THE INFLUENCE OF LIQUIDITY ON THE PERFORMANCE OF THE NIGERIAN CEMENT COMPANIES

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ABSTRACT

The sustainability and performance of a business are primarily determined by liquidity and its control. This is because the firm's smooth processes may be injured by either insufficient liquidity or surplus liquidity. This apparent dilemma has enticed a great deal of concern in issues pertaining to the management of liquidity. However, diagnosis in the cement industry has been sparse. Therefore, the goal of the article is to research the connection amid liquidity and financial efficiency. The study is hinged on a selection of the four cement firm quoted for the duration of 2010 to 2019 on the Nigeria Stock Exchange. Using fixed effect panel regression model, this study found that liquidity management to a large extent has an adverse substantial association with the indicators of financial performance in the Nigerian cement industry. However, only a few positive coefficients were noticed as Quick proportion possesses a complimentary influence on performance (TobinQ, ROE and Leverage ratio) likewise Current ratio also has a complimentary association with ROA and ROCE. The research recommends, among other items, on the basis of the analysis, that cement businesses should sustain a progressive financial success by adeptly controlling their liquid capital.

Keywords: Liquidity, Financial performance, Management, Cement Industry

INTRODUCTION

In reaction to the impacts of globalization, the cement industry has become a significant engine of economic development in developing nations *via* construction (Janjua et al., 2016). The official erection and construction industry in Nigeria has emerged as the prominent industry servicing all segments of the Nigerian economy with respect to the Cement production, and usage is forecast to expand, given the fact that over the last few years, the cement industry in Nigeria has experienced immense expansion. In Q1 2019, cement in the manufacturing sector rose by 2.81 per cent from 0.98 per cent in Q4 2018 and 8.14 per cent in Q3 2018 (NBS, 2019). However, the perpetuation of an establishment (cement firm) hinges on the capability, proper planning and effect capital use or monetary administration function which is paramount for managing the business industry and economic forces for a healthy and competitive manufacturing (cement) industry in Nigeria(Mohammed & Abosede, 2019). Hence liquidity and profitability as regards to financial performance are mandatory in this sub-industry.

In the success of non-financial firms such as in the cement industry, liquidity plays an important role. Liquidity includes meeting commitments as they fall due and finding some kind of harmony between short term resources and short-run liabilities (Ashok, Namita & Chaitrali, 2018). Peavler (2017) likewise depicts liquidity as how much a resource or investment can be purchased or traded without influencing the valuation of the asset. Organizations are stressed as a result of diminishing liquidity which can lead to or be caused by a decline in operating capital (Yusheng, Mohammed & Andrew, 2019). This is on the grounds that either lacking cash reserve

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or abundance cash inflow might be harmful to the coordinated running of the firm (Ben-Caleb, Olubukunola & Uwuigbe, 2013; Mueller, 2018). In corporate finance, Liquidity and liquidity management are considered to a prodigious level, the profitability and development of cement companies (Khan & Abdul, 2015). Liquidity can be said to offset current financial liabilities of companies.

Statement of the Research Problem

Over the years, the output of the Nigerian manufacturing sector has been deteriorating. Since the early 1980s, this downward tendency has been evident (Manufacturers' Association of Nigeria, 2014). The cement industry has been shrinking in the past few years with the merger of Cement Company of Northern Nigeria (CCNN) and BUA cement in 2019 (PROSHARE, 2020). Just the listed organizations, for example, WAPCO, BUACEMENT and DANGCEM can raise capital investments from the public yet such cash flow is regularly insufficient to meet the consistently developing requirements of their concrete business (Proshareng, 2008; NSE, 2020). Weak and inefficient handling of working capital contributes to locking up the resources in unused assets and lowers an enterprise's liquidity and profitability (Mohammed & Abosede, 2019).

Many local manufacturing firms operate under the tough business environment in Nigeria for instance, difficulty in accessing funds and inflated interest rates on bank loans, inter alia market killer factors impairing the sectorial growth (Salawu & Alao, 2014). In order to optimize viability and liquidity, the analysis by (Abdulazeez, Baba, Fatima & Abdulrahaman, 2018) claimed that the essence of liquidity management is to ensure careful administration of existing assets and recent liabilities. Most of the firms in the consumer goods segment, however, folds up within the first five years, primarily due to inadequate management of working resources, poor management skills, and lack of access to sufficient capital (Ademola & Adegoke, 2017) likewise the industrial good manufacturing firm. Weak working capital management not only leads to insufficient funds and performance but also triggers crises, and an organization inevitably winds up (Padachi, 2006; cited in Ademola & Adegoke, 2017). The appropriate time frame within which liquid assets would be converted into cash to positively impact financial performance remains a bone of contention to every individual firm. This is dependent on the feature and business scale, production cycle, business variances, manufacturing strategy, credit guidelines, and development and extension exercises of the organizations, which changes over time (Samuel & Abdulateef, 2016). For any industrial goods company to remain in business, profitability and liquidity management is mandatory.

Aside from the reasonable and consistent components debated so far, the situating of this examination is inspired by three centre variables in the academic and agency articles, outstandingly: (i) the significance of improving firm financial performance in the light of the policy syndrome of liquidity management in the cement industry. (ii) The determinants of liquidity (iii) deficiencies in existent contemporary articles. These persuasive components are extended below in similar order.

In addition, different studies attempt to decide the effect of liquidity control claims on monetary efficiency of firms across the globe. Ben-Caleb, Olubukunola & Uwuigbe (2013) found an insignificant negative relationship. Yusheng, Mohammed & OseiAgyemang (2019) found liquidity had a huge association with the organizations' money related exhibition as estimated by asset earnings. Mohammed & Abosede (2019) concluded that the influence of operating capital administration on financial viability and financial performance of consumer goods corporation either positively or negatively would depend on how effective and efficient the working capital has been managed. Current liquidity and acid test proportions have a positive and huge impact on the benefit of drug organizations estimated by asset returns, while controls such as leverage, firm size and age negatively affect the productivity of drug organizations (Yameen, Farhan & Tabash, 2019). Liquidity proportions estimated by the current proportion, Quick proportion, Fund Flow proportion sales progression and scale of the firm have

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a positive and huge relationship with asset returns, while liability proportion has a negative interaction with asset earnings in the cement firm in Pakistan (Khan & Abdul, 2015). The variation in impact could be as a result of the individual firm or industry effects, which is an indication that choosing a particular industry and adopting a more robust tool of analysis would yield a better result.

