Determinants of Corporate Cash Holding In Nigerian Banking Sector (2005-2014)
Ubesie M.C., Okorie N.I. and Nwachukwu B.C.
Department of Accountancy, Enugu State University of Science and Technology, Enugu State, Nigeria.

ABSTRACT
This study examines the determinants of Bank's Corporate Cash Holding in Nigeria. The study seeks to explore the relationship that exists between cash holding and profit after tax, volume of deposit and loans and advances. The study adopted ex post facto research design while secondary data were obtained from the annual reports of Access Bank, First Bank of Nigeria and Zenith Bank for the period of ten years, (2005 to 2014). A simple linear regression analysis was used in the analysis. The findings showed that corporate cash holding has a significant relationship with profit after tax, volume of deposits, and loans and advances. The relationship is stronger in the First Bank of Nigeria, moderate at the Access bank and weak in the Zenith Bank. The study among others recommends that banks should adhere strictly to the laid down rules and regulations guiding the banking businesses in order to avoid illiquidity.

Keywords: Cash holding, Banks, 2005-2014 and Nigerian.

INTRODUCTION
The importance of cash holding cannot be over emphasized because it creates a level of confidence on the holder, and whenever the cash is not available, it takes away the freedom to react to drum beatings of the money/capital market. Infact holding cash at its required quantity as and when needed makes the holder a King [1]. Cash holding is that money that a person or company keeps available to spend rather than investing. Cash in this case is the cash and cash equivalents which a company owns whether it is at the place of business or in the bank [2]. These cash equivalents are short term highly liquid investment. Cash is known as most liquid and less productive assets of a firm [3]. If cash remains idle it earns nothing but involves cost in terms of interest payable to finance it. Although cash is least productive current assets, firms should hold certain amount of cash for marketable securities. The available cash serves as reserve against unforeseen business problems. Cash holding is defined as cash in hand or readily available for investment in physical asset and to distribute to investors [4]. [5], opined that holding cash is at a cost which is the
opportunity cost of the capital invested in liquid assets. The potential profit forgone on holding large cash balance is an opportunity cost to the firm.

Primarily, the three motives of holding cash are transaction motive speculative motive and precautionary motive. The transaction motive expresses the need for everybody to maintain cash balance in order to meet up with the daily transactions.

On the other hand, speculative motive is a situation where money is kept for speculation purposes whereby the holder takes advantage to invest in any available project in order to make benefits, while the precautionary motive is based on the fact that the future is unknown therefore a certain cash level is maintained in order to meet the future uncertainty [6].

Every investor holds cash because it can play a vital role in meeting a short term savings goal or play a larger part in a long-term asset port-folio.

According to [7], a bank is an institution that deals in money and its substitutes and provides other financial services. Banks accept deposits from the surplus units of the society and make loans to the deficit units and derive a profit from the difference in the interest rates paid and charged respectively. Banks are critical to National economy. The primary function of banks is to put their account holder’s money to use by lending it out to others who can then use it for their various business ventures [8].

In the banking sector, being liquid is crucial to the on-going viability of any bank as liquidity can have dramatic and rapid effects on even well capitalized banks. The issue of cash holding in banks is likened to banks liquidity which means the ease with which an asset can be turned to cash with certainty [9]. A bank is considered to be liquid when it has sufficient cash and other short term financial instruments like treasury bill, treasury certificate and call money in its port-folio together with the ability to raise funds quickly from other sources for it to meet its payment obligation and other financial commitment as and when due. Liquidity in banks can be defined as the capacity of the bank to meet promptly its current obligations, that is, its customers demand [10].

[11], opined that for the operation of the firms to run smoothly, optimum level of liquidity within the firm should be maintained. The factors determining the cash holding level could be traced to any or combination of the turnovers level, volume of deposit, quantity of loans and advances, debt collection period, expenses on miscellaneous, payment (credit) period, market capitalization, firm size, growth opportunities, lever ages, cash flows, size and ownership structures.

Cash holding in the banking sector is denoted by the bank's cash in the vault, cash with the CBN and with other banks and these are found in the asset side of a bank's balance sheet.
The volume of deposits is those deposits from customers and from other banks, which could be seen as the volume of turnover (sales) when it concerns non-financial companies or establishment. The cash held in the vault, with the Central Bank of Nigeria and with other banks are regarded as non-earning assets because idle cash, yields no direct income but are used for normal day-to-day transactions [12].

