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CORPORATE LIQUIDITY MANAGEMENT AND FIRM FINANCIAL PERFORMANCE

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ABSTRACT

This study examines corporate liquidity management and firm financial performance. The broad objective of the study is to examine the effect of receivable period on firm financial performance of listed consumer goods companies in Nigeria and also to evaluate the effect of payable period on firm financial performance of listed consumer goods firms in Nigeria. The secondary source of data collection was adopted in the study where the purposive sampling technique was used to select a sample size of ten (10) listed consumer goods firms in Nigeria. Ordinary Least Square regression analysis was used in this study and the findings revealed that payable period has significant effect on firm financial performance of listed consumer goods firms in Nigeria and that inventory days has significant effect on firm financial performance of listed consumer goods firms in Nigeria. The study recommended among others that management of listed firms should concentrate effort on reducing the high variability of accounts receivable period and that firms should emphasize to increase sales to increase inventory turnover to achieve maintainable competitive advantage through managing inventory to optimal level so as to maximize profitability.

KEYWORDS

Liquidity management, receivable period, payable period, inventory days.

Introduction

The idea of liquidity and its management is crucial, especially in this time of global financial disruption and needs to be carefully considered and taken seriously especially in an economy where financial institutions are hesitant to extend credit facilities (loans) due to an increase in non-performing loans and high interest rates on loans (Prempeh & Peprah-Amankona, 2020).

Since it affects stakeholder trust, liquidity management is an essential part of any organisational environment that demands careful consideration, planning, and management. In order to prevent

illiquidity and ultimately bankruptcy, liquidity should be managed so that neither too much nor too little is available (Majakusi, 2016; Abdi & Kavale, 2016; Edem, 2017). Businesses' primary objective of maximising profits has been forced by the need for shareholders to maximise their wealth. However, debt and equity—which stand for borrowed money and owned assets, respectively—make up a company's capital structures (Umobong, 2015). The majority of a company's debt portfolio consists of short- and long-term debts that must be repaid with available funds. This definition of liquidity is the ease with which assets can be changed into cash and cash equivalents with the least amount of value loss. The opportunity cost of remaining liquid is the loss of earnings from not investing in higher-yielding assets.

Salim and Bilal (2016) assert that a company's liquidity position or level dictates its capital structure. All creditors and investors are concerned about the company's capacity to meet its short- and long-term debts in good and bad times due to shifting market conditions. There is no universally applicable rule that specifies the optimal level of liquidity that a company should maintain, so the amount of liquidity that a company needs to maintain to reach a given level of profitability differs from company to company.

Panigrahi (2013) noted that when a financial analysis is done, the profitability of the enterprise is prioritised over its liquidity. This should be clear because making a profit is any business's primary financial goal. Therefore, the managers give profitability more weight. The ability to turn a profit is known as profitability. Profitability ratios are used in financial analysis to measure profitability. Brealey (2012) states that payout ratio, net profit margin, return on equity (ROE), and return on assets (ROA) are examples of profitability ratios. On the other hand, a set of ratios is used to measure liquidity and determine an entity's liquidity position. These ratios, which include the cash, quick, and current ratios, indicate whether an organization will be able to pay its debts in the near future. An organization with low liquidity will find it difficult to fulfill its operational commitments and will ultimately be compelled to look for debt financing to keep things running. According to Zygmunt (2013), given the importance of liquidity to business performance, one could conclude that it dictates profitability. This indicates that liquidity has a significant impact on a company's profitability and performance.

The broad objective of this study is to examine the effect of corporate liquidity management on firm financial performance. However, the specific objectives include:

i. To examine the effect of receivable period on firm financial performance of listed consumer goods companies in Nigeria.
ii. To evaluate the effect of payable period on firm financial performance of listed consumer goods firms in Nigeria.
iii. To investigate the effect of inventory days on firm financial performance of listed consumer goods firms in Nigeria.

The following are the hypotheses of the study stated in their null forms:

i. Receivable period has no significant effect on firm financial performance of listed consumer goods companies in Nigeria.
ii. Payable period has no significant effect on firm financial performance of listed consumer goods firms in Nigeria.
iii. Inventory days has no significant effect on firm financial performance of listed consumer goods firms in Nigeria.