Secondly, as explained in the subsequent segment, the existing hypothetical and experimental literature comprehensively concedes to the significance of liquidity and its determinants. Al-Homaidi, Tabash, Al-Ahdal, Farhan & Khan, (2019) revealed the interior factors of liquidity, and results reveal that size of the firm, leverage ratio ., asset return proportion, and firm maturity are establish to have a huge complementary relationship with corporate liquidity, apart from the proportion of leverage and firm maturity, which has an adverse influence with company's liquidity. Focusing on the internal determinants of corporate liquidity (Mihajlov & Malenović, 2015) found that most significantly organizational scale of operations, leverage and component of capital are factors of corporate liquidity

Against this foundation, the contemporary articles on liquidity have not analysed the issue articulation in this investigation. With the corresponding research question of the extent liquidity affect firm performance evaluating the publicly listed Nigeria cement companies? The current investigation is situated on the evaluation of the influence of liquid cashflow on the money related efficiency of listed Nigerian cement companies as a great majority of empirical studies are related to manufacturing industries (Akinleye & Ogunleye, 2019; Bibi & Amjad, 2017), consumer goods companies (Mohammed & Abosede, 2019), pharmaceutical companies (Yameen et al., 2019), banking industry (Chen, Yang & Yeh, 2017). This study aims to fill the void by undertaking an analytical review of firm-specific variables such as firm performance using both enterprise value and accounting-based measures. TobinQ to capture enterprise value, which is measured using The book value of the net assets minus the book value of the equity plus the market price of the equity all split by the book amount of the total assets. Accounting-based performance using the Return on Asset, which is the periodic earnings relative to the total asset used to generate operating cash flow. Based on relevant data extracted from quoted cement firms in Nigeria between 2010-2019.

It should be noted that the other part of the research is structured accordingly: the subsequent part discusses prior studies on liquidity and corporate financial performance. The second part exhibits the research data and method. The third part entails the empirical findings and discussion, while the conclusion would be found in the fourth part of the study.

THEORETICAL FRAMEWORK

Theory of Firm Liquidity Demand

This is focused on the premise that liquidity options will rely on the accessibility of companies to money markets and the relevance of potential venture outlays to companies (Panigrahi, 2013; Ally, 2017; Peavler, 2017; Ashok, Namita & Chaitrali, 2018). The framework assumes that a positive allocation of marginal revenue will be saved by financially constrained companies, while the firm with surplus liquid assets may not find it necessary to save (Panigrahi, 2013; Ally, 2017; Peavler, 2017; Ashok, Namita & Chaitrali, 2018)The theoretical assumption also reveals that businesses with large cash reserves (liquid assets) exploit accessible savings, cash discounts and low investment interest rates (Panigrahi, 2013; Ally, 2017; Peavler, 2017; Ashok, Namita&Chaitrali, 2018). Cash reserves and investment prospects are also related to financial success (Panigrahi, 2013; Ally, 2017; Peavler, 2017; Ashok, Namita & Chaitrali, 2018).

Conceptual Framework

Liquidity and Liquidity Management

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Management of Liquidity has been a sensitive zone of attention to the corporations' boards such as the cement companies due to the feature of the uncertainty of projected business and macroeconomic environment. Moreover, the company owners and executives around the world are obsessed with creating a plan to handle their recurrent activities in order to satisfy their responsibilities as they are due to increase profits and the equity of stockholders (Samuel & Abdulateef, 2016). It includes managing and monitoring short term assets and obligations in such a manner as to i) reduce the possibility of failing to fulfil mature short-period commitments; and (ii) prevent undue financing on current assets (Priya & Nimalathasan, 2013).

Liquidity points out to the ability of firms in paying back their short term liabilities which is an important role in smoothening all operations of a firm (Yameen et al., 2019). Liquidity ratios are never employed strictly, but within the liquidity governance support framework in each organization. Liquidity is calculated using the current, liquidity and acid ratio method to determine the impact on enterprise profitability efficiency (Janjua et al., 2016). The quick ratio and current ratio are considered to be the common measures of the liquidity position of a company (Yameen et al., 2019). Generally, when the current ratio is high, it can be said that the enterprise's capacity to remit back its medium-range obligations is good, whereas quick ratio sets the correlation between current liabilities and current assets. It can also be observed that working capital also refers to liquidity (Ben-Caleb, 2013). Liquidity control largely defines the amount of benefit resulting as well as the worth of the capital of shareholders (Ben-Caleb, 2008). As a corporation must stay liquid in order to exist since the inability to satisfy its duty at the maturity date results in high loan risk scores from short-run lenders, and a drop in the valuation of credibility which can eventually lead to illiquidity and organizational shutdown (Bhavet, 2011). Therefore, in order to fulfill the short-range maturing commitments without harming performance, a robust and strong monetary administration guideline aims to retain sufficient liquidity (Ben-Caleb, 2013).

Liquidity and Firm Performance

The performance level of a corporation signifies the efficiency of the firms' operations with regards to acquiring beneficial information about the company's cash and fund balance, fund use, performance, and effectiveness (Matar & Eneizan, 2018) which can aid financial decision making. However, while financial proportion formulae are the techniques frequently used to assess firm performance, there is no obvious method of reasoning which would enable one to obtain a composite score on the altogether money related soundness of a firm (Madanoglu, Kizildag & Ozdemir, 2018). It can be asserted that there are different sorts of business performances which are economical and non - monetary (Obaid, Eneizan, Abd-Wahab & Zainon., 2016). Two expansive methodologies are commonly utilized in writing to clarify corporate performance, and they are structural and non-structural. Non-structural methodologies pick distinctive performance measures (for example ROE, ROA, Tobin's q-ratio etc.), and clarify these measures by an arrangement of firm peculiar or institutional components. Basic or structural methodologies depend on hypothetical models of innovative conduct, for example, licenses, level of inventive deals (Cloodt, Hagedoorn & Van Kranenburg, 2006) which may enhance cost minimization or profit optimization (Hughes & Mester, 2013). Cost minimization is a basic rule used by manufacturing sector corporations to produce output at the lowest cost and this influences profit maximization and organizational performance in general.

