

CASH MANAGEMENT PRACTICES AND FINANCIAL PERFORMANCE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT

The process of managing cash has become a major challenge for deposit money banks due to its significant impact in making cash available for societal use. The success of any business venture is predicted on how the management plan and control its cash-flow. This study investigated the relationship between cash management practices and financial performance of listed deposit money banks in Nigeria between 2014 and 2020. The study sought to investigate the relationship between cash and bank balances and return on equity, investigate the relationship between cash conversion cycle and return on equity, investigate the relationship between cash turnover and return on equity and finally, investigate the extent firms size moderate the relationship between cash management practices and financial performance of listed deposit money banks in Nigeria. Four hypotheses guided the study. The study was an ex-post facto research design. The population of the study was twenty-three listed deposit money banks in the Nigeria Exchange Group. Five of the banks were selected using purposive sampling technique. The data used in this study were sourced from annual reports and statement of accounts of the selected deposit money banks. Cash and banks balances, cash conversion cycle and cash turnover were employed as the independent variables while return on equity was employed as the dependent variable. Firm size was adopted as moderating variable. Descriptive statistics and ordinary least Square regression were employed in analyzing the data. The study found that, there is a positive and significant relationship between cash and banks balances and return on equity; there is a negative but significant relationship between cash conversion cycle and return on equity; there is a positive and significant relationship between cash turnover and return on equity and finally, firm size had positive and significant moderating influence on the relationship between cash management practices and financial performance. Based on the foregoing, the study concludes that there is a positive and significant relationship between cash management practices and financial performance of listed deposit money banks in Nigeria. The study recommended among others, that deposit money bank should avoid cash and banks balances lose rather than maintaining brought-forward cash balances for equity distribution. Furthermore, firms should monitor cash conversion cycle moment for shareholders wealth creation.

Key words: Deposit Money Banks, Cash Management Practices and Financial Performance

INTRODUCTION

All over the world firms face challenges in managing their business activities due to insufficient cash to meet targeted obligations. Cash management technique is one of the key factors used in cash collection, monitoring of cash and its application in investment activities. Cash management refers to a set of guidelines established by management to ensure that the organization has optimal cash balance at any time to meet the organizational goals. Cash management involves cash planning, managing the cash flows, setting the optimum cash level from time to time and investing surplus cash. Cuneyt et al, (2016) posited that, deposit money banks need to apply the application

of cash management techniques to contribute significantly to the effectiveness of the system by providing an efficient mechanism for the mobilization of resources and efficient utilization of funds for productive investment. Effective cash investment means that, firms should meet up timely provision of cash resources that are necessary to the company's operations. With the use of basic cash management tools and techniques, cash becomes a corporate asset that contributes directly to the firm's profit. Marus et al (2019) posits that cash management decision is one of the most important decisions in an organization because of the scarcity of financial resources of many institutions. He further noted that, businesses are required to maintain a balance between cash in hand and profitability when conducting day to day operations. Cash in hand is a precautionary technique that firms use to meet up their short-term obligations. Financial performance on the other hand is the measurement of what has been attained by the firm, which is an indicator of the wealth maximization for a period (Ganiyu et al, 2019). The objectives of measuring financial performance are to obtain very useful information about flow of funds, the uses of firm finances, their efficiency and effectiveness. Besides, managers can make best decisions from the information on firm's financial performance (Almajali et al, 2012). Financial performance can be measured using either Return on investment (ROI), Residual Income (RI), Earning per share (EPS), Dividend Yield, return on assets (ROA), Return on equity (ROE) etc (Udisifan et al, 2021). These measures portray how efficient managers utilize their available resources to generate earnings.

Statement of the Problem

The problem of inefficient cash management by deposit money banks in Nigeria was brought to the frontline during the liquidation and distress era of the late 1980s and early 1990s. The negative cumulative effects of the banking system liquidity crises lingered up to the recapitalization era in 2005 in which deposit money banks was mandated to increase their capital base from ₦2 billion to ₦25 billion. This directive was giving by the CB to stabilize and rectify the deposit bank banks liquidity issue that was prevalent in the economy. But, after five (5) years of praise as a fortified repositioning of deposit money banks against liquidity shortage; the Central Bank of Nigeria in 2009 came on a rescue mission to save five illiquid deposit money banks. The global financial crises of 2008 also had its charge on the already weak confidence conditions, compelling the Central Bank of Nigeria to use both conventional and unconventional measures to inject liquidity into the banking system. In its rescuing mission in 2009, The Central Bank of Nigeria injected N620 billion to save the five deposit money banks that were operating on negative shareholders' funds. Another problem that affects deposit money banks in Nigeria is global fluctuation in income statements and current financial position. Many deposit money banks have faced these challenge in Nigeria and outside Nigeria. This is as a result of lack of understanding and implementation of cash management practices in their day to day operations. This has caused some deposit money banks to insolvent while others end up collapsing. Examples for such are the merger of diamond bank and access bank. Due to these problems there are review of empirical studies on cash management practices and financial performance such as Aileman et al (2014); Ando et al., (2019); Yousef (2016); Kinyanjui et al (2017); Liman and Aminatu (2018); Sulaiman et al., (2019); Abdullahi et al. (2020) and Appah et al (2021). For instance Ando et al (2019) found that the improvement in cash management positively affected return on assets of fund managers. Marus et al. (2019) study found that the aforementioned practices were not sustainable with time due to incompetence in forecasting receipts and payments. Abdullahi et al. (2020) studies result showed that account receivables management has significant negative effect on the financial performance and account payables management has significant and positive effect on the financial performance proxy by return on equity (ROE). Based on the above problems and mixed results, there is a missing gap in the literature. Therefore, this study is to fill the gap by using a period of 2014 to

2020 to investigate the relationship between cash management practices and financial performance of listed deposit money bank in Nigeria.

