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## CASH MANAGEMENT AND FINANCIAL PERFORMANCE: AN EMPIRICAL STUDY OF NIGERIA BANKING SECTOR

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### ABSTRACT

*This study examined the effect of cash management on financial performance of selected deposit money banks in Nigeria. Ex Post Facto research design was adopted for the study using four selected banks operating in Nigeria. Data were generated from audited annual reports and accounts of these sampled banks and the hypotheses were tested with regression analysis via E-view 9.0. The outcome of the study revealed that cash and cash equivalent has not significantly affected return on assets of deposit money banks in Nigeria. Based on the findings, the study recommended among others that optimization of cash holding reserves should also be encouraged. Efforts should be made by management to increase the value of the company through the funding policy, the provision of incentives to managers in the form of bonus shares, and improve company performance.*

**Keywords:** Cash management, Cash and cash equivalent and Financial performance,

## INTRODUCTION

Cash is the lifeline of any association and, if not rightly and prudently managed, can affect the operations of such an association (Debie, 2022). Cash operation is one of the critical aspects of effective working capital operation. Cash operation is concerned with managing cash (inrushes and exoduses). Kyomukama (2013) sees cash operation as a broad term pertaining to the collection and disbursement of cash. Some sources of cash flux include cash from operating conditioning, trade of business means, and tips entered from other companies, while cash out overflows include settling creditors, coping force, and payments for charges (Festus, 2011). However, the import of cash operation to fiscal performance of ultramodern banking associations is well established in literature, for case, Bassey & Moses, 2015; Wolfing & Moormann, 2018; Shawar, 2019). Cash operation implies a company's capability to allocate its finances efficiently in order to cover operating charges, make investments, repay shareholders, and maintain acceptable reserves. By generating enough cash, a business can meet its everyday business requirements and avoid taking on debt. In doing so, the business has further control over its conditioning (Ali, Njoku, Ugoani, Nwaorgu & Ukeje, 2020).

With the use of introductory cash operation tools and ways, cash becomes a commercial asset that contributes directly to the establishment's profit. Eton, Uwonda, Mwosi, Ogwel & Obote, 2019) posit that cash operation decision is one of the most important opinions in an association because of the failure of fiscal coffers of numerous institutions. He further noted that, businesses are needed to maintain a balance between cash in hand and profitability when conducting day to day operations. Cash in hand is a preventative fashion that enterprises use to meet up their short- term scores. Cash operation is necessary because there are mismatches between the timing of payments and the vacuity of cash.

Although cash operation is not a new issue among drivers of banking establishment (Chandeka & Khedkar, 2014; Idowu, Essien, & Adegboyega, 2017), it's particularly important for every association as it pertains to the diurnal handling of the association, development, conservation and growth. Cash is one of the most important means in the Deposit Money Banks (DMBs) in Nigeria and should be managed efficiently to support growth and fiscal performance in Banks. A successful cash operation plays a vital part in achieving this growth, strength and fiscal performance. Hence the relinquishment of sound cash operation ways to ascertain the extent of the liquidity of Deposit Money Banks (DMBs) is also important to measure the fiscal performance.

The extant exploration on the issue of cash operation measures (cash conversion cycle, creditor's payment period and cash inflow periphery) and establishment profitability is still a veritably debatable and inconclusive area of exploration, and the findings of several studies in this area is still veritably important inconclusive and exhibits serious empirical discord indicating that the area is still veritably much an issue for consideration. For illustration, on one side of the debate are studies showing a negative relationship between cash operation variables and fiscal performance (Akinyomi, 2014; Haji 2013; Bhutto, Abbas, Rehman & Shah, 2011). On the other side of the debate are those studies showing a positive relationship (Charitou, Lois and Halim 2012; Muhammad and Syed 2011).

Research has proved that budget; an operation tool in commercial associations is used to reshape the frugality of an establishment for performance sustainability. Obi (2015) explained that commercial planning and budgeting are interwoven for effective collaboration of strategies, programs and monitoring of results. He further explained that numerous enterprises aren't making sustainable profit or don't induce sufficient finances because of

operation's failure to plan adequately. Studies have noted that cash deficit is a habitual challenge to utmost enterprises, thereby making cash operation veritably pivotal to the survival and growth of micro and small- scale enterprises (Attom, 2014).

The extant exploration on the issue of cash operation measures (cash conversion cycle, creditor's payment period and cash inflow periphery) and establishment profitability is still a veritably debatable and inconclusive area of exploration, and the findings of several studies in this area is still veritably important inconclusive and exhibits serious empirical discord indicating that the area is still veritably much an issue for consideration. More so farther studies have shown that Nigerian companies hold inordinate cash for reasons that include unstable political climate, planned coastal investments, anticipated unborn investments, accessions and labor restlessness. It can thus be derived from the above that neither deficit of cash or inordinate cash improves the performance of fiscal institution. This study thus examines the extent cash operation system could affect the performance of named banks in Nigeria, using cash and cash equivalent and returns on assets of deposit money banks in Nigeria.