A negative association between liquidity and business viability and efficiency is demonstrated by empirical data, but an organization cannot work with nil liquidity to maximize its profits (Khan, 2015). Figure 1 illustrates this linkage; the rise in liquidity contributes to profit enhancement (line AB) up to a particular stage where there is an additional boost in liquidity; monetary performance stays stable (line BC); any more rise in liquidity would result to a decline in profit viability (line CD) above that point.

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Firm Performance

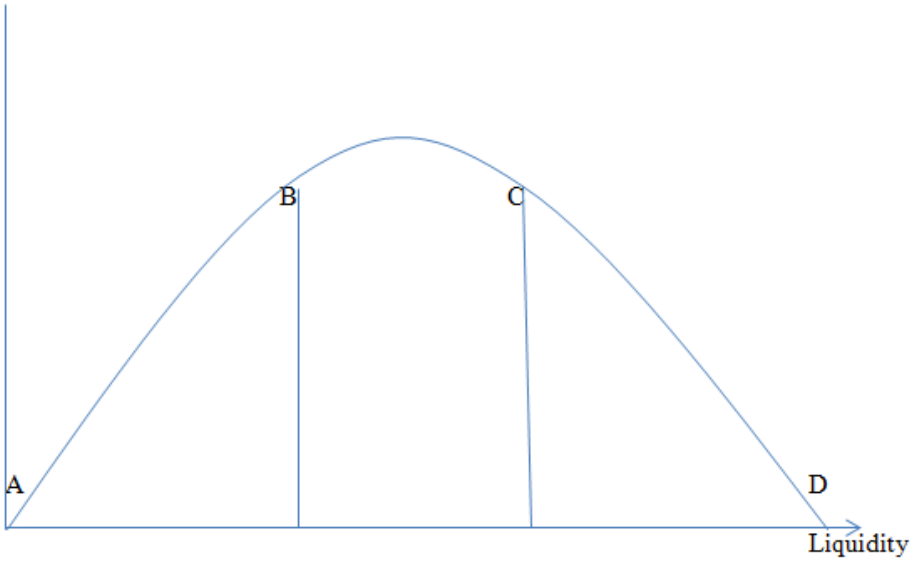

FIGURE 1
RELATIONSHIP BETWEEN LIQUIDITY AND FIRM PERFORMANCE

Source: Mahavidyalaya & Ray (2012).

Empirical Review or Review of Previous Studies

Egbide, Olubukunola & Uwuigbe (2014) evaluated liquidity administration and Nigerian manufacturing firms' profitability. The primary purpose of the inquiry was to analyze the interaction regarding profitability and liquidity. The study is focused on a survey of 30 industrial firms registered for the duration 2006-2010 on the NSE (Nigerian Stock market).The finding indicates that profitability is complimentarily interrelated with the current proportion and liquid proportion, while cash regeneration cycle has a negative coefficient in relation to the financial bottom line. Kaya (2015) suggested that the business size, company age, the proportion of the loss, current proportion and rate of premium growth are the company-specific determinants affecting Turkish financial success firms. Akenga (2017) found that with a substantial 5 per cent (p-value <0.05) level, current ratio and money reserves have a substantial effect on asset returns (ROA). It has been shown that the debt ratio has no major effect on ROA. Hamidah & Muhammad (2018) disclosed that the success of businesses is closely correlated with liquidity ratio, debt ratio, and profitability.

Ali & Bilal (2018) explored the variables of the monetary efficiency of 23 producing corporations recorded on the Amman Stock market. Auxiliary information for the time frame 2005 to 2015 was utilized for the examination. From the examination's regression outcome, liquid asset administration had a robust complementary outcome on the organization's finance-related efficiency as estimated by asset earnings. For the period eleven years, Ayako, Githui & Kungu (2015) examined the factors of the monetary efficiency of non-money-related companies recorded on the Nairobi Stock market with board data for 41 companies. From the investigation's numerous regression results, liquidity was measurably immaterial in clarifying the organizations' monetary appraisal. Isik (2017) investigated on the profit viability variables of firms in the real sector recorded on the Borsa Istanbul Stock market, cross-sectional data from 153 recorded corporations for the time mark of 8 years was utilized for the investigation. From the examination's discoveries, the amount of liquid asset was a critical factor of the organizations' financial productivity as estimated by earnings of the asset.

Onyekwelu, Chukwuani & Onyeka (2018) published a liquidity impact examination on the financial viability of Nigerian deposit cash banks. For the exploration, auxiliary data gathered from a review of five banks were employed for the period 2007 to 2016. From the

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regression analysis (multivariate) of the research, liquidity had a significant beneficial outcome on the monetary performance of the banks as determined by ROCE. Kanga & Achoki (2017) took a gander at the impact of liquidity on the monetary results of agro-allied organizations recorded on the stock market of Nairobi (NSE). For the examination, auxiliary data gotten from the inspected yearly reports of recorded rural organizations for the period 2003 to 2013 were employed. From the examination's pooled conventional least square analysis of regression, liquidity had a critical beneficial outcome on the money related yield of firms as determined by equity earnings and asset earnings, yet a minute complimentary effect on the EPS of firms.

Saripalle (2018) investigated the factors of benefit in the Indian industry of cargo. Entity-scope information from 201 organizations was utilized for the examination. Assessments from the article's economics statistical framework gave proof of liquid asset being a critical determinant of the organizations' productivity as estimated by ROA. Swagatika & Ajaya (2018) investigated the variables of profit viability in Indian's assembling entities. Research information representing the ex and post-emergency time frames from 2000 until 2015, was utilized for the research. From the investigation's outcomes, liquidity impacted the organizations' bottom line as estimated by NPM and asset earnings. Guruswamy & Marew (2017) evaluated the financial benefit elements of a sample of life security organizations in Ethiopia. A cross-sectional statistics obtained from the central bank of Ethiopia and the finance bureau and financial institutions was utilized for the examination. Implementing the descriptive statistics of regression and correlation examination, the investigation uncovered an inconsequential relationship between liquid asset and the organizations' benefit. Hamidah & Muhammad (2018) contemplated the impact of liquidity, benefit, and leverage on the financial efficiency of organizations in Malaysia. Information gotten from 21 organizations for the time frame of 2010 to 2014 was utilized for the investigation. From the investigation's correlational outcomes, liquidity, as estimated by the current proportion, had an essentially sure association with the organizations' asset returns, while a considerably affirmative impact of the level of liquid assets on the organizations' money related viability was found from the examination's multivariate analysis of regression. A research was conducted by Irm, Priyarsono & Tria (2017) to explore entity-explicit and policy economic factors that decide the productivity of Indonesian insurance firms. For the analysis, group data covering the years 2010 to 2014 was used. From the results of the report, the liquidity proportion had a major complementary impact on the benefit of the businesses.