2.0 REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

Profitability

Profitability is the amount of money that a business can make using its available resources. Most organisations want to maximise their profits. Profitability demonstrates a company's capacity to generate earnings during a specific time period by utilising its assets. The ability of an organisation, firm, or company to profit from all of its business operations is known as profitability (Muya & Gathogo, 2018). Typically, the entrepreneur receives profit as compensation for their investment. In actuality, an entrepreneur's primary driving force behind entering the market is profit. Profit is another metric used to gauge a company's performance. The difference between sales revenue and total costs, which include labour, material costs, and other expenses—is known as profit.

The primary objective of any business endeavour is to achieve profitability, which can be measured in either accounting or economic profits. Profitability illustrates how well management uses the company's resources to turn a profit (Muya & Gathogo, 2018). Businesses will therefore probably benefit greatly from higher profitability. Being profitable is a crucial requirement for any company's long-term survival and success. Investors are drawn to profitable businesses, and these enterprises are more likely to endure over the long run (Farah & Nina, 2016). Many businesses work hard to increase their profitability, and they invest many hours in meetings to find ways to cut operating expenses while simultaneously boosting sales.

Profitability is a key performance indicator for the company. For many businesses, one of the most important components of financial reporting is profitability (Farah & Nina, 2016). Since profitability provides a clear indicator of business performance, it is essential to the manager of the company as well as the owners and other stakeholders involved in or associated with the business.

Generally, performance could be regarded as one of the key factors that has been widely used in measuring success or failure of an organization. Basically, the performance of a firm is categorized into two broad categories namely; financial performance and strategic performance. Particularly, financial performance covers profitability performance, market value performance, and growth performance while the category of strategic performance includes employees' satisfaction, customers' satisfaction, environmental performance, environmental audit performance, and social performance. For the purpose of closing on research gaps in the sphere of account receivable management and corporate performance relationship, we adopt Return on Asset as a performance measure previously employed by (Olaoye, & Adekanbi, 2019). It serves as a performance indicator widely employed by financial analysis.

Liquidity

The ability of an individual or organisation to meet short- and long-term needs with cash or easily convertible assets is referred to as liquidity. Liquidity can also be defined by investors as the ability to quickly and with little to no value loss convert an investment portfolio into cash. Since a firm's comprehension of liquidity and its management assures the company's survival, even as a stakeholder, all of these ideas are essential to a company's success (Prempeh & Peprah-Amankona, 2020).

The concept of financial liquidity is intricate yet crucial in characterising the stability and soundness of the financial system. Since capital is necessary for any business to begin with, this highlights the importance of liquidity to the financial system as well as to all other industries. Olaoye and Adekanbi

(2019) defined liquidity in terms of flows; that is between participants in the financial system and the market, as well as the capacity to realise these flows.

Since the future is unpredictable, firms' management has been concerned about liquidity management. Globally, it is gaining significant attention, particularly in light of the current global economic situation. Additionally, the concerns of managers and owners of businesses everywhere is coming up with a plan for handling day-to-day operations so that they can fulfil their responsibilities on time, boost profitability, and enrich shareholders. It entails organising and managing current assets and current liabilities so as to: (i) mitigate the risk of failing to pay short-term obligations when they become due; and (ii) prevent making excessive investments in current assets. Since the majority of the proxies used to measure corporate liquidity are functions of working capital components, the concept of liquidity management is examined from the working capital management perspective. Two concepts of working capital that are important to management are (i) gross working capital and (ii) net working capital, according to Priya and Nimalathasan (2013). The amount and method of financing a company invests in current assets is known as its gross working capital. Conversely, the firm's liquidity position and the possibility of financing working capital requirements through long-term funding sources are indicated by the net working capital. Current liabilities minus Current Assets equals Net Working Capital. Depending on the amount of current assets and current liabilities, it might be positive or negative. As a result, investing in current assets should only be sufficient to cover current liabilities because having too many or too few current assets puts the company at risk.