## **Conceptual Review**

### **Cash and Cash Management**

Cash inflow is simply the movement of cash and cash equivalent within the business. Positive cash inflow from operations indicates that a company's liquid means are perfecting. This enables the reality to settle its debt, achieve profit maximization to shareholders, pay charges and give a buffer against unborn fiscal challenges. Negative cash inflow indicates that a company's liquid means are dwindling (Ogbonnaya, Ekwe, & Uzoma, 2016). Cash operation is thus the process of icing that businesses have good cash balances to insure that they continue to stay in business. Therefore, prudent cash operation ensures that businesses would be suitable to recognize its debt scores as and when they fall due and also to grease the responsibility of the establishment to pay for its forthcoming charges (Attom, 2014). Cash operation forms an integral part of working capital operation. Hence, it's considered as part of the compass of a good working capital operation in ultramodern businesses (Brealey, Myers & Allen, 2008).

The term cash with reference to cash operation is used in two senses. In a narrow sense it's used astronomically to cover cash (currency) and generally accepted coequals of cash similar as cheques, drafts and demand deposits in bank. The broader view of cash also includes near cash means, similar as marketable securities and time deposits in the banks. The main specific of these is that they can be readily vended and converted into cash. They also give a short- term investment outlet for redundant cash and are also useful for meeting planned exodus of finances. We employ the term cash operation in the broader sense. Irrespective of the form in which it's held a distinguished point of cash, as a means is that it has no earning power (Khan & Jain, 2019).

So simply starting, operation of near cash means, i.e. marketable securities, time deposits in bank, is called cash operation. Astronomically speaking, receivables and force is also nominated as operation of cash because receivables and force are also supposed to readily converting into cash. According to ultramodern approach fiscal operation can be broken down into major opinions as function of finance, which is (a) Investment decision, (b) Backing decision and (c) tip policy decision. Cash operation function comes under investment decision. Investment decision refers to two major opinions.

### **Cash and Cash Equivalent**

Cash overflows count movements between particulars that constitute cash or cash equivalents because these factors are part of the cash operation of an enterprise rather than part of its operating, investing and financing conditioning. Cash operation includes the investment of redundant cash in cash equivalents.

Cash equivalents are held for the purpose of meeting short- term cash commitments rather than for investment or other purposes. For an investment to qualify as a cash equivalent, it must be readily convertible to a known quantum of cash and be subject to an insignificant threat of changes in value (Odo, & Udodi, 2022). Thus, an investment typically qualifies as a cash equivalent only when it has a short maturity of, say, three months or lower from the date of accession. Investments in shares are barred from cash equivalents unless they are, in substance, cash equivalents; for illustration, preference shares of a company acquired shortly before their specified redemption date (handed there's only an insignificant threat of failure of the company to repay the quantum at maturity).

### **Financial Performance**

The performance is the result of strategies the establishment employs to achieve fiscal pretensions. The position of success of an establishment is measured through its fiscal performance grounded on a named period of time (Liao and Wu (2009). Return on asset measure the effectiveness of the profitable reality in using its means to induce profit especially in manufacturing enterprises, the advanced this rate, the better for the profitable reality as it indicates the operation effectiveness in using its means to induce profit (Ogundipe, Ogundipe & Ajao, 2012). Mathematically, Return on Asset rate is = Net profit/ Total means

Cash operation allows enterprises to take advantage of the moment. Enterprises can make profitable investment deals that have a huge impact on their durability whether for restructuring purposes or for taking advantage of new openings. On the other hand, the cash operation must be sound, thorough and logical in order to avoid the negative impact of holding too important cash (Elkinawy & Stater, 2007). The performance of any establishment not only plays the part to increase the request value of that specific establishment but also leads towards the growth of the whole assiduity which eventually leads towards the overall substance of the frugality (Ahmed, Zeng, Sinha, Flavell & Massoumi, 2011). Return on means (ROA) is an index of how profitable a company is relative to its total means. ROE gives an idea as to how effective operation is at using its means to induce earnings. Frésard (2010) set up substantiation those enterprises holding advanced cash than their challengers achieve better performance and profitability when measured by return on means. He presented substantiation that establishment's request- share increased than that of their challengers as a result of effective commercial cash operation.