It is clear from the review of prior works that the effect of liquid asset reserve on monetary results is inconclusive. The present thesis attempts to widen this topic by ascertaining the influence of liquidity on the monetary output of cement entities listed in Nigeria.

Sample

Data

To test the objective, the study analyzed a sample of listed cement firms on the Nigerian stock exchange. The research extracted a total of 40 observations, which comprise of 4firms (Dangote, Lafarge, BUA cement and WAPCO) over a 10-year period (2011-2019). The liquidity and financial output metrics of the companies were then determined using the financial statements of sampled firms and Nigerian stock exchange website using various measurements or formulas.

Measures

Explanatory Variable of Liquidity

This study measured liquidity with the use of current ratio, quick ratio, leverage ratio and cash flow ratio. Kanga & Achoki (2016) Kanga & Achoki (2016) employed the current ratio as

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liquidity metric in the study of liquidity and financial results in Kenya's NSE-listed agrarian firms. Prior studies such as (Kong, Musah & Agyemang, 2019) has established the influence of cash flow ratio and quick ratio on firm performance. The debt to equity ratio was determined by leverage. By dividing total liabilities by total equity, the debt to equity ratio was calculated. In assessing the effect of financial leverage on financial efficiency, Rajkumar (2014) used debt to equity ratios as a metric of leverage.

Dependent Variable of Firm Performance

We measure firm performance using both enterprise value and accounting-based measures. Enterprise value reflects the satisfaction of returns received by stakeholders such as employees, management, shareholders, creditors, public and government under value-focused management (Liu & Zhang, 2017). We select Return on Equity measured by Profit after Taxation divided by Total Equity of the firm and TobinQ to capture enterprise value, which is measured using the book value of total assets minus the book values of equity plus the market value of equity all divided by the book value of total assets. We measure accounting-based performance using the Return on Asset, which is the periodic earnings relative to the total asset used to generate operating cash flow.

Control Variables

This study control for firm characteristics such as the inflation rate, interest rate, firm age and size. Some studies note that firm age and size is directly associated with firm performance (Yameen et al., 2019). This study measured firm age as Natural Logarithm of Year under observation less Year of Listing on Nigerian Stock Market. Firm size was measured as the natural logarithm total assets of the firm. Furthermore, in this research, the external factors are regarded such as rate of inflation and interest rate which is consistent with (Al-Homaidi et al., 2020) and obtained from the world bank database.

METHODOLOGY

To test the formulated objective, multiple linear regression tests will be used in this research to scrutinize the influence of liquidity management and firm performance in the cement industry. Static regression estimators such as fixed and random effect will be used. The fixed effect and random effects are more suitable for static panel data. The error term of the fixed effect specification assumes a constant variance over time and serially uncorrelated, while the random effect specification controls for heterogeneity (Boudriga et al., 2010). This study will then apply the Hausman test to select the most suitable estimators between fixed and random effects. The regression model is stated below:
Static Regression Model

$$Perf_{i,t}=\beta_{0+}\beta_1 CR_{i,t+}\beta_2 QR_{i,t+}\beta_3 CFR_{i,t}+\beta_4 FS_{i,t}+\beta_3 AGE_{i,t}+\beta_5 INF_{i,t}+\beta_6 MPR_{i,t}+\varepsilon_{it}$$

Where:

t=The annual year for firm i
Perf=Financial performance proxied by Return on Asset (net profit after tax/ shareholders' equity); Return of Equity (net profit after tax/ total assets); Return on Capital Employed (profit before interest and tax/capital employed); Leverage (Total Debt/Total Common Equity) TobinQ (market value equity/book value of the total asset)
CR=Current Ratio proxied by (current asset/current liability)
QR= Quick Ratio proxied by ((current asset-inventory)/current liability)
CFR=((revenue-operating expenses)/current liability)

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LnFS= The natural logarithm total assets of the firm
AGE= Year under observation less Year of Listing on Nigerian Stock Market
INF= Inflation rate
MPR= Monetary Policy Rate

Table 1
DESCRIPTIVE STATISTICS

Variable	Obs	Mean	S.D	Min	Max
ROA	40	0.1291209	0.0815853	-0.02146	0.279595
TobinQ	40	0.5884855	0.5451061	0.052937	2.600901
ROE	40	0.3444204	0.1421822	-0.05634	0.649819
ROCE	40	0.2298193	0.1427448	-0.03359	0.525598
Leverage	40	0.96123	0.5479091	0.252187	2.400744
Independent Variable					
Cash Flow Ratio	40	0.8933038	0.5987128	-1.58167	1.840845
Current Ratio	40	1.167442	0.5849248	0.304269	2.368281
Quick Ratio	40	0.8179802	0.4962576	0.13674	1.794318
Control Variable					
LnFirm Size	40	8.395342	0.4423254	7.794446	9.261021
Firm Age	40	38.5	23.155	6	70
Inflation Rate	40	11.8	2.768689	8.1	16.5
Monetary Policy Rate	40	0.1185	0.026219	0.06	0.14

Source: EViews output

EMPIRICAL RESULTS

Results Presentation and Discussion

This section details the findings from table 1 to 6 and discussions. Table 1 contains the descriptive statistics of variables. From the table, ROA has a mean value of 0.1291209, which depicts that on the average the total asset of the firms generated 12.9 kobo of net income. The positive mean of ROA indicates that management was efficiently utilizing firm assets to yield revenues and profits. This serves as a favorable sign since they are sure to get a return on their investments, which serves as a favorable indicator for future investors.

The equity earnings of the entity had a mean worth of 0.3444204. This explains that on the midpoint for every Naira of ordinary shareholders' value 34.44 kobo of net revenue. The affirmative coefficient of equity earnings indicates the corporate boards were competently investing investor's funding to create profit and revenue. The value also indicates an effective utilization of the retained earnings.

TobinQ of the entities has an average worth of 0.5884855. This explains that the replacement cost of the firms' assets is greater than the value of its stock. In other words, the market value of the stock is undervalued. Therefore this can be a good investment trait for the investor as there is room for further growth in equity value.

