

**Accounting Information and Deposit Money Banks Lending Decision**

**Albert Omoruyi OSAZEVBARU**

**PG/MGS1714734**

**Being a Thesis Presented to the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City, in Partial Fulfilment of the Requirements for the Award of Masters of Science (M.Sc.) Degree in Accounting.**

**February, 2020**

**DECLARATION**

**I, Albert Omoruyi OSAZEVBARU Declare that:**

1. The Thesis is a study carried out by me in the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City under the supervision of Professor F. K. EMENI of the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City, Nigeria.
2. The work has not been submitted for the award of any degree elsewhere.
3. All the ideas and views are the products of my personal research. All references made to works of others have duly been acknowledged.
4. I shall be solely and completely responsible for any liability that may flow from this study, if any.

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**Albert Omoruyi OSAZEVBARU**

PG/MGS1714734

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**Supervisor**

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Professor A. S. Omoye

**Head of Department**

---

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### **CERTIFICATION**

We certify that the thesis was carried out by **Albert Omoruyi OSAZEVBARU** in the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City, Nigeria and it is considered adequate in scope and quality in partial fulfilment of the requirements for the award of M.Sc. Accounting degree.

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Professor F. K. Emeni

**Supervisor**

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Date

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Professor A. S. Omoye

**Head of Department**

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Date

### **DEDICATION**

This thesis is dedicated to God Almighty, the Giver of life and knowledge; He made me sail through the different stages in the course of the programme. Glory and honour be to His holy name now and forever AMEN.

## **ACKNOWLEDGEMENTS**

I give glory to God Almighty for his guidance, grace, knowledge, strength and determination to complete this M.Sc. programme. I want to sincerely appreciate my supervisor, Professor F. K. Emeni for his patience, careful corrections, suggestions and fatherly role during this programme. My special thanks goes to Professor A. S. Omoye, the Head of Department (HOD) of Accounting, Professor J. O. Odia, the M.Sc. programme coordinator, other Professors, teaching and non teaching staff of the department for their unalloyed support during this programme.

I also extend my appreciation to the Management of the University of Benin for their support especially in taking care of tuition fees as well as the opportunity granted me to embark on the program.

My appreciation also goes to my amiable wife Mrs. Blessing Iyesogie Osazevbaru for her care, support and understanding during this programme. I also appreciate my parents and my siblings for their support.

I also appreciate others that have contributed in one way or the other to the success of this thesis. May God Almighty continue to bless every one of you in Jesus name, Amen.

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## ABSTRACT

The study investigates the nature of relationship between accounting information and deposit money bank lending decision in Nigeria.

Expost facto research design was adopted and secondary data were sourced from the annual reports of the fourteen (14) deposit money banks and all the thirteen (13) industrial goods companies listed on the Nigerian Stock Exchange as at 31<sup>st</sup> December, 2018. Ordinary Least Square regression (OLS) and T-statistic techniques were used to analyse the data of the study.

The results from the findings of the analyses showed that cash availability was found to exert a positive and significant relationship with deposit money bank lending decision. Borrowing firms' characteristics was found to exert a negative but significant relationship with deposit money bank lending decision. Also from the finding, Statement of financial position was found to rank first among the three popularly used financial statements; followed by statement of cash flow which comes second in the ranking and finally, income statement which is the least ranked among the financial statement.. Based on these findings, this study recommends that cash availability is an element that should not be undermined by deposit money banks. Therefore there should be a constant check on the minimum reserve that is kept in the bank. Also, borrowing firm characteristics should not be solely relied on as a major determinant of deposit money bank lending decision. Finally, deposit money banks should make statement of financial position and statement of cash flow mandatory as part of the requirements from loan applicants. On the other hand, income statement should not be solely depended upon when making lending decision and as such should not be mandatory as part of the requirements from borrowing firm in lending decision.