### **Empirical Studies**

Dibie (2022) examined the impact of cash operation on fiscal performance of quoted manufacturing enterprises in Nigeria. The findings reveal that Cash conversion cycle has a positive and significant impact on fiscal performance, Creditors' payment Period (CPP) has a positive impact on the firm fiscal performance, which is significant at 5%, cash inflow periphery (CFM) appreciatively impacts fiscal performance, which is also significant at 5. Eton, Uwonda, Mwosi, Ogwel and Obote (2019) established the effect of cash operation on fiscal performance of business realities in Lira quarter. A cross sectional study design was espoused and data was collected by use of structured and closed concluded questionnaire. Still, the study set up that the forenamed practices weren't sustainable with time due to

incapacity in soothsaying bills and payments. This led to a conclusion that cash operation has an insignificant effect on fiscal performance. Abubakar, Sulaiman, Usman, and Mohammed (2019) showed that capital acceptability rate, return on asset and loans-to-deposit rate have positive and significant effect on the fiscal performance; while non-performing loans rate, cost-to-income rate and liquidity rate have no significant effect of the fiscal performance measured by the return on equity. Afrifa, and Tingbani,(2017) conducted a study on the relationship between working capital operation( WCM) and SMEs' performance by taking into consideration the presumptive effect of cash inflow. The study espoused a panel data retrogression analysis on a sample of 802 British quoted small and medium enterprises listed on the indispensable investment request for the period from 2004 to 2013. The results of the study demonstrated the significance of cash inflow on SMEs' WCM and performance. According to the findings, WCM has a significant negative impact on SME performance. Emenike and Obasi (2016) reported amongst others, substantiation of positive long-run relationship between marketing of bank services on DMBs fiscal performance in Nigeria. Alice and Mulyungi (2018) anatomized the effect of cash operation on the fiscal performance of cooperatives banks in Rwanda. The results further revealed a strong relationship between cash operation and fiscal performance. The study concluded that cash operation is a crucial tool in the fiscal operation of the banks since cash forms the biggest asset of the bank. Using insurance data from Pakistan, Shawar (2019) proved amongst others that size of the company has a negative impact on deals and investment profit. A plethora of empirical studies have inversely estimated the determinants of fiscal performance. Gemechu (2016) for illustration examined the effect of bank-specific, assiduity-specific and macroeconomic determinants on banks' profitability in Ethiopia. The study applied balanced panel data of eight Ethiopian marketable banks that covers the period of 2002- 2012. The paper uses ordinary least square (OLS) fashion to see the impact of determinants on profitability of Ethiopian marketable banks. The findings of the study show amongst other that all bank specific determinants except credit threat and expenditure operation have statistically significant and positive relationship with banks' profitability. Ogbonnaya, Ekwe, and Uzoma, (2016) examined the relationship between cash inflow and performance in the Banking sector of Nigeria. The study involved a check of four (4) Banks quoted in the Nigeria Stock Exchange. Data were attained from the periodic report and accounts of named Banks. The data were subordinated to statistical analysis using correlation fashion. The result of the study revealed that operating cash inflow has a significant and strong positive relation with performance in the Banking sector in Nigeria, it was also linked that investing cash inflow and backing cash inflow have negative and weak relationship.

## **METHODOLOGY**

### **Research Design**

This study used *Ex Post Facto* research design in the plan, structure and strategy of the investigation conceived so as to obtain answers to research questions. Basically, the research design has two purposes.

The population of this study consists of twenty two (22) deposit money bank quoted on the Nigerian Exchange Group (NXG). This study used purposive sample technique to select four deposit money banks in Nigeria. These banks include; Access bank Nigerian Plc, Eco bank Nigerian Plc, Fidelity bank Nigerian Plc and First bank Nigerian Plc.

The study is thus mainly based on the secondary data. The main sources of data for the purpose of this study are the published financial statements of the sampled deposit money banks in Nigeria. It constitutes mostly the annual reports, which comprises balance sheets, cash flow statements, and profit and loss account statements.

All other available published and unpublished materials concerning the study as well as some journal abstracts have also been used. In addition to that, a number of relevant websites were visited to ensure the availability of information across borders regarding the operation of bank and financial institutions.

**Model Specification**

This study modified the Muhammed (2015) model which is presented below;

$$ROA = \beta_0 + \beta_1 CCC + \beta_2 SIZE + \beta_3 LEV + \beta_4 GROWTH + \beta_5 GDP + \epsilon_{it} \dots\dots\dots (i)$$

$$PM_{it} = f( CCC, CPP CFM ), \dots\dots\dots (ii)$$

Thus the econometric model is presented thus;

$$ROA_{it} = f( CCE, Firm Size, Leverage) \dots\dots\dots ii$$

**Explicit:**

$$ROA_{it} = \alpha + \beta_1 CCE_{it} + \beta_2 FSZ_{it} + \mu \dots\dots\dots v$$

Where:

ROA = Return on Assets

CCE = Cash and cash equivalent

FSZ = Firm size

$\alpha$  = Constant

$\mu$  = error term

**Methods of Data Analysis**

Regression technique was used to test hypotheses. Descriptive statistics were adopted to measure the individual characteristics of the variables. On the other hand, Regression analysis was adopted to ascertain the effect of the independent variables on the dependent variable. In order to achieve this, Econometric Views (E-Views) Version 9.0 was adopted.