The regular process of overseeing a company's investments in current assets, current liabilities, short-term borrowings, and short-term investments of excess cash that impact the company's profitability is known as liquidity management. Money and other assets that are easily converted into cash make up current assets. By definition, cash is the most liquid asset type; other assets have different levels of liquidity based on how easily they can be turned into cash. Any kind of liability that will mature for payment within a year, such as trade creditors, bank overdrafts, bills payable, unpaid expenses, etc., is included in the category of current liabilities. An asset-liability mismatch that arises during business operations may boost a company's profitability in the near term but raise the possibility of its insolvency. However, if liquidity is prioritised over profitability, this will happen. As a result, it can be observed that the management of current assets is central to liquidity management, which is quantified through the use of ratios like the CCC, APPP, ARCP, ICP, Inventory Turnover (IT), Accounts Receivable Turnover (ART), and Accounts Payable Turnover (APT). Usually, a company's working capital and liquidity requirements are determined by the same factors (Olaniyi, Ayo & Nzewi, 2019). On the other hand, having more liquidity than the company needs to fund its operations could be detrimental. Therefore, the total amount of funds invested in those assets is greatly impacted by the rates at which current assets are turned over relative to all sales over a specific time period.

Receivable period

Farouk and Hassan (2014) posit that deficient working capital management policies stem from choices made in relation to credit policy, collection period, inventory planning, the company's purchasing practises, account payable period, growth rate, and hedging strategy. Manufacturing companies that tighten their credit policies free up cash by lowering the amount of outstanding accounts receivable. On the other hand, a decrease in net sales could be compensatory. Similar to this,

a more vigorous collection strategy ought to produce quicker collections, which lowers the overall amount of accounts receivable.

This is a cash source, but suppliers might raise their rates in response. Rapid business growth necessitates significant variations in working capital from month to month as the company must invest in an increasing amount of inventory and accounts receivable (Prempeh & Peprah-Amankona, 2020). It is possible to lessen the issue by also slowing down the growth rate. Unexpected changes in working capital are less common when a company actively employs hedging strategies to create offsetting cash flow, however, the hedging transactions themselves will incur transaction costs. It is expected that a well-thought-out and implemented working capital management strategy will improve the performance of the company. A company's profitability may drop if it has too much working capital on hand (Frank & James, 2014). Overinvestment in receivables and inventory reduces profits for the company, but underinvestment raises the possibility that obligations won't be met when they're due. Therefore, every organisation needs to understand the significance of keeping working capital at a sufficient level and how it contributes to corporate sustainability. According to Miko and Ajagbonna (2019), who held similar views, effective working capital management entails, on the one hand, avoiding excessive investment in these assets and, on the other, planning and controlling current assets and current liabilities in a way that eliminates the risk of being unable to meet due short-term obligations. A crucial component of financial management, working capital management is critical to any company's ability to survive.

Ksenija (2013) posits that accounts receivable measures the unpaid claims that a firm has over its customers at a given period. It usually comes in the form of operating line of credit. It is usually due within a relatively short period up to one year. Accounts receivables are debts owed a firm by her valuable customers that are trusted with the goods and services after taking into consideration the character and integrity of the customer. According to Ksenija (2013), the competitive nature of business environment makes it imperative for firms to adjust their action plans and use financial policies to not only remain alive but also grow.

Payable Period

Otekunrin, Fagboro, Nwanji, Asamu, Ajiboye and Falaye (2019) acknowledged two significant approaches to determining a firm’s working capital, which are the balance sheet and operating cycle approach. Different authors have discovered many approaches to analyzing the working capital of various entities. Good WCM involves striking an appropriate balance between companies’ current assets and liabilities. Part of the variables used as a proxy for WCM is the trade receivables collection period (TRCP). Accounts receivable can be either trade credit or consumer credit or both. An essential consideration in trade receivable is credit policy variables. This policy comes with two options to offer.