Aim and Objectives of the study

The aim of the study is to investigate the relationship between cash management practices and financial performance of listed deposit money bank in Nigeria. The specific objectives are to:

- i. Investigate the relationship between cash and bank balances on return on equity (ROE) of listed deposit money banks in Nigeria.
- ii. Investigate the relationship between cash conversion cycle and return on equity (ROE) of listed deposit money banks in Nigeria.
- iii. Investigate the relationship between cash turnover and return on equity (ROE) of listed deposit money banks in Nigeria.
- iv. Investigate the extent firms size moderate the relationship between cash management practices and financial performance.

Hypotheses

Based on the research questions above, the following hypotheses were formulated.

- Ho₁: There is no significant relationship between cash and bank balances and return on equity (ROE) of listed deposit money banks in Nigeria.
- Ho₂: There is no significant relationship between cash conversion cycle and return on equity (ROE) of listed deposit money bank in Nigeria.
- Ho₃: There is no significant relationship between cash turnover and return on equity (ROE) of listed deposit money bank in Nigeria.
- Ho₄: Firms size does not moderate relationship between cash management practices and financial performance of deposit money banks in Nigeria.

REVIEW OF RELATED LITERATURE

Conceptual Review

Cash management Practices: Cash management practices refers to the management of an entity's cash to ensure that sufficient cash are sustained for entity's daily operations, finance opportunities and payments of unexpected services (Samuel & Peter, 2016). Cash management practices involve the collection, handling, and usage of cash in effective and efficient manner. It involves assessing market liquidity, cash flow, and investments. Njeru (2015) defined Cash management practices as a financial discipline that adopts some principles, regardless of the type of business, size or age of an enterprise. Major and Major (2020) defined it as the efficient collection, disbursement and investment of the organization's cash while meeting the firm's liquidity requirements. Cash management is concerned with the managing of cash flows into and out of the firm; cash flows within the firm; and cash balances held by the firm at a point of time by financing deficit or investing surplus cash (Yahaya, 2017). Jean et al (2007) cash management refers to the step by step procedure of managing liquidity and cash flow of a firm as well as managing risks and processes related to capital optimization and cash flow. Management of cash covers many activities and has its major purpose as controlling the company's cash flow and efficiently managing its funds. Efficient management of cash flow is vital for all companies. Soet et al (2018) points out that the aim of managing cash is to find optimal cash level for creating the highest level of performance for an entity. The major components of cash management lie in the two aspects; financial reporting and financial management (Kinyajui, 2016). Kaketu et al., (2017) observed that management and finance team need to enforce adherence to cash policy put in place to guide and control cash management. Murkor et al, (2018) observed that finance managers should come up with a compulsory cash flow policies to enable the organization come up with

clear policies for cash flow management including the investment of surplus funds if need arise. Liman and Aminatu (2018) noted that firms should set a policy to keep bankruptcy cost at a lower level and also management efficiency is required in managing costs, increasing efficiency and financial performance.

Cash and banks balances: Cash is used in starting a business as well as in liquidating the same for its breakup value. It is made up of cash on hand and demand supplies while bank balance are short term highly liquid investment that are readily convertible to known amount of cash although subject to insignificant risks of changes in value (Onyeka et al, 2018). Cash and bank balances refer to the line item on the balance sheet that reports the value of a company's assets that are cash bank balances in CBN in the case of deposit money banks regulation. According to Charles and Fortune (2019), cash and cash balances are assets saved in CBN for purpose of customers' savings protection. For simplicity, the total value of cash on hand includes items with a similar nature to cash.

Cash Conversion Cycle: The term "cash conversion cycle" refers to the time span between a firm's disbursing and collecting cash. It also refers to the length of time from the payment for the purchase of raw materials to manufacture a product until the collection of account receivable associated with the sale of the product (Edem, 2017). However, shortening the CCC creates its own risks: while a firm could even achieve a negative CCC by collecting from customers before paying suppliers, a policy of strict collections and lax payments is not always sustainable.. However, the CCC cannot be directly observed in cash flows, because these are also influenced by investment and financing activities; it must be derived from Statement of Financial Position data associated with the firm's operations (Emmanuel, 2015). Cash Conversion Cycle must be calculated by tracing a change in cash through its effect upon receivables, inventory, payables, and finally back to cash thus, the term cash conversion cycle, and the observation that these four accounts "articulate" with one another. Onyekwelu et al (2018) acknowledged that to account for the efficiency of the firm's cash management, the practitioners and researchers should use the cash conversion cycle (CCC) parameter by considering the variables of inventory conversion, debtors conversion and the payables conversion.

