
|------------|-----------|-----------|-----------|----------|-----------------------|
|            | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Significance F</i> |
| Regression | 1         | 0.032954  | 0.032954  | 5.459803 | 0.047666              |
| Residual   | 8         | 0.048286  | 0.006036  |          |                       |
| Total      | 9         | 0.08124   |           |          |                       |

|           | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> |
|-----------|---------------------|-----------------------|---------------|----------------|
| Intercept | 0.032707            | 0.101989              | 0.320691      | 0.756661       |
| QR        | 0.69877             | 0.299051              | 2.336622      | 0.047666       |

**Test of Hypotheses**

To make a decision about null hypothesis  $H_0$ ; the computed value due to regression, denoted by SIG or P-value, is compared with the chosen alpha, denoted by  $F_\alpha$  or SIG (0.05). The computed P-value of ANOVA is used to test the null hypothesis of equal population means between variable X and variable Y. If P-value is greater than  $\alpha$  (0.05), then you accept  $H_0$  because one independent variable has no significant effect on one dependent variable. If P-value is less than  $\alpha$  (0.05), then you reject  $H_0$  and accept  $H_1$  because one independent variable has a significant effect on one dependent variable.

$H_0$ : Sig. > 0.05    Accept  $H_0$ , where table value due to regression is more than chosen alpha

$H_1$ : Sig. < 0.05    Reject  $H_0$ , where table value due to regression is less than chosen alpha

**Ho1 There is no significant relationship between current ratio and profitability measured by return on assets**

Results showed R-Coefficient at 0.826, which implies that there is an 82.6 per cent correlation between current ratio and return on assets. Results also showed R-Square at 0.682, which implies that current ratio has a 68.2 per cent on the return on assets. While ANOVA table shows that F-state of 17.200 is significant at p-value (.003) which implies that there is a significant relationship between current ratio and return on assets.

**Ho2 There is no significant relationship between quick ratio and profitability measured by return on assets**

Results showed R-Coefficient at 0.636, which implies that there is a 63.6 per cent correlation between quick ratio and return on assets. Results also showed R-Square at 0.405, which implies that quick ratio has a 40.5 per cent on the return on assets. While ANOVA table shows that F-state of 5.459 is significant at p-value (.047) which implies that there is a significant relationship between quick ratio and return on assets.

**Conclusions**

The study uncovered how Current ratio and Quick Ratio have significant positive or negative effect on the firms' profitability as measured by return on Assets (ROA). The study therefore concluded that the management of Nigerian Breweries Plc can push up the current ratio to 1:1 from its current position of 0.65:1, to remedy the diverging relationship between revenue and PBI&T, as well as the unwholesome rising profile of operating expenses over PBI&T in subsequent accounting periods.

### Recommendations

It was recommended that the management of:

1. Nigerian Breweries Plc should not keep a low current ratio else it might be forced to seek for short time borrowing which will decrease return on assets.
2. Nigerian Breweries Plc should not keep a low quick ratio else it might be forced to sell at discount which will decrease return on assets.

### References

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