Firstly, they could choose not to offer credit to customers no matter how strong their credit ratings are. Secondly, they could also offer credit to all customers no matter their credit ratings. However, to steer clear of bad debts, before granting credit to the customer, it is vital to consider the customer’s credit rating. Trade payables payment period (TPPP) is also an important component used to appraise the effectiveness of WCM (Olaniyi, Ayo, and Nzewi, 2017). It is also used as a proxy for WCM in this study. Trade payables embody a substantial percentage of short-term finance to the organization as it enables them to pay outstanding debts to their suppliers over a short period of time. There are

instances where using trade payables as a source of finance may be free or costly. It is free if there are no costs for using it, such as if no discounts are being offered by the seller. On the other hand, it is costly if the seller offers a discount, and the company may have to lose out on such discounts (Njue, 2020).

Whenever a significant part of a firm's assets is tied up in sundry debtors, the accuracy achieved in estimating the provision for doubtful debts will assume a special importance. Consequently, the author attempted to build a statistical model to increase the level of accuracy in such estimation. Researchers have studied accounts receivable individually but mostly as a part of working capital management, they did so from various angles and points of view.

Inventory days

The term "inventory" refers to the goods for sale as well as the raw materials utilized to make those goods. Inventory is one of a company's most valuable assets because inventory turnover is one of the key sources of revenue production and, as a result, earnings for the company's shareholders. A company's inventory is its collection of finished items or goods utilized in production. On a company's balance sheet, inventory is categorized as a current asset, and it serves as a buffer between manufacturing and order fulfillment. When an inventory item is sold, its carrying cost is transferred to the income statement's cost of goods sold (COGS) category (Prempeh & Peprah-Amankona, 2020). There are three methods for valuing inventory. In the first-in, first-out (FIFO) method, the cost of the earliest materials purchased determines the cost of the goods sold, while the cost of the most recent materials purchased determines the carrying cost of the inventory that remains. In the last-in, first-out (LIFO) method, the cost of the most recent materials purchased is used to determine the value of the goods sold, while the earliest materials purchased determines the value of the inventory that remains. In the weighted average method, the average cost of all materials purchased during the period must be used to value both inventory and the cost of goods sold.

Maintaining stock levels of a specific group of items at the lowest possible cost while adhering to other pertinent targets and objectives established by management is the art and science of inventory management. It is crucial that managers in a company handling inventory to keep in mind the goals of meeting customer demands and minimising expenses. One type of administrative control that is especially important in all manufacturing, wholesale, and retail organisations is inventory management. Dzapasi (2020) states that having the appropriate goods in the right quantity and quality at the right location, at the right time is the essence of inventory. The supply chain network requires this procedure in order to safeguard the production system from disruptions of any kind. Inventory control, also known as inventory management, is a policy that is intended to determine the most cost-effective amount of raw materials to purchase and maintain in the warehouse in order to minimise the total cost of inventory management. According to this definition, the policy is a system created to ensure that the appropriate amount and quality of raw materials are purchased at the appropriate cost during a specific time frame.

Inventory days is a valid predictor of the profitability of a firm; this is because inventories are assets of the firm held for the purpose of turning these assets into cash to realize a profit. However, where inventory is not converted into cash, the working capital will be tied up in them, thereby restricting the liquidity of the firm, as well as their profitability. An optimal ITP would help an organization increase its comparative advantage in terms of higher profitability. The overall measure for WCM is

the cash conversion cycle (CCC). It is derived from the summation of TRCP, TPPP and ITP. Hence, in this study, it is the last proxy used for WCM. It is the period when raw materials are purchased to when cash would be received from customers (Majakusi, 2016). The primary focus is on the period between when a firm pays for raw materials and when cash is received from customers. Lesser CCC is more beneficial to the firm than long or longer CCC.

2.2 Theoretical Framework

Trade-off Theory, Net Income Theory (NIT), Net Operating Income Theory and Pecking Order Theory are relevant to this study. However, this study will be anchored on pecking order theory.

Pecking Order Theory

In the face of knowledge asymmetry in the source of finance, the Pecking Order Theory of Capital Structure illustrates how managers might lower inefficiencies. The studies of Myers and Majluf are said to have influenced the development of the Pecking Order idea in 1984. Their hypothesis, however, was centered on Donaldson's belief that what motivates a management financing policy is their aspirations, which lead to financial decisions targeted at decreasing organizational mismanagement based on information asymmetry. Companies will choose a less expensive form of financing because management is also concerned about maximizing profit. According to the structure of the pecking order theory, a company's retained earnings are used first, then debt is issued, and finally, equity is issued as a last resort. The study by Titman and Wessels (1988) reveals that more lucrative enterprises will require less external finance, supporting the pecking order idea. According to Frank and Goyel (2003), larger organizations have an easier time deciding on the optimal source of finance than smaller firms.