Cash Turnover: The cash turnover is used to determine the proportion of cash required to generate sales. The ratio is typically compared to the same result for other businesses in the same industry to estimate the efficiency with which an organization uses its available cash to conduct operations and generate sales (Adebayo et al, 2011). Cash turnover is a comparison between sales and the average cash amount. Cash turnover rate is a measure of the efficiency of cash used to carried out by the company's operation. The efficient use of cash means companies have the opportunity to make greater investment in fixed investment that can be made in income (Onyekwelu et al, 2018). Cash turnover is a measure of the efficiency of cash used by companies because the cash turnover rate describes the speed of return of cash invested in working capital.

Financial Performance: Financial performance is the measurement of the results of a company's policies wealth maximization and operations in monetary terms. According to Appah, et al (2020), financial performance is mainly reflected in the computation of accounting ratios that suggested the relationship between numbers in the financial statement. They further stated that corporate financial performance can be reflected in market-based (investor returns) and accounting-based (accounting returns) measures. Nwanyanwu (2015) stated that financial performance is used to evaluate the level at which an organization has succeeded in its line of business. Financial performance of an entity relates to the entity's ability and focus on economic resources available

in a profitable manner and how well entity managed to generate considerable cash flows by consuming such resources. This information is presented in statement of comprehensive income, known as income statement and lastly, changes in financial position, means how business activities have affected the investor's stake in the entity (Oyadonghan, 2017). Rajkumar and Hanitha, (2015) stated that financial performance is a firm's ability to generate new resources from day-to-day operations over a given period of time, and it is measured as net income and cash from operation. For the purpose of this study financial performance is measured by return on equity.

Return on Equity (ROE): Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested (Sulaiman et al., 2019). The denominator for ROE is equity, or more specifically shareholders' equity. Shareholders equity is assets minus liabilities on a firm's balance sheet and is the accounting value that is left for shareholders should a company settle its liabilities with its reported assets. The return on equity can be used internally by a company or can be used by an investor to evaluate how well the company is turning a profit relative to its stockholder's equity. ROE is more than a measure of profit; it also indicates how well company's management is deploying the shareholders' capital.

Operational Framework

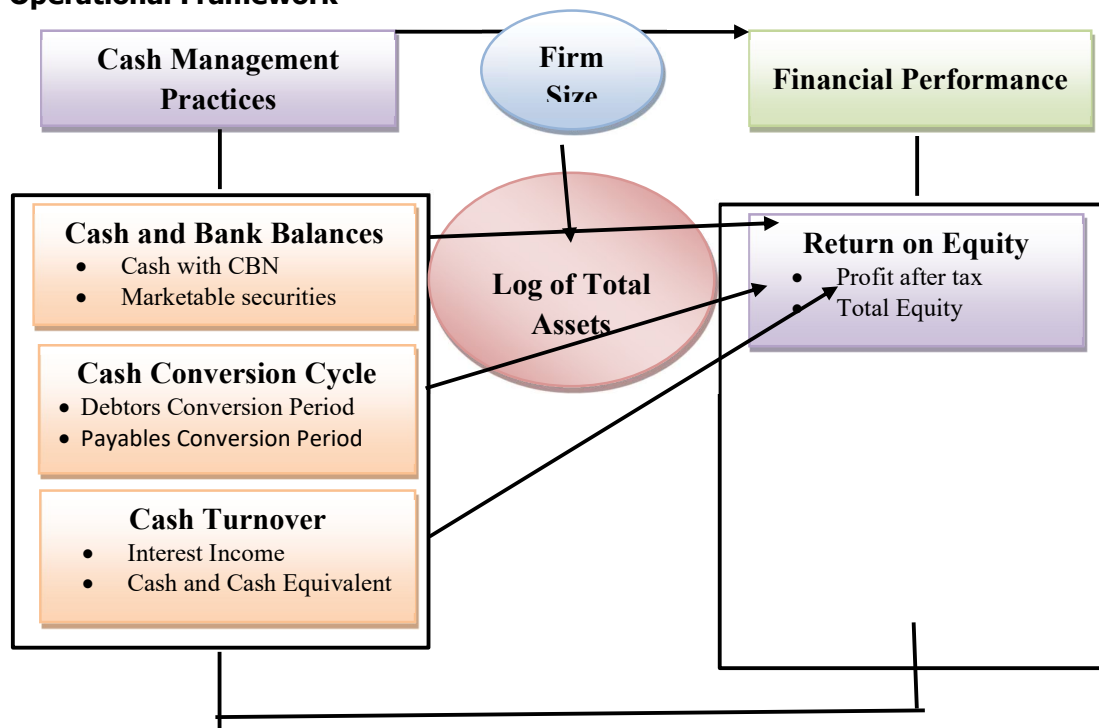


Fig. 1: Operational Frame work showing the relationship between cash management practices and financial performance

Source: Researchers' Conceptualization, (2022).