The positive ROCE average figure (0.2298) it demonstrates that just as their long-haul funding policies, the businesses used their employed capital effectively. However, the yield on the ratio of capital invested must still be greater than the cost at which companies invest to finance their investment asset.

The leverage ratio generally indicates the extent of debt capital used to finance growth. The Average value of 0.96123 depicts that the firms have progressively been financing their investment with debt which can make earning volatile. However, manufacturing firm such as in

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the cement segment may need to secure more loans as compared to other companies due to large capital expenditure.

The CFR aimed to calculate how much the company' existing obligations were protected by the cash flows created by the activities of the corporation. The companies' CFR had an estimated valuation of 0.893, and the existing liabilities of the companies could not be offset during the duration by the cash generated by their activities. However, since not all small working cash flow rates are indicators of bad monetary performance, there may be multiple explanations of the mean level. For example, companies may have funnelled their monetary resources in investments provide higher benefits at the stipulated maturity date.

The companies' CR sought to evaluate the capacity of the businesses to satisfy their short-run debts. From the findings, the companies' CR had an overall assessment of 1.167. The average CR estimate is also an indicator that the companies' operational sequence effectiveness was not too good or that the companies were unable to translate their goods into much cash.

The average QR valuation of 0.8179802 suggests that the entities were not sufficiently furnished with enough funds that could be converted quickly to balance their existing liabilities. In other terms, the corporations were operating with a high payable period.

The analytical inferences of the panel data analysis (fixed and random effect regression) are expressed in Table 2 to 7. Table 2 explains the relationship between the liquidity management indicators and leverage ratio, which measures firm performance. Table 2 expresses the outcome of fixed and random effect regression. Moreover, the Hausman test suggests that fixed outcome regression is more fitting for inference of the result at a p-value of 0.00 with R^2=0.441. This means that encompassing both control variables and the liquidity management proxies explain 44.1% of the leverage ratio of the selected firms. From the table, the current ratio has a considerably negative association with the financial viability indicator (leverage) at 1% significance level. Also, cash flow ratio has a negative coefficient in association with leverage ratio; however, insignificant like the quick ratio which has a positive effect on leverage ratio. As for the control variables, only the firm size has a significantly positive coefficient. In line with this research Al-Homaidi, Tabash, Farhan & Almaqtari (2018) who revealed that profitability was greatly influenced by the leverage ratio. Furthermore, In line with this study, Al-Homaidi, et al., (2020) also discovered an adverse relationship between leverage metric and liquidity.

Table 2
LIQUIDITY MANAGEMENT AND LEVERAGE RATIO

	(1)	**(2)**
Variables (Leverage)	**Fixed Effect**	**Random Effect**
Cash Flow Ratio	-0.109	0.083
	(0.150)	(0.113)
Current Ratio	-1.071***	-1.066**
	(0.159)	(0.471)
Quick Ratio	0.556	0.746
	(0.299)	(0.519)
Lnfirm Size	-1.371**	-1.039***
	(0.307)	(0.304)
Firm Age	0.048	0.003
	(0.024)	(0.004)
Inflation Rate	0.048	0.061***
	(0.025)	(0.023)
Monetary Policy Rate	-0.849	2.312
	(0.985)	(1.915)
Constant	11.040**	9.128***
	(2.124)	(2.556)
Observations	40	40
R-squared	0.441	
Number of group Chi-squared (0) Hausman Test	4 0.00	4

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Prob>chi2	0.00	

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3 explains the relationship between the liquidity management indicators and Return on Capital Employed (ROCE) which measures firm performance. Table 3 expresses the outcome of the fixed and random effect regression. Moreover, the Hausman test suggests that fixed outcome regression is more fitting for inference of the result at a p-value of 0.00 with R^2=0.358. This means that encompassing both control variables and the liquidity management proxies explain 35.8% of the ROCE of the selected firms. From the table, cash flow ratio has a negative coefficient in association with ROCE at a significance level of 5%. The quick ratio also has a negative relationship with ROCE; however insignificant the result is quite similar to the current ratio with a positive insignificant coefficient. This result is in tandem with Ben-Caleb, (2013) who found that CR has a positive and significant association with ROCE.

Table 3
LIQUIDITY MANAGEMENT INDICATORS AND RETURN OF CAPITAL EMPLOYED (ROCE)

	(1)	**(2)**
Variables (ROCE)	**Fixed Effect**	**Random Effect**
Cash Flow Ratio	-0.046**	0.050
	(0.013)	(0.064)
Current Ratio	0.136	0.159
	(0.134)	(0.136)
Quick Ratio	-0.027	-0.098
	(0.149)	(0.178)
Lnfirm Size	0.435	-0.021
	(0.509)	(0.055)
Firm Age	-0.048	-0.002
	(0.035)	(0.002)
Inflation Rate	-0.003	0.002
	(0.004)	(0.003)
Monetary Policy Rate	0.395	-0.428
	(0.391)	(0.873)
Constant	-1.679	0.370
	(3.006)	(0.471)
Observations	40	40
R-squared	0.358	
Number of group Chi-squared (0) Hausman Test Prob>chi2	4 0.00 0.00	4

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4 explains the relationship between the liquidity management indicators and Return on Assets (ROA) which measures firm performance. Table 4 expresses the outcome of fixed and random effect regression. Moreover, the Hausman test suggests that fixed outcome regression is more fitting for inference of the result at a p-value of 0.00 with R^2=0.442. This means that encompassing both control variables and the liquidity management proxies explain 44.2% of the ROA of the selected firms. From the table, cash flow ratio and the quick ratio has a negative insignificant coefficient in association with ROA. While the current ratio has a positive although the insignificant relationship with ROA. This finding is consistent with Batchimeg (2017); Guruswamy & Marew (2017) revealing in their study the inconsiderable connection between liquidity and the organisations' monetary appraisal as estimated by earnings from the asset. The research, undertaken by Majumder & Uddin (2017) lastly revealed an unfavourable

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association between the level of liquid assets and the monetary viability of the domestic banks in Bangladesh proxied by asset earnings.