The loans and advances extended to customers, other banks, staff etc represent the account receivables (Debtors). The profit after tax could be used in determining the volume of corporate cash holding because tax is taking to be part of the banking activities. Banks being in the business of loaning out to the deficit units make more interest income when more loans are given out which in-turn increases their profitability and will on the other hand experience lesser profit if the volume of loan decreases. It is worthy to note that the more cash is kept on hold.

**Statement of the Problem**

Banks deal on cash as their business is to carry out financial services. They act as intermediary between the surplus and deficit units of the society by way of extending out loans from the deposits made by the surplus units. The more the loans and advances the more the interest income but on the other hand, they are expected to keep back certain percentage of the money to enable them meet up with the demands of their depositors who would without notice come to collect what they deposited with the bank. It is pertinent to note that the ability to meet up with these demands depend on the quantity of cash holdings on the statement of financial position. Banks can lose the confidence of their customers if on coming to the bank to collect money deposited, their demands or hope were shattered due to lack of fund. This can lead to customers coming to withdraw their money from such a bank.

**Objectives of the Study**

The main objective of this study is to examine the determinants of bank’s corporate cash holding. Specifically the study will explore;

- To evaluate the extent which profitability (profit after tax) determines corporate cash holding in a banking sector.
- To ascertain the level at which the volume of deposits determine corporate cash holding in banking sector.
- To examine the relationship between the extension of loans and advances and the volume of corporate cash holding in a banking sector.

**Research Questions**

- To what extent does a bank’s profit after tax determine its corporate cash holding?
- How does a bank’s volume of deposits affect its corporate cash holding?
- What is the level at which extension of loans and advances affect corporate cash holding.

**Hypotheses**

- Profit after tax has no effect on corporate cash holding
- Volume of deposits has no effect on corporate cash holding
- Extension of loans and advances has no effect on corporate cash holding.

**Theoretical Review:**

This study anchored on Pecking order theory. This theory which was propounded by [13], postulates that the cost of financing increases with asymmetric information, hence funding comes from three sources, internal funds, debt and new equity. It is on the basis of this that the form of debt a firm chooses acts as a signal of its need for external finance. The theory therefore states that a company should prefer to finance itself first internally through retained earnings, and if this source of funding is unavailable, a company should then finance itself through debt, and finally as a last resort a company should finance itself through the issuing of new equity. Therefore firms that have higher cash flows are expected to hold larger amounts of cash as a means of internal funding.

**Methodology**

The study adopted was ex-post facto research design from secondary data which were collected from the financial statement of the sampled banks. The independent variables in this study were Profit After Tax, volume of Deposits, and Loans & Advances while the dependent variable was Corporate Cash Holding.

**Model Specification**

Y = a+b (x) was modified as follows:

**Hypothesis One:**

Ho: Profit After Tax has no effect on Corporate Cash Holding $CCH_1 = a+b (PAT_1)$

1. $CCH_1 = a+b (PAT)$
2. $CCH_1 = a + b (VD)$
3. $CCH_1 = a + b (L & A)$

Where $CCH_1 =$ Banks’ Corporate Cash Holding in the period

- a= constant
- b = coefficient of the independent variable
- $PAT_1 =$ Banks’ Profit After Tax in the period $t$
$V_D_t = \text{Bank’s Volume of Deposits in the period } t$

### Table 1: Analysis of Data

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash holding (₦’000)</th>
<th>Profit After Tax (₦’000)</th>
<th>Volume of Deposits (₦’000)</th>
<th>Loans and Advances (₦’000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>11,811,850</td>
<td>501,515</td>
<td>32,607,703</td>
<td>16,183,353</td>
</tr>
<tr>
<td>2006</td>
<td>46,263,777</td>
<td>737,149</td>
<td>110,879,330</td>
<td>54,111,173</td>
</tr>
<tr>
<td>2007</td>
<td>158,433,251</td>
<td>6,083,439</td>
<td>205,234,734</td>
<td>107,750,578</td>
</tr>
<tr>
<td>2008</td>
<td>585,809,897</td>
<td>10,056,464</td>
<td>351,789,279</td>
<td>244,595,621</td>
</tr>
<tr>
<td>2009</td>
<td>135,323,258</td>
<td>22,885,794</td>
<td>405,657,055</td>
<td>391,688,687</td>
</tr>
<tr>
<td>2010</td>
<td>17,648,392</td>
<td>12,931,441</td>
<td>522,599,666</td>
<td>403,178,957</td>
</tr>
<tr>
<td>2011</td>
<td>62,971,707</td>
<td>13,660,448</td>
<td>655,995,955</td>
<td>463,131,979</td>
</tr>
<tr>
<td>2012</td>
<td>176,228,932</td>
<td>36,353,643</td>
<td>1,118,569,273</td>
<td>557,646,719</td>
</tr>
<tr>
<td>2013</td>
<td>393,808,747</td>
<td>26,211,844</td>
<td>1,278,472,145</td>
<td>748,349,392</td>
</tr>
<tr>
<td>2014</td>
<td>351,174,879</td>
<td>39,941,126</td>
<td>2,731,459,310</td>
<td>1,075,685,685</td>
</tr>
</tbody>
</table>