Relationship between cash management practices and Financial Performance

Empirical studies on cash management practices and financial performance showed mix results based on various sectors, variable used, environment and context. For instance Ndirangu (2017) conducted a study on the effect of cash management and performance of companies listed in Nairobi Security Exchange. Company sale was found to have a negative and insignificant effect on financial performance. Abioro (2013) established that a mere availability of cash (liquidity) without proper management does not necessarily translate into favorable financial performance. Kinyanjui et al (2017) stated that, cash holding practices and use of technology in cash management have a relevant effect on financial performance of SMEs in Mogadishu. Mohamed and Omar (2016) cash management was found to have a high effect on financial performance of private secondary schools. Similarly, Murkor et al., (2018) found that operating cash flow management had significant and positive effect on return on assets and insignificant and positive effect on return on equity. A related study conducted in manufacturing firms in Srilanka found an insignificant relationship between cash ratio and financial performance and cash turnover ratio and financial performance (Janaki, 2016). Yousef (2016) also found that 67% of SMEs in Jordan had no knowledge about cash control procedures. The above studies generally suggest that cash management may not contribute to financial performance.

Theoretical Review

There are different theories that related to this study but the study was anchored to free cash flow theory.

Free cash flow theory

The free cash flow theory was developed by Jensen (1986), He stated that companies generating excess cash required to finance projects with positive returns face greater agency problems as the free cash flow exacerbates discrepancy of benefit amongst stakeholders and managers. He further opinion that, managers have a preference to hold a high cash level to enhance the volume of total assets in their control. Managers furthermore tried to put on the distinguishing powers in the organization's financing and investing decisions. The implication of free cash flow theory by Jensen is that companies with high levels of free cash flow are additionally expected to commence investments and takeovers that are value declining. Huseyin (2011) asserts that managers have an incentive to hoard cash to increase the amount of assets under their control and to gain discretionary power over the firm investment decision. Having cash available to invest, the manager does not need to raise external funds and to provide capital markets detailed information about the firm's investment projects (Huseyin, 2011). Hence, managers could undertake investments that have a negative impact on shareholders wealth. Managers of firms with poor investment opportunities are expected to hold more cash to ensure the availability of funds to invest in growth projects, even if the NPV of these projects is negative (Huseyin, 2011). This would lead to destruction of shareholder value and, even if the firm has a large investment programme and a low market-to-book ratio. The study was anchored to this theory because free cash flow theory was established to be significant and it supports the reduction of conflict of interest involving managers and stakeholders to ensure efficient and effective management of cash flows that result in wealth maximization. Also, the theory supports the shareholder's return variable used in this research by identifying how cash flow should be managed to ensure that shareholders gain derive value for their investments in a company. This theory informed of the moderating variable (size of the firm).

Table 1: Empirical Review

S/ N	Authors/ Year	Research Topic	Methodology Used	Findings	Research GAP
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1	Nangih et al (2020)	The relationship between cash management and the financial performance of some selected oil and gas firms listed on the Nigerian Stock Exchange	The study employed judgmental research design. Data were obtained from the annual reports of five selected listed firms for five years (2013-2018) and analyzed with correlation and multiple regression techniques	The results obtained established that cash flows from operating and investing cash flows had negative and insignificant relationship with profitability whereas cash flow from financing activities had positive and significant influence on firm performance in the oil and gas sector	The study was carried out on oil and gas firms in Nigeria while this current study is conducted in deposit money banks in Nigeria.
2	Marus et al (2019)	Cash management on financial performance of business entities in Lira district	A cross sectional study design was adopted. Both purposive and stratified random samplings were used. Both Correlation and regression analysis was used	The study found that the aforementioned practices were not sustainable with time due to incompetence in forecasting receipts and payments. This led to a conclusion that cash management has an insignificant effect on financial performance.	The study was conducted in Lira district while this current study is conducted in deposit money banks in Nigeria.
3	Mose (2016)	The effect of cash management practices on the financial performance of insurance firms in Kenya between 2013 to 2015	The study adopted descriptive survey research design. A sample of 16 insurance firms was selected for the study. Primary data was used to obtain response from the respondents. ANOVA and simple regression model was employed in the analysis	From the findings the researcher established that cash budgets were powerful tools in the cash management and it was prudent for firms to do budgeting control activities in their firms. The study concluded that good cash management practices enhance accountability hence improved financial performance	The study was conducted in insurance firms in Kenya and primary data was employed while this current study is conducted on deposit money banks in Nigeria and secondary data was obtained.
4	Ahmed (2017)	Effect of cash management on the financial performance of commercial banks in Mogadishu, Somalia	The study employed a survey research design in data collection. Primary data of questionnaires was used and the data collected was analyzed using multiple regression analysis	The study results supported the view that cash management drivers had a significant effect on financial performance of commercial banks in Somalia.	The study was conducted in commercial banks in Mogadishu and primary data was used while this current study is conducted in deposit money banks in Nigeria and secondary is employed