This study is centered on pecking order theory since it’s immaterial in determining a firm's profitability under ideal market conditions, capital structure theories became prominent. A company's capital structure consists of its stock and debt to achieve its goals. For businesses, determining the best capital structure to minimize capital costs while maximizing value remains a challenge. This research assumes that a company's capital structure impacts its liquidity levels and situations.

2.3 Empirical Review

Receivable Period and Firm Financial Performance

The relationship between working capital management and financial performance of material manufacturing companies in Nigeria was investigated by Olaniyi, Ayo and Nzewi (2019). The study is based on the principle of fisher separations. Ex-post factor research was used in this study. Financial statements of the sampled firms were extracted using secondary sources of data from 2001 to 2015. Using random sampling techniques and an ordinary least square regression model, it was discovered that debtors and creditors of inventory have no meaningful link with manufacturing enterprises' return on investment in Nigeria. The study concluded that WCM has two categories: conservative and Aggressive. The impact of Total Quality Management on the performance of Nigerian deposit money institutions was researched by Ezenyilimba, Ezejiofor and Afodigbueokwu (2019). Data was obtained via surveys and presented in a tabular style using the t-test version 20.0 of the Statistical Package for Social Science (SPSS). The findings show that total quality management practices have aided in achieving improved quality output and cost redundancy in Nigerian deposit money banks, as well as

total quality management practices have aided in achieving improved quality output and cost redundancy in Nigerian deposit money banks.

Ijeoma & Ezejiofor (2013) used audited financial statements of a sample of 11 metal manufacturing private limited companies in Addis Ababa, Ethiopia, for the years 2008 to 2012 to investigate the effect of working capital management on firms performance. SPSS (version 20.0) was used to analyses the data; estimation equations for cross-sectional and time-series data were derived using both pooled panel data regression models and correlation analysis. The findings showed that lower profitability is linked to longer periods for holding inventory and accounts receivable. The outcome additionally demonstrates a noteworthy inverse correlation between the sample firms' profitability metrics and their cash conversion cycle. No significant relationship between cash conversion cycle; accounts receivable period; inventory conversion period and account payable period with return on investment capital was been observed.

Payable Period and Firm Financial Performance

Njue (2020) observed that enterprises use more short-term debt financing in their operations when analyzing the effect of capital structure on the profitability of Ghanaian listed firms. The study discovered that short-term debt is a significant source of funding for businesses. In the quest for profit maximization, the basis of liquidity is critical, yet most businesses struggle to discover the appropriate amount that will minimize costs while maximizing advantages. The ideal capital structure maximizes the market value of the firm's outstanding shares.

Moussa (2019) investigated Management of working capital, company performance, and type of business. Data were gathered for this study from 414 non-financial companies listed on the Bombay Stock Exchange between 2012 and 2018. In the presence of liquidity, leverage, size, age, and growth as control variables, fixed-effect regression models were performed with Tobin's Q and return on equity (ROE) as dependent variables and net trade cycle (NTC) and its components as explanatory variables. The performance of the sample firms is strongly influenced by WCM efficiency. Indian non-financial companies outperform their peers in terms of profitability by retaining lower NTC. Its constituents affect firm value and profitability in a similar way to NTC. The findings indicate that the relationship's importance varies based on the type of business the firm does.

Dabo, Andow, and Peter (2020) sought to know if working capital management affect profitability of Ghanaian manufacturing firms. The relationship between working capital management and business profitability in developing nations is examined in this study. Eleven (11) manufacturing companies listed between 2011 and 2017 on the Ghana Stock Exchange comprised a balanced panel. Using the dynamic panel regression (Arellano-Bond Estimation) technique, the relationship between working capital management and profitability was investigated. The research findings indicate a statistically significant positive linear correlation between the profitability of firms and their working capital management. The results also show that working capital management and firm profitability have a concave quadratic relationship. Managers must make sure they operate within the parameters of the optimal level by putting in place an effective and efficient working capital management policy.