# CHAPTER 1

## INTRODUCTION

### 1.1 Background to the Study

The quest to have and maintain competitive edge over competitors by business entities in recent times has called for effective use of resources of which the banking sector is not an exception. Deposit money banks assist in the economic development of a country by fostering business transaction through its financial intermediary roles of channelling funds from excess economic units to economic units with a shortage (Obara & Eyo, 2004). These funds are liabilities to the bank because they are majorly owned by customers who deposit their monies with the bank. It is therefore pertinent and proper for the bank to efficiently manage the funds entrusted to it by taking diligent decisions about the funds so as to uphold the confidence of the owners of the funds in the banking system. The going concern of the banks is guaranteed and there is a reduction in banks failure when the banks uphold the confidence of the depositors of the fund (Ojo, 1999).

Deposit money banks are financial institutions saddled with the responsibilities of rendering financial services, contributing to the development of the economy via acting as an agent of funds channel for the economic purpose by mobilising funds to deficit sector of the economy

Deposit money banks provide an opportunity for business entities that need to expand their operations to access funds through the provision of loans. This provision of loan is by way of lending. For these funds to be accessed by the interested business entities and individuals (borrowers), there are carefully thought out procedure to be followed by the banks, which is known as lending decision. Lending is the extension of credit to worthy borrowers while decision is the choice made from varying alternatives (Nkama, 2011). Lending decision of deposit money bank is influenced by several factors, such as the level of profitability,

liquidity, solvency, efficiency as well as cash generation (Chris, 2016). Similarly IAS 7 buttressed that cash flow information is contained in the entity's statement of cash flow and signifies that the ability of the entity to generate cash is addressed by the cash flow statement. This implies that the bank must possess the ability to give a loan while the borrower must have the ability to pay back the loan if advanced. The factors highlighted above are informed by accounting information gleaned from the entity's financial report (Angori, Aristei & Gallo, 2019).

Accounting information is the processed data about a business entity's monetary transactions. This accounting information can be useful to ascertain whether such entity has the capability and the prospect in managing cash. Accounting information provides the condition for evaluating the performance of an entity (Obara & Eyo, 2004). This presupposes that in assessing the ability of the borrowing firm to generate and manage cash (ability to pay back the loan if granted), accounting information can be seen as a veritable tool. Similarly, accounting information as contained in the financial statement of an entity plays a very important role in assessing the value of such an entity (Emeni, 2014). He added that financial statements provide data which when processed, serve as useful information to the management and other stakeholders in making decisions. Thus, the importance of accounting information cannot be overemphasised in the loan decision Kim (2009).

Moreover, there is a need for a firm to share both quantitative and qualitative information which could aid in the acquisition of adequate knowledge for the management of bank-business relationship risk (Neef, 2005). Neef (2005) documented that a vital aspect in the risk management is to comprehend how the information contained in the financial report of the borrowing firm, can assist the bank in making decisions about the rating of the riskiness of the borrowing firm concerning lending.

It suffices us to briefly consider the regulatory and political environment of deposit money banks. This is because the effective discharge of their intermediary roles is largely affected by the provision of conducive atmosphere by the government. The intermediation role of deposit

money banks can only be possible if the government provide the right atmosphere ranging from the regulatory to supervisory atmosphere (Garba, Akwe, & Dang, 2018). To this end, some regulatory frameworks of deposit money bank are the Central Bank of Nigeria (CBN) saddled with the responsibility among others to regulate the activities of banks in general and the activities of deposit money banks in particular across Nigeria. The CBN issued the code of corporate governance for banks and discount houses in 2014, which is a component of the Nigeria code of corporate governance first issued in 2003 later revised in 2011 before it was again revised in 2018. Others are Banks and other Financial Institutions Act (BOFIA) of 2007, Security and Exchange Commission Act of 1992, Money Laundering Act of 2001 among others.