5	Hamza et al (2015)	Cash management practices and its effect on the financial performance of SMEs in the Northern Region of Ghana	The study adopted a descriptive cross-sectional survey research design. The study used primary data of questionnaires. Descriptive and inferential statistics data analyzed was used	The study revealed that SME financial performance was positively related to efficiency of cash management (ECM) at 1 per cent significance level.	The study was conducted in SMS in Northern Region of Ghana and primary data was used while this current study is conducted in deposit money banks in Nigeria and secondary is employed
6	Oladejo et al (2017)	The impact of cash management on the performance of SMEs food and Beverage manufacturing firms in Oyo state	The study employed primary data with a structured questionnaire. Descriptive analysis was adopted in analyzing the data and the formulated Hypothesis were tested through the use of chi-square Analysis.	Findings revealed that Firms possess or hold cash for transactional precaution and speculative purpose, meeting the day to day bills as they fall due, provision of fund for emergency obligation and ensuring opportunities in futuristic dealings form parts of responsibilities of general managers which require skilful management capabilities. Also the result revealed that Cash management had significant influence on the performance of Food and Beverages manufacturing SMEs	The study was conducted in food and Beverage manufacturing firms in Oyo state and primary data was used while this current study is conducted in deposit money banks in Nigeria and secondary is employed
7	Dhruba (2019)	The impact of cash management on profitability in small manufacturing organization in Dhruba	The study adopted correlational research design. Purposive sampling method was adopted while undertaking research. 80 samples were considered while collecting data. Data were analyzed using mean, correlation and regression models.	Study found that Cash management has an insignificant but positive effect on profitability. It clarifies that conversion cycle, cash flow and inventory manage positively effects to the profitability but the effect is nominal.	The study was conducted in small manufacturing organization in Dhruba and primary data was used while this current study is conducted in deposit money banks in Nigeria and secondary is employed
8	Appah et al (2021)	Cash flow accounting and corporate financial performance of	The study employed ex-post facto and correlational	The multiple regression result disclosed a positive and significant relationship between	The study was conducted in consumer goods firms on Nigeria

	listed consumer goods firms in Nigeria	research design. The population of the study consisted of all listed consumer goods firms and Taro Yamene model was applied to arrive at the sample size. The study employed univariate, bivariate and multivariate analysis of data.	operating cash flow, financing cash flow and firm size to profit after tax of listed consumer goods manufacturing companies while investing activities and financial leverage revealed a negative and significant relationship	while this current study is conducted in deposit money banks in Nigeria
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Source: Compiled by Researcher, (2022).

METHODOLOGY

Research Design: This study adopted ex-post facto research design and correlational research design. This is because ex-post facto research design is a systematic empirical inquiry in which the data, already existed while a correlational research design is the measurement of two or more factors to determine or estimate the extent to which the values for the factors are related or change in an identifiable pattern (Appah, 2020).

Population and Sample of the Study: The population of the study is made up of deposit money banks listed on the Nigerian Exchange Group for the year 2014 - 2020. The sample size of this study is made up of five deposit money banks (First Bank of Nigeria, First City Monument Bank Plc, Guarantee Trust Bank, United Bank for Africa Plc & Zenith Bank Plc) which were purposively selected on the availability of data during the years 2014 to 2020.

Source of Data Collection and Analysis Technique: The study employed secondary sources of data collection mainly from the published audited financial statements of deposit money banks in Nigeria obtained from their website for the study period to analyze the relationship of the independent variables on the dependent variables. The data collected were analyzed using descriptive statistics, correlation analysis and multiple linear regression analysis of panel data for the years 2014 to 2020.

Variables of the Study: The study employed independent, dependent and moderating variables. The independent variables consist of cash and bank balances, cash conversion cycle and cash turnover while dependent variable consists of return on equity, and firm's size was used as moderating variable. The variables were measured as follows:

Table 2: Measurement of variables

Measures	Category	Abbreviation	Source	Formula adopted for the study
Cash and bank balances	Independent Variable	DCP	Desk Researcher	$\frac{\text{Cash and Bank balances}}{\text{Current Liability}}$

Cash Conversion Cycle	Independent Variable	CCC	Emmanuel, (2015)	inventory conversion period + debtors conversion period – payables conversion period
Cash Turnover	Independent Variable	CTUR	Ando et al., (2019); Marus et al. (2019)	<u>Interest Income</u> Cash and cash Equivalent
Return on Equity	Dependent Variable	ROE	Abdullahi et al. (2020); Leonard et al. (2018);	<u>Profit After Taxes</u> Total Equity
Firm Size	Moderating Variables	LogTA	Appah (2020)	Natural logarithm of assets

Source: Compiled by Researcher (2022)

Model Specification: Model specification is the determination of the endogenous and exogenous variables to be included in the model as well as the a priori expectation about the sign and the size of the parameters of the function (Gujarati & Porter, 2009). The following model was developed based on the study variables:

Return on Equity (ROE) Model

ROE = f (CBB, CCC, CTUR, FS) 1

This can be written in Ordinary Least Square (OLS) form as:

ROE_t = a₀ + a₁CBB_t + a₂CCC_t + a₃CTUR_t + a₄FS_t + U_t..... 2
a₁>0; a₂>0; a₃>0

Where: ROE = Return on Equity as proxy for financial performance

CBB = Cash and banks balance as proxy for cash management practices

CCC = Cash Conversion Cycle as proxy for cash management practices

CTUR = Cash Turnover as proxy for cash management practices

FS = Firms size as proxy for moderating variable

t = time period under study

a₀ = constant

a₁-a₄ = parameter or coefficient of explanatory variable

u = error term

Decision Rule: Accept if P-value greater than 0.05 otherwise reject

The tests of hypotheses were considered two tailed and was carried out at a 95% confidence interval. If the statistical analysis shows that the significance level is below the cut-off value we have set (which is 0.05), we will reject the null hypothesis and accept the alternate hypothesis. Alternatively, if the significance level is above the cut-off value, the null hypothesis would be accepted.