Simon, Sawandi, and Abdul-Hamid (2017) studied the impact of working capital management on firm performance 45 non-financial companies that were listed between 2006 and 2015 on the Pakistan Stock Exchange comprise the study's sample. The return on assets is used to gauge the performance of the company, whereas working capital management is assessed using the cash conversion cycle.

The four life cycle stages of the sample firms are: initial, rapid growth, mature, and revival. Regression models with panel data have been used to predict the significant relationship. The results imply that the cash conversion cycle has a substantial positive correlation with performance during the maturity and revival phases of the life cycle, but a significant negative correlation with performance during the early, fast growth stages. Therefore, a company's working capital management policy shouldn't be the same across all organisational life cycle stages if it wants to improve performance.

Inventory Days and Firm Financial Performance

Anene (2018) analyzed inventory management performance of Corporate India by using three financial parameters - Cash Conversion Efficiency Days Operating Cycle and Days Inventory and by assigning them different weights in the overall score, to rank and analyse inventory management performance. This study provides the estimates by using data of 427 companies over the period 1998-99 to 2000- 01 for each company and for each industry. The presence of these three in the overall inventory performance criterion not only helps in performance evaluation but also will capture the dynamics of risk-return tradeoff.

Anichebe and Agu (2017) investigated a research about the effect of inventory management on the Pakistani firms. A sample of 94 Pakistani firms listed on Karachi Stock Exchange from different sectors of the Pakistani economy for a period of 6 years 1999 to 2004 were selected. The study considered Inventory turnover in days, average collection period, average payment period cash conversion cycle, as independent variables, and net operating profitability of Pakistani firms considered dependent variable. The current ratio was considered as a traditional measure of liquidity, while the size of the firm (natural logarithm of sales), debt ratio and financial assets to total assets ratio all have been used as a control variable. Panel data regression analysis of cross-sectional and time series data analysis was used which are the quantitative (Pearson correlation model, Regression analysis) and the descriptive using SPSS.

3.0 Analytical framework and model specification

The ex-post factor research design is used in this study due to the fact that the variables cannot be manipulated by the researcher. This method was adopted since social scientific research problems do not lend themselves to experimental and controlled inquiry of the ex-post factor kind. Also, this research design makes it impossible to select, control and manipulate the factors necessary to study cause-and-effect relationships directly. The population of this study consists of Nigerian listed companies on Nigerian Stock Exchange as at 31st December, 2021. The population comprises of one hundred and fifty six (156) firms listed on Nigerian Exchange Group (NGX). Since the entire listed firms cannot be used for the study, the study is limited to ten (10) consumer goods firms listed on the Nigeria Exchange Group (NGX). The basic criteria of selecting these firms are the capitalization prowess and their specialization. In selecting the sample, purposive sample technique was used to derive the sample size. The **p**urposive sampling was used to ensure that the sample represents a diversity of perspectives.

The secondary source of data collection was used for this study where data was gathered from audited annual reports of selected consumer goods firms listed on the Nigeria Exchange Group (NGX). However, for the purpose of this study, 10 years (2012 – 2021) annual reports of the 10 selected

consumer goods firms were adopted. The study used Ordinary Least Square (OLS) regression analysis method to investigate the impact of independent variables on dependent variable. A multiple linear regression model was used to establish the significance of the model. The results obtained from the model are presented in tables to aid and ease the analysis.