Table 4
LIQUIDITY MANAGEMENT VARIABLE AND RETURN ON ASSET (ROA)

	(1)	(2)
Variables (ROA)	**Fixed Effect**	**Random Effect**
Cash Flow Ratio	-0.022	0.041
	(0.010)	(0.043)
Current Ratio	0.092	0.026
	(0.046)	(0.049)
Quick Ratio	-0.005	0.029
	(0.043)	(0.045)
LnFirm Size	0.145	0.073
	(0.180)	(0.049)
Firm Age	-0.020	-0.001
	(0.012)	(0.001)
Inflation Rate	-0.004	-0.003**
	(0.002)	(0.001)
Monetary Policy Rate	0.436	-0.759**
	(0.278)	(0.312)
Constant	-0.386	-0.413
	(1.064)	(0.409)
Observations	40	40
R-squared	0.442	
Number of group Chi-squared (0) Hausman Test Prob>chi2	4 0.00 0.00	4

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5 explains the relationship between the liquidity management indicators and Return on Equity (ROE) which measures firm performance. Table 5 expresses the outcome of fixed and random effect regression. Moreover, the Hausman test suggests that fixed outcome regression is more fitting for inference of the result at a p-value of 0.00 with R^2=0.506. This means that encompassing both control variables and the liquidity management proxies explain 50.6% of the ROE of the selected firms. From the table, cash flow ratio has a negative coefficient in association with ROE at a significance level of 5%. Also, the current ratio has a negative effect on ROE; however, the coefficient is insignificant. The quick ratio has a positive insignificant relationship with ROE. This result is in tandem with (Gupta &Randhawa, 2018) CR has a negative significant effect on profitability. In corroboration with this result, liquidity management has an insignificant negative impact on ROE (Samuel &Abdulateef, 2016).

Table 5
LIQUIDITY MANAGEMENT VARIABLES AND RETURN ON EQUITY (ROE)

	(1)	(2)
Variables(ROE)	**Fixed Effect**	**Random Effect**
Cash Flow Ratio	-0.061**	-0.010
	(0.013)	(0.033)
Current Ratio	-0.014	0.030
	(0.204)	(0.250)
Quick Ratio	0.163	-0.011
	(0.172)	(0.279)
Ln Firm Size	0.748	0.014
	(0.529)	(0.053)
Firm Age	-0.075	-0.000
	(0.039)	(0.001)

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Inflation Rate	-0.004	-0.001
	(0.006)	(0.008)
Monetary Policy Rate	-0.667	-2.691**
	(0.846)	(1.149)
Constant	-2.983	0.532*
	(3.155)	(0.322)
Observations	40	40
R-squared	0.506	
Number of group Chi-squared (0) Hausman Test Prob>chi2	4 0.00 0.00	4

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 6 explains the relationship between the liquidity management indicators and enterprise value (TobinQ) which measures firm performance. Table 6 expresses the outcome of fixed and random effect regression. Moreover, the Hausman test suggests that fixed outcome regression is more fitting for inference of the result at a p-value of 0.00 with R^2=0.429. This means that encompassing both control variables and the liquidity management proxies explain 42.9% of the TobinQ of the selected firms. From the table, the liquidity variables are insignificant. However, the proportion of cash flow and proportion of operating capital proportion has a negative coefficient in association with TobinQ. The quick proportion shows a complimentary insignificant association with TobinQ. The positivity of the QR is in tandem with Yusheng, Mohammed & Andrew, (2019) whose study depicted an insignificant positive relationship between QR and equity value. An inconsiderable interaction between liquidity and the financial viability of the organizations was noticed by Ologbenla (2018), whose analysis of 5 insurance firms quoted on the Stock market of Nigeria.

Table 6
LIQUIDITY MANAGEMENT VARIABLE AND TOBINQ

	(1)	**(2)**
Variables (TobinQ)	**Fixed Effect**	**Random Effect**
Cash Flow Ratio	-0.005	0.337
	(0.072)	(0.251)
Current Ratio	-0.568	-1.073
	(0.587)	(0.995)
Quick Ratio	0.864	1.408
	(0.659)	(0.890)
Logfirm Size	-0.671	0.170
	(1.155)	(0.425)
Firms Age	0.001	-0.008
	(0.050)	(0.007)
Inflation Rate	-0.000	0.006
	(0.008)	(0.013)
Monetary Policy Rate	-3.151	-7.001
	(1.893)	(5.634)
Constant	6.537	0.039
	(8.656)	(4.176)
Observations	40	40
R-squared	0.429	
Number of group Chi-squared (0) Hausman Test Prob>chi2	4 0.00 0.00	4

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

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SUMMARY AND CONCLUSION

The purpose of this research was to discover the interaction between the liquidity and financial results of the Nigeria Stock Exchange (NSE)-listed cement companies. For the analysis, panel data derived from the audited annual statement of 4 listed cement entities were used for the periodicity of 10 years (2010-2019). In the report, companies ' financial efficiency was calculated by Assets earnings (ROA), Equity earnings (ROE) and earnings on capital used (ROCE), debt ratio, and TobinQ, while proxy liquidity was assessed using the operating capital proportion (CR), Acid test proportion (QR) and proportion of Cash Flow (CFR). The liquidity control metrics had a major association with financial performance as calculated by debt, ROCE and ROE from the fixed impact regression. The liquidity metric has an inconsequential relationship with ROA and TobinQ.

The report concludes that the investments of cement companies in liquid assets are inevitable in order to guarantee the transmission of products to their potential customers, and adequate control of them can help them achieve their anticipated goal of accumulating wealth in good liquidity positions. This will lengthen their cash operating cycle if the funds of the entities are obstructed at the various levels of the supply chain. While this could improve their profitability due to the increase in revenue, on the other hand, if the expenses knotted up in operating capital outweigh the benefits of keeping more inventories and/or giving more sales credits to consumers, it could also adversely impact their profitability.

RECOMMENDATIONS

The study suggests that influences such as cyclical fluctuations in demand, company structure, production cycle, and technical changes may have a larger effect on the profitability of corporations. Therefore, businesses should take into account these considerations in their corporate decisions. It is also advised that cement companies registered on the Nigeria Security market should schedule their operations and retain sufficient capital in line with their projected amount of sales, so that they can bargain well when making cash transactions, thus minimizing costs. Finally, within the same manufacturing cycle, cement firms should transform their cash flow from activities. If this is not conceivable, in order to meet the indistinguishable targets of sustainability and liquidity, enterprises can need to leverage debt to supplement their recurrent working capital needs. In short, if the corporations are able to follow the guidelines presented in this report, they will undoubtedly see an increase in their positions in working capital, and with better positions in operating capital, the companies will be able to leverage their capability.