RESULTS AND DISCUSSIONS

This section of the study presents the results and discussion arising from the data obtained from the annual reports of the sampled deposit money banks in Nigeria.

	N	Range	Minimum	Maximum	Sum	Mean	Std	Skewness	Kurtosis
CBB	35	2.03	.01	2.05	8.23	.2745	.39849	3.526	3.855
CTUR	35	2.68	.13	2.81	28.83	.0841	.57090	1.360	2.909
CCC	35	2.45	.11	2.91	75.83	.0743	.47092	2.340	2.323
FS	35	.14	.00	.14	2.52	.0523	.04039	-1.015	.066
ROE	35	.97	.00	.97	18.28	.0523	.6094	-1.237	.391
Valid N	35								

Source: Author's computation Using SPSS 25

Table 3 presents the summary of descriptive statistics of cash and banks balances (CBB), cash turnover (CTUR), cash conversion cycle (CCC), firms size (FS) and return on equity (ROE) for the study. Given the scope of the study (2014-2020) in five selected deposit money banks and the frequency of the annual data, all the variables have 35 observations. As shown in Table 3, the sum, mean, maximum and minimum, standard deviation and variance as well as the skewness and kurtosis of our variables of interest are evident. The various statistics indicate that the variables have different distributions. The skewness and kurtosis statistics provide useful information about the symmetry of the probability distribution of various data series as well as the thickness of the tails of these distributions respectively. These two statistics are particularly of great importance since they are used in the computation of Jarque-Bera statistics which is used in testing for the normality or asymptotic property of a particular series. CBB, CTUR and CCC are positively skewed showing that they have a long right tail and FS and ROE are negatively skewed indicates a short left tail. Kurtosis statistics of the all variables are positive and less than 3 implying the extent of flatness of the distribution of the data series relative to normal.

Table 4: Bivariate (Correlation) analysis of the Model

	ROE	CBB	CTUR	CCC	FS
ROE	Pearson Correlation				
	Sig. (2-tailed)				
CBB	Pearson Correlation	.587**			
	Sig. (2-tailed)	.002			
	N	36			
CTUR	Pearson Correlation	.130	-.456**		
	Sig. (2-tailed)	.434	.005		
	N	36	36		
CCC	Pearson Correlation	-.481	.190	-.289	
	Sig. (2-tailed)	.053	.267	.087	
	N	36	36	36	
FS	Pearson Correlation	.355*	.171	-.038	-.010
	Sig. (2-tailed)	.040	.318	.828	.952
	N	36	36	36	36

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Author's computation Using SPSS 25

Table 4 showed the result of Pearson Correlation Coefficient of relationship between cash and banks balances (CBB), cash turnover (CTUR), cash conversion cycle (CCC), firms size (FS) and return on equity (ROE). The table above showed a correlation relationship coefficient of $R = 0.587$ which indicated positive correlation between cash and banks balances (CBB) and return on equity (ROE). R-value of 0.130 indicated weak positive relationship between cash turnover (CTUR) and return on equity (ROE). Furthermore, R-value of -0.481 indicated negative relationship between cash conversion cycle (CCC) and return on equity (ROE), and finally, R-value of 0.355 indicated that, firms size moderate the relationship between cash management practices and financial performance of listed deposit money banks in Nigeria.

Table 5: Model Summary And ANOVA

Model	R	R ²	Adjusted R Square	Std. Error of the Estimate	D-W	F	Sig (P)
1	.658 ^a	.433	.391	.23479	1.176	10.294	.000

a. Predictors: (Constant), CBB, CTUR, CCC, FS
b. Dependent Variable: ROE

Source: Author's computation Using SPSS 25

From the table 5, it was observed that, the coefficient of determination for the regression as depicted by the $R = 0.658$ and R^2 value of 0.433 suggested that, about 43 percent of the systematic variation of the dependent variable (return on equity) is accounted by the explanatory variable. The remaining 57 percent is caused by variable that are not included in the model which is accounted for stochastic error term. The Durbin Watson statistic value of 1.176 following the rule of thumb indicates that there is no serial correlation present in the model, hence, there is no need for higher order autocorrelation tests. The table also showed a regression F-statistics ($F = 10.294$), $P = 0.000 < 0.05$ which measured the collective relationship of the explanatory variables in the model indicates that, the explanatory variables have joint significant relationship between cash management practices measures of cash and banks balances (CBB), cash turnover (CTUR), cash conversion cycle (CCC), firms size (FS) and and financial performance measure of return on equity (ROE).