Model Specification

The study employed multiple regression technique of analysis using Least Squares regression estimation. This method was adopted because it enhance easy presentation and interpretation of data. The empirical model of the study is mathematically expressed as follows;

$PFRM_{it} = \beta_0 + \beta_1 RVPD_{it} + \beta_2 PBPD_{it} + \beta_3 IVDY_{it} + \varepsilon_{it}$

β_0 = Constant

β_1- β_3 = Coefficient of parameters estimated

PFRM = Firm financial performance

RVPD = Receivable Period

PBPD = Payable period

IVDY = Inventory days

ε_{it} = Error term

4.0 Estimation techniques and discussion of findings

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	Pr(Skewness)	Pr(Kurtosis)	Prob>chi2
PFRM	78	7.339359	.482306	6.54	8.39	0.0566	0.0006	0.0064
RVPD	78	88.68844	8.998392	57.55	98.68	0.0000	0.0165	0.0001
PBPD	78	73.20692	14.59759	43.04	100	0.0997	0.0244	0.0540
IVDY	78	6.897821	.5202812	5.82	7.88	0.0199	0.1723	0.0282

Source: Researcher's Computation Using STATA

Table 4.1 presents the summary of the descriptive statistics for the dependent and independent variables for seven seventy-seven (77) observations. It shows that performance measure has a mean value of about 7.3394 and a standard deviation of about 0.4823. The maximum value of the variable is 8.39 while the minimum is 6.54. The maximum values for all other variables are 98.68, 100 and 7.88 the minimum for all the variables are 57.55, 43.04 and 5.82 respectively.

For receivable period, mean value is 88.688 and standard deviation of 8.998. The corresponding values for the others are: Payable period, 73.2069 and 14.598 respectively; inventory days 6.8978 and 0.5202 respectively. The p-values of the skewness and kurtosis statistics show that nearly in all the cases the data are judged to be normally distributed at 5% level of significance.

Table 4.2: Correlation Matrix

	PFRM	**RVPD**	**PBPD**	**IVDY**
PFRM	1.0000			
RVPD	0.5947	1.0000		
PBPD	0.0351	-0.2159	1.0000	
IVDY	0.9289	0.6465	-0.0866	1.0000

Source: Researcher's Computation Using STATA

Table 4.2 shows that there are mixed correlations between the various variables used in the study. The table shows positive correlations between performance measure and payable period and the other two. No two of the explanatory variables are perfectly correlated or nearly so. Thus, the problem of multicolinearity is absent in this model.

4.1 Testing of Hypotheses

Test Statistic

The statistical tool used in testing the stated hypotheses is the regression test procedure which uses the individual significance test (t-test) and the overall significance test (chi-squared-test). The goodness of fit of the model is tested using the coefficient of determination. The estimation of these statistics is done using the STATA computer software.

Significance Level

The level of significance adopted in this study in testing the stated hypotheses of this study is 5%. This level is usually considered adequate for studies in management and other behavioural sciences.

Decision Rule

The critical p-value used in these tests is 0.05. Thus, the researcher accepts a given alternative hypothesis as being accepted if calculated p-value is less than or equal to 0.05, otherwise the researcher accepts the null hypothesis that there is no significant effect.

Table 4.3: Summary of Regression Result

Variable	OLS Regression	ROBUST Regression
RVPD	0.0012(0.678)	0.0123(0.000)
PBPD	0.0040(0.006)	0.0012(0.000)
IVDY	0.8529)(.000)	0.8135(0.000)
_cons	1.0487(0.001)	0.2476(0.342)
F-Stat	172.91(0.0000)	278.88(0.0000)
N	77	77
VIF	1.53	
Heteroscedasticity	8.05(0.0046)	
R-Squared	0.8766	
Adj R-Squared	0.8716	

Source: Researcher's Computation Using STATA

Table 4.3 shows that the explanatory variable does not account for much of the systematic variations in the dependent variable. The table shows very moderate value of R-squared of 0.8766.

This value of the R-squared statistic shows that the explanatory variables are collectively able to explain about 88% of the variations in the dependent variables meaning that other variables are minimally useful in explaining changes in the dependent variable. For the model, the p-value of the F statistic (0.0451) shows that the model overall is suitable for estimating the stated model.

The VIF test (1.25) shows that there is the absence on multi-colinearity and so there is no need to drop any variable. Also, the heteroscedasticity is 8.05 with p-value of 0.0046, showing that there significant heteroscedasticity problem and so the need for a robust regression.

With a coefficient of 0.0123 the results indicate that receivable period positively impacts return on assets, while the probability value of 0.000 indicates that the negative impact is significant. This leads to the rejection of the null hypothesis, thus acceptance of the alternative hypothesis that receivable period has a significant impact on financial performance listed consumer goods companies in Nigeria, and the impact is positive.