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REFERENCES

Abdulazeez, D.A., Baba, N.A., Fatima, K.R., & Abdulrahaman, Y. (2018).Working capital management and financial performance of listed conglomerate companies in Nigeria.

Abimbola, O.A., &Kolawole, O.A. (2017). Effect of working capital management practices on the performance of small and medium enterprises in Oyo state, Nigeria. *Asian Journal of Economics, Business and Accounting*, 1-8.

Akenga, G. (2017). Effect of liquidity on financial performance of firms listed at the Nairobi Securities Exchange, Kenya. *International Journal of Science and Research (IJSR), 6*(7), 279-285.

Akinleye, G.T., & Ogunleye, J.S. (2019).Liquidity and the profitability of manufacturing firms in Nigeria, *5*(2), 68–73. https://doi.org/10.11114/afa.v5i2.4477

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Al-Homaidi, E.A., Tabash, M.I., Al-Ahdal, W.M., Farhan, N.H.S., & Khan, S.H. (2020). The liquidity of Indian firms: Empirical evidence of 2154 firms. *Journal of Asian Finance, Economics and Business, 7*(1), 19–27. https://doi.org/10.13106/jafeb.2020.vol7.no1.19

Ali, M., & Bilal, M.E. (2018). Determinants of financial performance in the industrial firms: Evidence from Jordan. Asian Journal of Agricultural Extension, *Economics & Sociology, 22*(1), 1-10.

Ally, B. (2017). How financially agile are you? Retrieved from https://www.ally.com/do-it-right/money/liquid-assets-the-importance-of-financial-liquidity/

Ashok, K.P., Namita, R., & Chaitrali, G. (2018). Liquidity and profitability trade-off: A study of Indian pharmaceutical companies. *NMIMS Journal of Economics and Public Policy, 3* (1), 42-56

Ayako, A., Githui, T., & Kungu, G. (2015). Determinants of the financial performance of firms listed at the Nairobi Securities Exchange. Perspectives of Innovations, *Economics and Business, 15*(2), 84-94.

Batchimeg, B. (2017). Financial performance determinants of organizations: The case of Mongolian companies. *Journal of Competitiveness, 9*(3), 22-33, ISSN: 1804-171X (Print), ISSN: 1804- 1728 (On-line), DOI: 10.7441/joc.2017.03.02

Ben-Caleb, B.C. (2013). Liquidity management and profitability of manufacturing companies in Nigeria. *IOSR Journal of Business and Management, 9*(1), 13–21. https://doi.org/10.9790/487x-0911321

Ben-Caleb, E. (2009). Working capital management and profitability of listed companies in Nigeria. *Nigeria Research Journal of Accountancy, 1*(1) PP 44-57

Bhavet. (2011). Management of liquidity: A case study of Tisco Ltd. *International Journal of Research in IT & Management 149 IJRIM, 1*(2) (ISSN 2231-4334)

Bibi, N., & Amjad, S. (2017). The relationship between liquidity and firms' profitability: a case study of Karachi stock exchange. *Asian Journal of Finance & Accounting, 9*(1), 54. https://doi.org/10.5296/ajfa.v9i1.10600

Chen, R.R., Yang, T.H., & Yeh, S.K. (2017). The liquidity impact on firm values: The evidence of Taiwan's banking industry. *Journal of Banking and Finance, 82*, 191–202. https://doi.org/10.1016/j.jbankfin.2016.07.003

Cloodt, M., Hagedoorn, J., & Van Kranenburg, H. (2006). Mergers and acquisitions: Their effect on the innovative performance of companies in high-tech industries. *Research policy, 35*(5), 642-654.

Egbide, B.C., Olubukunola, U., & Uwuigbe, U. (2013).Liquidity management and profitability of manufacturing companies in Nigeria. *IOSR Journal of Business and Management, 9*(1), 13-21.

Eneizan, B.M., & Wahab, K.A. (2015). Effects of green marketing strategy on firm performance. Advances in Global Business Research.USA,*12*(1).

Equities price list | The Nigerian stock exchange. (2020). Retrieved from https://www.nse.com.ng/market-data/trading-statistics/equities

Guruswamy, D., & Marew, A. (2017). Determinants of profitability performance of insurance companies: A case study of selected insurance companies in Ethiopia. *i-manager's Journal on Management, 12*(2), 26-44. https://doi.org/10.26634/jmgt.12.2.13722

Gupta, A., & Randhawa, G. (2018). Financial performance of sugar mills in Punjab: a Comparative Study. *Indian Journal of Accounting (IJA) ISSN, 50*(1), 87–96. Retrieved from http://punjabsugarfed.in

Hamidah, R., & Muhammad, K.H.B.N. (2018). The effect leverage, liquidity and profitability on the company's performance in Malaysia. *Journal of Humanities, Language, Culture and Business (HLCB), 2*(7), 9-15.

Hughes, J.P., & Mester, L.J. (2013). Measuring the performance of banks: Theory, Practice, Evidence, and Some Policy Implications.*In SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2306003

Irm, O., Priyarsono, D.S., & Tria, A. (2017). Firm specific factors and macroeconomic determinant of life insurance companies' profitability in Indonesia. *International Journal of Science and Research (IJSR), 6*(1), 639-644.

Isik, O. (2017). Determinants of profitability: Evidence from real sector firms listed in Borsa Istanbul. *Business and Economics Research Journal (BERJ), 8*(4), 689-698

Janjua, A.R., Asghar, A., Munir, U., Raza, A., Akhtar, N., & Shahzad, K. (2016). Influence of Liquidity on Profitability of Cement Sector : Indication from Firms Listed © Society for Business and Management Dynamics. 6(5), 1–12.

Kanga, O.S., & Achoki, G. (2017). Liquidity and financial performance in agricultural firms listed in the Nairobi securities exchange in Kenya. *International Journal of Business and Social Science, 7*(7), 57-65.

Kaya, E.Ö. (2015). The effects of firm-specific factors on the profitability of non-life insurance companies in Turkey.*International Journal of Financial Studies, 3*(4), 510–529. https://doi.org/10.3390/ijfs3040510.

Khan, Q.U. (2015). The impact of liquidity management on firm profitability, an empirical analysis of Pakistani cement companies listed on Karachi stock exchange in Pakistan. *Journal of Poverty, Investment and Development, 18*.