For instance, it is stated clearly in the Code of corporate governance for banks and discount houses that compliance is mandatory which includes lending decision among other things for banks and discount houses and any failure to comply adequately with the provision would attract a consequence in accordance with section 60 of Banks and other Financial Institutions Act (BOFIA) of 2007 as amended which is conviction to imprisonment for a term not less than two (2) years and not exceeding three (3) years or a fine of five thousand naira (₦5,000) for each day for the occurrence of such failure.

Following from the above, we can presume that lending decisions, by deposit money banks, exists in a number of accounting information variables (cash availability, bank size, and profit level) of the lending banks.

## **1.2 Statement of the Research Problem**

There have been the plethora and diverse risks associated with lending, which culminate in a situation of a possible loan default (Nkama, 2011; Yeboah & Oduro, 2018). Thus, deposit money banks encounters some challenges in the lending process, such as loan default, among others. Therefore, efficient measures must be put in place to checkmate loan defaulters. Moreover, in the recent past, some bank lending officials lamented the alarming rate of loans

default (Nkama, 2011). For instance the defunct Intercontinental bank, Oceanic bank recently Skye bank are victims of loan defaulters. The question that comes to mind at this point is, can accounting information ameliorate the likelihood of loan repayment default in the lending process of these banks?

There have been criticisms on the reduction in the relevance of accounting information to its users, and this has escalated a number of studies aiming at improving the accounting information (Francis & Schipper, 1999; Karilarinen, 2014). This implies that accounting information presented by the borrower may mislead the bank in making a lending decision. For instance profit, which is popularly used to know the current financial performance of a firm, could be manipulated due to creative accounting. Supporting this view, Hail (2013) documented that the entire relevance of statement of financial position has remained stable while the income statement has lost its relevance.

There have been few studies on the information needs of the lenders (Billins & Morton, 2002; Allen & Cote, 2005; Emeni, 2014; Karilainen, 2014; Eferakeya, 2018). Breyer, Cohen, Lys, and Walther (2010) remarked that accounting information is important with respect to lenders and investors because it aids both the investors and lenders to have estimates about the expected returns on their investment and also helps the parties to evaluate the uses of capital (loan) after committing it. Nowadays, the clamour for faithful representation of the information contained in the financial statement heightens the need to get more understanding on the use of accounting information by the lenders (Karilarinen, 2014). Karilainen (2014) further posit that, the changes in the shape of business and credit, is not influenced by accounting information, but rather family and friendship ties. However, his submission is not in tandem with findings by Yap (1997), who documented that financial statements is very crucial in lending decisions. This implies that financial statement were often utilised in relation to other source of information when evaluating the value or worth of borrowers. From the foregoing, in extant literature, there is no consensus as to the relationship between the accounting information and

deposit money banks' lending decisions. The point is, the results are mixed which makes the issue inconclusive.

Interestingly, most previous studies (Jones, Romano, & Smyrnois, 1995; Catanach, 2000; Billings & Morton, 2002; Atwood, 2009; Emeni, 2014) have dealt with the accounting information concept but most of them have dealt with only one aspect of accounting information (accounting information provided by the borrower) in relation to deposit money banks' lending decisions. They failed to consider the accounting information pertaining to the lender (the deposit money banks). In this study, both aspects of accounting information (accounting information pertaining to the borrower and the lender) in relation to deposit money banks' lending decisions were covered.

Since there are several accounting information (e.g. cash availability, borrowing firms' characteristics, value of collateral, duration of the loan) affecting lending decisions of deposit money banks, it is expected to cover most if not all of them. However, due to paucity of extant literature and data on the relationship between most accounting information and lending decisions of deposit money banks, the study will cover some of the accounting information (cash availability in deposit money banks and borrowing firms' characteristics) vis-à-vis deposit money banks' lending decisions. This therefore generates the question: what is the relationship between accounting information (cash availability, firms' characteristics) and deposit money banks' lending decisions.