With a coefficient of 0.0049 the results indicate that payable period positively impacts financial performance listed consumer goods companies in Nigeria, while the probability value of 0.000 indicates that the negative impact is significant. This leads to the acceptance of the alternative hypothesis, thus the rejection of the null hypothesis. The researcher accepts that payable period significantly impacts performance of listed deposit banks in Nigeria, and that such effect is positive.

With a coefficient of 0.8144 the results indicate that Inventory days positively impacts financial performance listed consumer goods companies in Nigeria while the probability value of 0.000 indicates that the positive impact is significant because it is less than 0.05. This leads to the acceptance of the alternative hypothesis, thus rejecting the null hypothesis. The researcher accepts that inventory days significantly affect financial performance listed consumer goods companies in Nigeria.

Discussion of Findings

The results indicate that almost all the variables are significantly normally distributed at 5% level of significance. The correlation matrix indicates the variables have mixed relationships. The results also indicate the absence of multi-colinearity.

Essentially, the findings of the study are: with a coefficient of 0.0123 the results indicate that receivable period positively impacts return on assets, while the probability value of 0.000 indicates that the negative impact is significant. This leads to the rejection of the null hypothesis, thus acceptance of the alternative hypothesis that receivable period has a significant impact on financial performance listed consumer goods companies in Nigeria, and the impact is positive. The result agrees with consistent with the findings of Olaniyi *et al*. (2019), but was not consistent with the findings of Ezenyilimba *et al.* (2019). This inconclusiveness may have resulted from the existence of varying degrees of institutional backdrops.

Similarly, with a coefficient of 0.0049 the results indicate that payable period positively impacts financial performance listed consumer goods companies in Nigeria, while the probability value of 0.000 indicates that the negative impact is significant. This leads to the acceptance of the alternative hypothesis, thus the rejection of the null hypothesis. The researcher accepts that payable period significantly impacts performance of listed deposit banks in Nigeria, and that such effect is positive. The result agrees with the findings of Moussa (2019), Nijue (2020) and Dabo *et al*. (2020) but not consistent with the findings of Simon *et al*. (2017).

With a coefficient of 0.8144 the results indicate that Inventory days positively impacts financial performance listed consumer goods companies in Nigeria while the probability value of 0.000 indicates that the positive impact is significant because it is less than 0.05. This leads to the acceptance of the alternative hypothesis, thus rejecting the null hypothesis. The researcher accepts that inventory days significantly affect financial performance listed consumer goods companies in Nigeria. The result agrees with the findings of Anichebe and Agu (2017), Ijeoma and Ezejiofor (2013) but not consistent with the finding of Anene (2018). This might have been as a result of using different industrial sectors.

5.0 Conclusion and Policy Recommendations

Conclusion

The cardinality of liquidity management in any organisation cannot be over emphasised. This is because either inadequate liquidity or excess liquidity may be injurious to the smooth operations of the organization. The study has provided empirical evidence on the utility of three independent variables of liquidity management (receivable period, payable period and inventory days) in explaining firm financial performance of consumer firms listed in Nigeria.

Liquidity management is a critical component of any organizational environment that necessitates careful consideration, planning, and management because it influences the level of trust among stakeholders. Liquidity should be controlled such that neither too much nor too little is available as firms with poor liquidity management experience illiquidity and eventually bankruptcy. The need for shareholders to maximize their wealth has forced the primary goal of profit maximization for businesses. Firms' capital structures, however, are made up of debt and equity, which refers to borrowed funds and owned assets, respectively. A company's debt portfolio is mostly made up of short- and long-term obligations that can only be paid if liquidity is available.

Policy Recommendations

The following recommendations are hereby made:

i. Management of listed firms should concentrate effort on reducing the high variability of accounts receivable period
ii. Firms should emphasize to increase sales to increase inventory turnover to achieve maintainable competitive advantage through managing inventory to optimal level so as to maximize profitability.
iii. Management of these companies in Nigeria should exercise caution while dealing with stock/investors, at the very least to guarantee that their stock levels do not fall below the minimum stock level.

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