*Source: Access Bank Plc Annual Reports 2005-2014*

### Table 2:

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash holding (₦’000)</th>
<th>Profit After Tax (₦’000)</th>
<th>Volume of Deposits (₦’000)</th>
<th>Loans and Advances (₦’000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>30,220,000</td>
<td>12,184,000</td>
<td>264,988,000</td>
<td>114,673,000</td>
</tr>
<tr>
<td>2006</td>
<td>49,444,000</td>
<td>16,053,000</td>
<td>390,846,000</td>
<td>175,657,000</td>
</tr>
<tr>
<td>2007</td>
<td>60,881,000</td>
<td>18,355,000</td>
<td>581,827,000</td>
<td>219,185,000</td>
</tr>
<tr>
<td>2008</td>
<td>88,302,000</td>
<td>30,473,000</td>
<td>661,624,000</td>
<td>437,768,000</td>
</tr>
<tr>
<td>2009</td>
<td>140,353,000</td>
<td>35,074,000</td>
<td>1,071,836,000</td>
<td>684,107,000</td>
</tr>
<tr>
<td>2010</td>
<td>74,894,000</td>
<td>32,123,000</td>
<td>1,330,771,000</td>
<td>1,430,805,000</td>
</tr>
<tr>
<td>2011</td>
<td>199,091,000</td>
<td>23,052,000</td>
<td>1,835,796,000</td>
<td>1,366,808,000</td>
</tr>
<tr>
<td>2012</td>
<td>288,125,000</td>
<td>71,144,000</td>
<td>2,190,270,000</td>
<td>1,645,527,000</td>
</tr>
<tr>
<td>2013</td>
<td>541,221,000</td>
<td>59,365,000</td>
<td>2,570,874,000</td>
<td>1,841,410,000</td>
</tr>
<tr>
<td>2014</td>
<td>670,045,000</td>
<td>75,175,000</td>
<td>2,570,268,000</td>
<td>2,036,879,000</td>
</tr>
</tbody>
</table>

*Source: First Bank of Nigeria Plc Annual Reports 2005-2014*
Table 3:

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash holding (₦'000)</th>
<th>Profit After Tax (₦'000)</th>
<th>Volume of Deposits (₦'000)</th>
<th>Loans and Advances (₦'000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>180,407,249</td>
<td>7,155,926</td>
<td>233,413,428</td>
<td>122,494,396</td>
</tr>
<tr>
<td>2006</td>
<td>360,291,162</td>
<td>11,488,800</td>
<td>392,863,699</td>
<td>199,707,860</td>
</tr>
<tr>
<td>2007</td>
<td>563,581,290</td>
<td>17,509,145</td>
<td>568,012,091</td>
<td>218,305,419</td>
</tr>
<tr>
<td>2008</td>
<td>1,108,827,501</td>
<td>46,524,991</td>
<td>1,161,475,513</td>
<td>413,731,491</td>
</tr>
<tr>
<td>2009</td>
<td>115,044,000</td>
<td>18,365,000</td>
<td>1,111,328,000</td>
<td>669,261,000</td>
</tr>
<tr>
<td>2010</td>
<td>130,604,000</td>
<td>33,335,000</td>
<td>1,298,552,000</td>
<td>667,860,000</td>
</tr>
<tr>
<td>2011</td>
<td>211,098,000</td>
<td>41,301,000</td>
<td>1,577,290,000</td>
<td>827,035,000</td>
</tr>
<tr>
<td>2012</td>
<td>313,546,000</td>
<td>95,803,000</td>
<td>1,802,008,000</td>
<td>895,354,000</td>
</tr>
<tr>
<td>2013</td>
<td>587,793,000</td>
<td>83,414,000</td>
<td>2,079,862,000</td>
<td>1,126,559,000</td>
</tr>
<tr>
<td>2014</td>
<td>728,291,000</td>
<td>92,479,000</td>
<td>2,034,058,000</td>
<td>1,580,250,000</td>
</tr>
</tbody>
</table>