According to Eferakeya (2018), in studying the relationship between accounting information and lending decisions of deposit money banks, one cannot do it in isolation of the 'Rank Order' of use of the financial statements in which the accounting information is reported. It is expected that all the three financial statements are used in the lending decision and one will be more influencing than the others as prior studies documented mixed findings on the rank order with regard to their usefulness to the creditors (lenders) of the three financial statements popularly used. It was documented that income statement ranks first among the

three popularly used financial statement followed by the statement of financial position and lastly, the statement of cash flow (Yap, 1997; Karilainen, 2014; Eferakaya, 2018). While Hail (2013) reported that statement of financial position ranks first among the three statements. On the other hand Jones et al. (1995), Catanach (2000), Billings and Morton (2002) and Minnis (2011), documented that statement of cash flow was found to rank first as it is more frequently used and important than the others. Drawing from these conflicting views, hence the need to know the most influencing financial statement in lending decision is encouraged by investigating the relationship between accounting information and deposit money bank lending decision.

Added to the above motivation for this study, to the best of our knowledge, most of the empirical studies on accounting information and deposit money bank lending decision in developed countries (Yap, 1997; Minnis, 2011; Mohanty, 2011; Karilainen, 2014; Minh, 2015; Liberti, Sturgis, & Sutherland, 2017; Trpeskaa, Atanasovskia, & Lazarevskaa, 2017; Ruggeri, Leotta, & Rizza, 2018; Suroso, Siahaan, Purba, & Rusiadi, 2018) and developing economies (Okpara, 2008; Olokoyo, 2011; Ladime, Sarpong-Kumankoma, & Osei, 2013; Emeni, 2014; Ironkewe & Otti, 2016; Musyoka, 2016; Theogene, Mulegi, & Hosee, 2017; Eferakeya, 2018), did not examine in a single study both the relationship between the variables and rank order of the three most popularly used financial statements. This study therefore sets out to fill this gap by investigating the nature of relationship between accounting information (cash availability, borrowing firms' characteristics) and deposit money banks' lending decision, while taking into cognisance 'Rank Order' of use of the financial statements in which the accounting information is reported.

### **1.3 Research Questions**

Against the backdrop of the research problem, the study is designed to answer the following questions.

1. What is the relationship between cash availability and lending decision by deposit money banks?
2. What is the relationship between borrowing firms' characteristics and lending decision by deposit money banks?
3. Which of the financial statements is the most important comparable to others that influences lending decisions of deposit money banks?

#### **1.4 Objectives of the Study**

Based on the research questions, the main objective of this study is to find out the relationship between accounting information and lending decisions of deposit money banks in Nigeria. However, the specific objectives of the study are to:

1. find out if there is a significant relationship between cash availability and lending decision by deposit money banks;
2. examine if there is a significant relationship between borrowing firms' characteristics and lending decision by deposit money banks; and
3. ascertain which of the financial statements is the most important comparable to others that influences lending decisions of deposit money banks.

#### **1.5 Research Hypotheses**

In the light of the research questions, the following research hypotheses are formulated and stated in null form to guide the study.

1. There is no significant relationship between cash availability and lending decision by deposit money banks.
2. There is no significant relationship between borrowing firms' characteristics and lending decision by deposit money banks.
3. None of the financial statements is the most important comparable to others that influences lending decisions of deposit money banks.

## **1.6 Scope of the study**

The scope of this study is specified in terms of boundaries of the subject matter, sample size, time period covered and geographical location. The study examines the relationship between accounting information and lending decision by deposit money banks in Nigeria. This study is restricted to all the deposit money banks and industrial goods companies listed on the Nigerian Stock Exchange (NSE) as at 31st December 2018. This study covers a period of five years ranging from 2014 to 2018. The justification for this period is that it was in 2014 the revised code of corporate governance for banks and discount house with guidelines for whistle-blowing in Nigeria banking industry was issued.