Table 6: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.665	.112		5.944	.000
	CBB	.443	.124	.587	3.579	.001
	CCC	-.068	.035	-.481	-1.961	.053
	CTUR	.069	.086	.130	.795	.434
	FS	.982	.457	.355	2.147	.040

a. Dependent Variable: ROE

Source: Author's computation SPSS V.25

Decision Rule: Reject H_{01} to H_{04} if Sig (P-value) is less than 0.05 significant level, otherwise Accept.

Statement of Hypotheses:

H_{01} : There is no significant relationship between cash and bank balances on return on equity (ROE) of listed deposit money banks in Nigeria.

H_{02} : There is no significant relationship between cash conversion cycle and return on equity (ROE) of listed deposit money bank in Nigeria.

Ho₃: There is no significant relationship between cash turnover and return on equity (ROE) of listed deposit money bank in Nigeria.

Ho₄: Firms size does not moderate any significant relationship between cash management practices and financial performance.

Decision: The above table, indicated that, the probability value $P = 0.053 < 0.05$ revealed that the relationship between cash and bank balances (CCB) and return on equity (ROE) is statistically significant at 0.05 alpha level. Therefore, we reject the null hypothesis and accept the alternate which means, there is significant relationship cash and bank balances (CBB) and return on equity (ROE) of listed deposit money bank in Nigeria. The probability value $P = 0.001 < 0.05$ revealed that the relationship between cash conversion cycle (CCC) and return on equity (ROE) is statistically significant at 0.05 alpha level. Therefore, we reject the null hypothesis and accept the alternate which means, there is significant relationship cash conversion cycle (CCC) and return on equity (ROE) of listed deposit money bank in Nigeria. The probability value $P = 0.434 > 0.05$ revealed that the relationship between cash and bank balances (CBB) and return on equity (ROE) is not statistically significant at 0.05 alpha level. Therefore, we accept the null hypothesis and reject the alternate which means that, there is no significant relationship between cash turnover (CTUR) and return on equity (ROE) of listed deposit money bank in Nigeria. Finally, the probability value $P = 0.040 < 0.05$ revealed that, firm size moderate the relationship between cash management practices and financial performance and it is statistically significant at 0.05 alpha level. Therefore, we reject the null hypothesis and accept the alternate which means, firms size had significant relationship between cash management practices and financial performance of listed deposit money banks in Nigeria.