Source: Zenith Bank Plc Annual Reports 2005-2014

**DISCUSSION**

In Table 1 the correlation coefficient (0.376) indicates that there is a medium positive correlation between the PAT and CCH of Access Bank Plc, Hence Increased PAT is associated with a moderately increased CCH. The R^2 value (0.141) indicates that 14.1% of the variations in CCH of Access Bank Plc, is explained by the PAT.

The correlation coefficient (0.412) indicates that there is a medium positive correlation between the VD and CCH of Access Bank Plc. Increased VD is associated with moderately increased CCH. The R^2 value (0.170) indicates that 17% of the variations in CCH of Access Bank Plc, is explained by the VD. On the other hand the correlation coefficient of (0.415) indicates that there is a medium positive correlation between the L&A and CCH of Access Bank Plc. The R^2 value (0.172) indicates that 17.2% of the variations in CCH of Access Bank Plc, is explained by the L&A.

Similarly, in relation to First Bank of Nigeria Plc under Table 2 the correlation coefficient (0.865) indicates that there is a strong positive correlation between the PAT and CCH. The R^2 value (0.748) indicates that 74.8% of the variations in CCH of First Bank of Nigeria Plc, is explained by the PAT.
The correlation coefficient (0.893) in table 2.2 indicates that there is a strong positive correlation between the L&A and CCH of First Bank of Nigeria Plc. The $R^2$ value (0.692) indicates that 69.2% of the variations in CCH of First Bank of Nigeria Plc, is explained by the VD.

The correlation coefficient (0.832) in the table 2.2 indicates that there is a strong positive correlation between the L&A and CCH. $R^2$ value (0.692) indicates that 69.2% of the variations in CCH.

**Zenith Bank Plc**
The correlation coefficient of (0.370) as shown in table 3.1 indicates that there is a medium positive correlation between the PAT and CCH. The R2 value (0.137) indicates that 13.7% of the variations in CCH is explained by the PAT.

Table 2 with correlation coefficient (0.221) indicates that there is a weak positive correlation between the VD and CCH of Zenith Bank Plc, hence, the R2 value (0.049) indicates that 4.9% of the variations in CCH is explained by the VD.

Finally table 3 showing a correlation coefficient of (0.166) indicates that there is a weak positive correlation between the L&A and CCH, whereas the R2 value (0.028) indicates that 2.8% of the variations in CCH is explained by the L&A.

**Summary of Findings**
The result of the analyses showed that CCH has a significant relationship with the determinants of cash holding-PAT, VD and L&A. however the nature of the relationship varies between the Banks.

**In Access Bank Plc.**
PAT has a medium positive relationship (0.376) with CCH showing that CCH constituted 14.1% of PAT.

VD has a medium positive relationship (0.412) with CCH showing that CCH constituted 17% of VD.

L&A has a medium positive relationship (0.415) with CCH showing that CCH constituted 17.2% of L&A.

**In the First Bank Nigeria Plc:**
PAT has a strong positive relationship (0.865) with CCH showing that CCH constituted 74.8% of PAT.

VD has a strong positive relationship (0.893) with CCH showing that CCH constituted 79.8% of VD.

L&A has a strong positive relationship (0.832) with CCH showing that CCH constituted 69.2% of L&A.
In Zenith Bank Plc
PAT has a strong positive relationship (0.370) with CCH showing that CCH constituted 13.7% of PAT.
VD has a strong positive relationship (0.221) with CCH showing that CCH constituted 4.9% of VD.
L&A has a strong positive relationship (0.166) with CCH showing that CCH constituted 2.8% of L&A.

CONCLUSION
Essentially, profit after tax, volume of deposit and loans/ advances individually exert significant relationship with CCH in Nigeria.

REFERENCES
3. Zeljko R, and Nemanja, S (2017); Analysis of the Determinants of Corporate Cash Holdings; Examples from companies in Serbia, the European Journal of Applied Economics, 14(1), 13-23

11. Anyanwaokoro, Mike (2008), Method and Processes of Bank Management, Johnkens and Wily Nig. Ltd; Enugu Nigeria.