Khan, Q.U., & Abdul, W.K. (2015). The impact of liquidity management on firm profitability, an empirical analysis of Pakistani cement companies listed on Karachi Stock Exchange in Pakistan, *18*, 77–92.

KPMG. (2005). Working capital management survey: How European companies manage their working capital. KPMG International. Retrieved from http://www.ch/library/pdf/kpmg_survey_working_capital_management_e.pdf on 20- 01- 2015

Citation Information: Chima, M., Ikpefan, O.A., Osuma, G.O., Fasheyitan, O., & Kehinde, S. (2021). The influence of liquidity on the performance of the Nigerian cement companies. *Journal of Management Information and Decision Sciences, 24*(S1), 1-18.

Liu, X., & Zhang, C. (2017). Corporate governance, social responsibility information disclosure, and enterprise value in China. *Journal of Cleaner Production, 142,* 1075–1084. https://doi.org/10.1016/j.jclepro.2016.09.102

Majumder, T.H., & Uddin, M.J. (2017). The determinants of profitability of nationalized banks in Bangladesh. *International Journal of Economics and Business Research, 13*(4), 335-348.

Madanoglu, M., Kizildag, M., & Ozdemir, O. (2018). Which bundles of corporate governance provisions lead to high firm performance among restaurant firms? *International Journal of Hospitality Management, 72*, 98-108.

Mahavidyalaya, S.S., & Ray, S. (2012). Evaluating the impact of working capital management components on corporate profitability: Evidence from Indian manufacturing firms. *International Journal of Economics Practices and Theories, 2*(3), 127-136.

Matar, A., & Eneizan, B. (2018). Determinants of financial performance in the industrial firms: Evidence from Jordan. *Asian Journal of Agricultural Extension, Economics & Sociology, 22*(1), 1–10. https://doi.org/10.9734/ajaees/2018/37476

Mihajlov, K.D., & Malenović, M. (2015). Corporate liquidity management: Implications and determinants. *Economics and Organization, 12*, 157–170.

Mohammed, S.R., & Abosede, A. (2019). Working capital management and performance of consumer goods companies listed on the Nigerian Stock Exchange, *19*(7).

Mueller, J. (2018). Understanding financial liquidity. Retrieved from https://www.investopedia.com/articles/basics/07/liq uidity.asp#ixzz5WdDY41rG

NBS, (2019), Nigerian gross domestic product report

Nigeria's No1 economy and financial information hub. (2008). Retrieved from https://www.proshareng.com/articles/NSE-&-Capital-Market-/Nigeria-s-Cement-Manufacturing-Industry-Rep/

Obaid, T.F., Zainon, M.S., Eneizan, B.M., & Abd- Wahab, K. (2016). Effects of green marketing strategy on the financial and non-financial performance of firms: A conceptual paper. *Oman Chapter of Arabian Journal of Business and Management Review,5*(12),14-27.

Onyekwelu, U.L., Chukwuani, V.N., & Onyeka, V.N. (2018). Effect of liquidity on financial performance of deposit money banks in Nigeria. *Journal of Economics and Sustainable Development, 9*(4), 19-28

Ologbenla, P. (2018). Impact of liquidity management on the performance of insurance companies in Nigeria. *IOSR Journal of Economics and Finance (IOSR-JEF), 9*(1), Ver. III, 40-45. p-ISSN: 2321- 5925, available on: www.iosrjournals.org

Outcome of the scheme of merger: CCNN and Obu cement now BUACEMENT. (2020, January 9). Retrieved from https://www.proshareng.com/news/Mergers%20&%20Acquisitions/Outcome-of-The Scheme-of-Merger--CCNN-and-Obu-Cement-Now-BUACEMENT/48736

Owolabi, S.A., & Obida, S.S. (2012). Liquidity management and corporate profitability: A case study of selected manufacturing companies listed on the Nigerian stock exchange. *Business Management Dynamics, 2*(2), 10-25.

Padachi, K. (2006). Trends in working capital management and its impact on firms' performance: An analysis of Mauritian small manufacturing firms. *International Review of business research papers, 2*(2), 45-58.

Panigrahi, A.K. (2013). Liquidity management of Indian cement companies: A comparative study. *IOSR Journal of Business and Management, 14*(5), 49-61.

Peavler, R. (2017). Analysis of liquidity position using financial ratios. Retrieved from https://www.thebalancesmb.com/liquidity-position- analysis-with-ratios-393233

Priya, K., & Nimalathasan, B. (2013). Liquidity management and profitability: A case study of listed manufacturing companies in Srilanka. *International Journal of Technological Exploration and Learning, 2*(4), 161 - 165.

Priya, K., & Nimalathasan, B. (2013). Liquidity management and profitability: A case study of listed manufacturing companies in Sri Lanka. *Technological Exploration and Learning (IJTEL), 2*(4), 161–165.

Rajkumar, P. (2014). Impact of financial leverage on financial performance: Special Reference to John Keells Holdings plc in Sri Lanka. *Scientific Research Journal (SCIRJ), 2*(2), 15-20.

Salawu, R.O., &Alao, J.A. (2014). Determinants of working capital management: Case of Nigerian manufacturing firms. *Journal of Economics and Sustainable Development, 5*(14), 49-56.

Samuel, O.T., & Abdulateef, Y. (2016). Liquidity management and profitability of listed food and beverages companies in Nigeria. *IOSR Journal of Business and Management, 18*(2), 167-176.

Saripalle, M. (2018). Determinants of profitability in the Indian logistics industry. *International Journal of Logistics Economics and Globalization, 7*(1), 13-27.

Swagatika, N., & Ajaya, K.P. (2018). The determinants of corporate profitability: An investigation of Indian manufacturing firms. *International Journal of Emerging Markets, 13*(1), 66-86, https://doi.org/10.1108/IJoEM- 01-2017-0013

Yameen, M., Farhan, N.H.S., & Tabash, M.I. (2019). The impact of liquidity on firms' performance: Empirical investigation from Indian pharmaceutical companies. *Academic Journal of Interdisciplinary Studies, 8*(3), 212–220. https://doi.org/10.36941/ajis-2019-0019

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Yusheng, K., Mohammed, M., & Andrew, O.A. (2019). Liquidity and financial performance a correlational analysis of quoted non financial firms in Ghana. *International Journal of Trend in Scientific Research and Development, 3*(5), 133–143. https://doi.org/https://doi.org/10.31142/ijtsrd25248

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