**Decision rule**

Accept the null hypothesis if the P-Value is greater than 0.05 and then the alternate hypothesis will be rejected.

**DATA ANALYSIS**

**Table 1: Descriptive Statistics**

	CCE	ROA	FSZ
Mean	2.23E+08	0.018150	4.84E+09
Median	67653246	0.019474	3.79E+09
Maximum	1.08E+09	0.025419	1.17E+10
Minimum	-1.24E+08	0.012213	1.75E+09
Std. Dev.	3.74E+08	0.004350	3.35E+09
Skewness	1.486617	0.053589	0.950322
Kurtosis	3.852690	1.825231	2.703349
Jarque-Bera	3.986335	0.579821	1.541855
Probability	0.136263	0.748331	0.462584
Sum	2.23E+09	0.181500	4.84E+10
Sum Sq. Dev.	1.26E+18	0.000170	1.01E+20
Observations	10	10	10

**Source: E-view computation, 2023**

Table 1 shows the mean (average) for each of the variables, their maximum values, minimum values, standard deviation and Jarque-Bera (JB) Statistics (normality test). The results in table 1 provided some insight into the nature of the selected Nigerian quoted banks that were used in this study.

Firstly, it was observed that on the average over the ten (10) years (2012-2021), the sampled quoted deposit money banks in Nigeria were characterized by positive effects. Also, the large difference between the maximum and minimum value of the cash and cash equivalent (CCE), return on assets (ROA) and firm size (FSZ) show that the sampled banks in this study are not dominated by banks with large cash and cash equivalent.

The Jarque-Bera (JB) which test for normality or the existence of outliers or extreme values among the variables shows that most of the variables are normally distributed at 5% level of significance. This means that any variables with outlier are not likely to distort our conclusion and are therefore reliable for drawing generalization.

### Test of Hypothesis

$H_{01}$ : There is no significant effect of cash and cash equivalent on returns on assets of deposit money banks in Nigeria.

**Table 2: Regression analysis between CCE, ROA and FSZ**

Dependent Variable: CCE

Method: Least Squares

Date: 04/01/23 Time: 10:49

Sample: 2012 2021

Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.07E+09	9.92E+08	1.076095	0.3176
ROA	-4.85E+10	4.21E+10	-1.153132	0.2867
FSZ	0.007496	0.054573	0.137359	0.8946
R-squared	0.381792	Mean dependent var	2.23E+08	
Adjusted R-squared	0.205162	S.D. dependent var	3.74E+08	
S.E. of regression	3.34E+08	Akaike info criterion	42.33348	
Sum squared resid	7.80E+17	Schwarz criterion	42.42426	
Log likelihood	-208.6674	Hannan-Quinn criter.	42.23390	
F-statistic	2.161529	Durbin-Watson stat	1.725607	
Prob(F-statistic)	0.185768			

In Table 2, R-squared and adjusted Squared values were (0.382) and (0.205) respectively. The indicates that the independent variable, cash and cash equivalent (CCE) explain about 21% of the systematic variations in return on assets (ROA) and firm size (FSZ ) of our samples banks over the ten years periods (2012-2021). The F-statistics is (2.162) and its  $P_1$ -value is 0.287) while  $P_2$ -value is 0.895 shows that the regression model is well specified.

**Test of Autocorrelation:** using Durbin-Waston (DW) statistics which we obtained from the regression result in table 2, it is observed that DW statistics is 1.726 and an Akika Info Criterion and Schwarz Criterion which are 42.333 and 42.424 respectively, also further confirmed that our model is well specified. In addition to the above, the specific finding from the explanatory variable is provided below.

Based on the t-value of -1.153132 and p-value of 0.186, was found to have a negative effect on the sampled banks and this effect is not statistically significant as its p-value is higher than 0.05 values. This result, therefore suggests that we should accept our null hypothesis one

which states that cash and cash equivalent has no significant effect with return on assets of deposit money banks in Nigeria.

## CONCLUSION AND RECOMMENDATION

### Conclusion

This study examined the effect of cash management on financial performance of selected deposit money banks in Nigeria. *Ex Post Facto* research design was adopted for the study using four selected banks operating in Nigeria. Data were generated from audited annual reports and accounts of these sampled banks and the hypothesis was tested with regression analysis via E-view 9.0. The outcome of the study revealed that cash and cash equivalent has not significantly affect return on assets of deposit money banks in Nigeria. This implies that returns on assets though affecting cash management, but cannot be used for policy making; hence return on assets was insignificant.

Based on the outcome from the findings, the study therefore recommended that management should set proper exit strategies for a high conservative cash management policy measure after considering banks' lending attitudes and capital market conditions.

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