Heuristic Model Representing Summary of Results

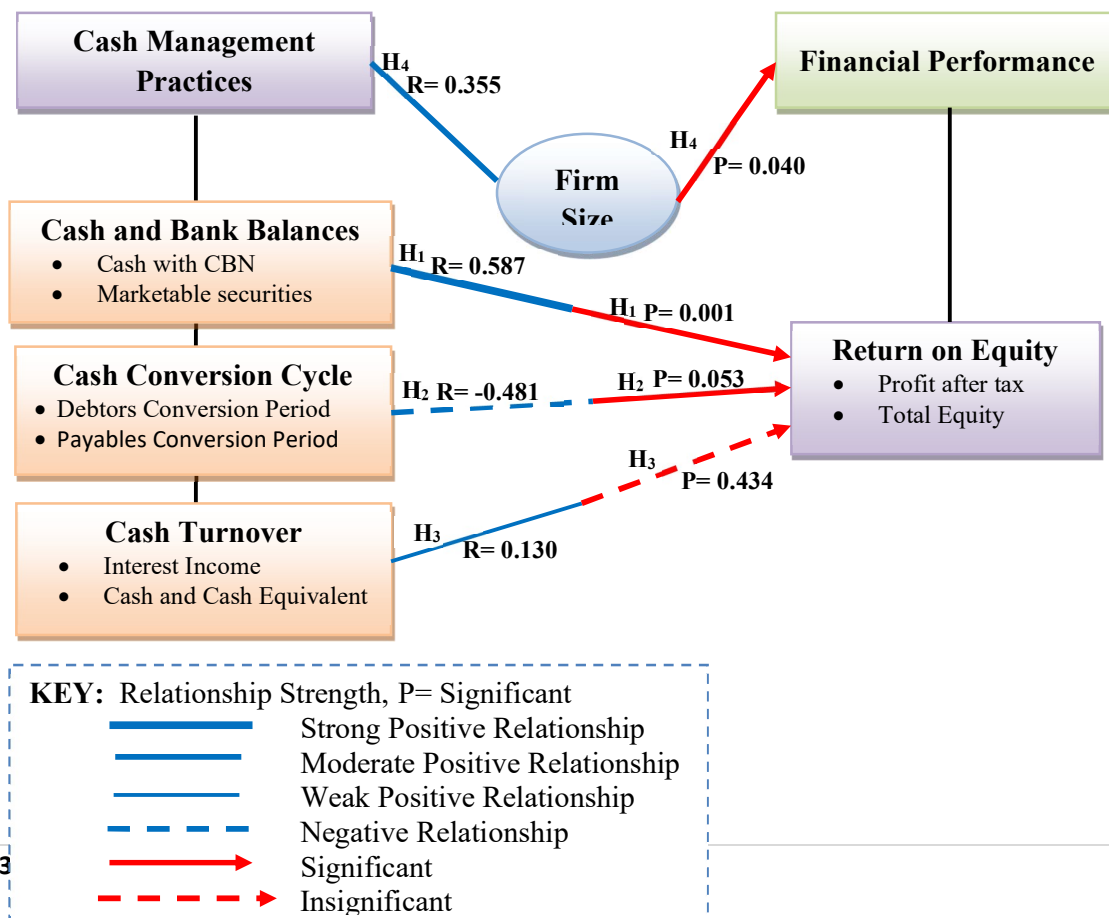


Figure 2: Heuristic model showing the positive, negative and significant relationship between cash management practices and financial performance of listed deposit money banks in Nigeria.

Source: Constructed by Researchers (2022)

Discussion of Findings

Cash and Bank Balances and Return on Equity: Results from the correlation analysis and regression coefficient presented in the above heuristic model revealed that, cash and banks balances (CBB) in cash management practices had strong positive relationship and statically significant with return on equity (ROE) in financial performance as indicated in the heuristic model summary of result with R-value = 0.587 and P-value = 0.001. The finding of this study was in-line with Ahmed (2017, the study results supported the view that cash management drivers had a significant effect on financial performance of commercial banks in Somalia. Also, Mose (2016) suggested a statistically significant association between cash flows and corporate financial performance. Other empirically support the study includes; Hamza et.al (2015); Sulaiman et al. (2019) etc. Nevertheless, some prior empirical findings disagreed with this study, for instance Soet, et al (2018) result revealed that return on equity showed a positive and insignificant effect with operating cash flow. Also, Dhruba (2019) found that cash management has an insignificant but positive effect on profitability.

Cash Conversion Cycle and Return on Equity: Results from the correlation analysis and regression coefficient presented in the above heuristic model revealed that, cash conversion cycle (CCC) in cash management practices had negative relationship and statically significant with return on equity (ROE) in financial performance as indicated in the heuristic model summary of result with R-value = -0.481 and P-value = 0.053. The finding of this study was in-line with Oladejo et al (2017), the result revealed that Cash management had significant influence on the performance of Food and Beverages manufacturing SMEs. Also, Ando et al (2019) study result showed that Conversion Cycle had negative relationship with financial performance likewise Nangih et al (2020) and Abdullahi et al (2020). But Faris and Nassem (2013), findings disagreed with the results, and their study indicated that, there is statistically significant and positive relationship between cash conversion cycle and financial performance.

Cash Turnover and Return on Equity: Results from the correlation analysis and regression coefficient presented in the above heuristic model revealed that, cash turnover (CTUR) in cash management practices had weak positive relationship and insignificant with return on equity (ROE) in financial performance as indicated in the heuristic model summary of result with R-value = 0.130 and P-value = 0.434. The study findings agreed with Nangih et al (2020), their results findings indicates that, cash management had insignificant effect on the financial performance. Dhruba (2019) found that cash management has an insignificant but positive effect on profitability. However, the study finding disagreed with Hamza et.al (2015), his study revealed that financial performance was positively related to efficiency of cash management. Similarly, Sulaiman et al. (2019) also disagreed with this study findings and result revealed that trade receivable period has significant positive effect financial performance.

Firm Size, Cash Management Practices and Financial Performance: Results from the correlation analysis and regression coefficient presented in the above heuristic model revealed

that, firm size (FS) moderate the relationship between cash management practices and financial performance as indicated in the heuristic model summary of result with R-value = 0.355 and P-value = 0.040. The finding of this study was in-line with Appah et al (2021). Result from multiple regression analysis disclosed a positive and significant relationship between operating cash flow, financing cash flow and firm size to profit after tax of listed consumer goods manufacturing companies.

CONCLUSIONS AND RECOMMENDATIONS

This study investigated the relationship between cash management practices and financial performance of listed deposit money banks in Nigeria. The study adopted an ex-post facto research design employing secondary sourced of data collection. Cash and banks balances (CBB), cash turnover (CTUR) and cash conversion cycle (CCC) was used as measures for cash management practices while return on equity (ROE) was used as proxy for financial performance. And firms size (FS) were employed as moderating variable. Descriptive statistics, correlation analysis and multiple linear regression method of data analysis was employed. The empirical findings showed that Cash and banks balances (CBB), cash conversion cycle (CCC) and Firm Size (FS) had significant relationship with Return on Equity (ROE) while Cash Turnover (CTUR) had insignificant relationship with Return on Equity (ROE). Therefore, the study empirically concluded that there is a positive and significant relationship between cash management practices and financial performance of listed deposit money banks in Nigeria. Based on the conclusions, the study recommended as follows;

1. Deposit money banks should avoid cash and banks balances lose rather than maintaining brought-forward cash balances for equity distribution.
2. Firms should monitor cash conversion cycle moment for shareholders wealth creation.
3. There is the need for the management of the firms to carry out a cash management analysis before distributing money to equity holder.
4. Financial manager should always prepare cash budget and cash flow statement for effective cash planning and control.

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