## **1.7 Significance of the study**

The significance of this study is meant to address the beneficiary of the study. More specifically, this study will be relevant to the following groups:

1. Academics and Researchers: this study will provide theoretical and empirical value for academics and researchers as there is potential to guide for future researches. It will also encourage new researchers in the area of accounting information and deposit money bank lending.
2. Lenders: the primary goal of the lender to avoid bad loan and maximise profit. This study will provide the lender the information needed that will enhance their lending decision
3. Regulators: financial statements are important to the regulators such as The Nigerian Stock Exchange (NSE) the Central Bank of Nigeria (CBN) as it guides them on the type of policy to initiate as well as ensuring that investors and other stakeholders have access to adequate information.

4. Analysts: this study will be of great benefit to analysts in providing a better and adequate assessment of the firms' financial result. It also aids the analysts to make an unbiased economic forecast.

## **1.8 Definition of Terms**

Some of the terms used in this study are operationally defined for the purpose of easy understanding of this research report. These include:

1. Accounting information: in this study, accounting information refers to financial accounting information. This is taken as processed data about business entity financial transactions as contained in its annual report.
2. Cash availability: in this study, cash availability entails the inflow and outflow of cash in the operation of business which is readily available to meet financial obligation. It also refers to cash available in the lenders vault that can be given out as loans
3. Borrowing firms' characteristics: in this study borrowing firms' characteristics is the overall attributes of a borrowing firm, particularly its financial standing in the assessment of credit worthiness by the lender, which is gleaned from the firm' financial statements.
4. Lending decisions: in this study, lending decision is the choice made in the extension of credit to worthy borrower.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter discusses deposit money banks' lending decision, accounting information, and provides a review of related literature on the dependent variable (lending decision) and the explanatory variables of cash availability, borrowing firms' characteristics, and rank order of use of financial statements as it relates to lending decisions. It also presents the theories underpinning the study.

#### **2.2 Conceptual Framework**

The concepts covered in this study include lending decision, cash availability, borrowing firms' characteristics and financial statements order.

##### **2.2.1 Deposit money banks' Lending Decision**

Deposit money bank is an indispensable financial institution, rendering financial services, contributing to the development of the economy via acting as an agent of funds channel for the economic purpose by mobilising funds to deficit sector of the economy (Obara & Eyo, 2004). Deposit money banks accept deposit from their customers; grant loan and advances to their customers, and the customers can make withdrawal on their deposits. Lending decision, on the other hand, is a conclusion reached concerning granting of loans and advances after considering some conditions. One way to evaluate the objective of deposit money banks is consistent profit-making. According to Freixas and Jorge (2008), bank lending is considered as one of the most essential sources of long term financing for deposit money bank in many economies.

In Nigeria, deposit money banks operations are regulated by the Apex bank (Central Bank of Nigeria) and supervised by the Nigeria Deposit Insurance Corporation (NDIC). The

regulation of the financial sector have greatly and significantly improved deposit money banks operations, as well as their lending decisions, for instance, the introduction of code of corporate governance for banks and discount houses as contained in Nigeria code of corporate governance could be seen as a propelling policy. Thus, the banking sector is relevant to the Nigeria economy, and as such, it should subject itself to constant reforms to enable it to function effectively. However, some of these reforms are brought about by legislation or laws such as Bank and other Financial Institution Act (BOFIA) 2007 as amended and the Central Bank of Nigeria (CBN) Act 2007 among others. The BOFIA and CBN Acts are regarded as the foremost laws governing the regulations of banks in Nigeria. These laws empower the CBN to supervise and regulate the activities of deposit money banks and other financial institution in Nigeria. For instance, according to a report by Global Legal Insight (2019), in 2004 the (CBN) orchestrated a reform that resulted in the consolidation of banks by raising their capital base from two (2) billion naira to twenty-five (25) billion naira, though this was purely CBN Directives and regulatory power. While in 2005 the number of banks was reduced from eighty-nine (89) to twenty-five (25). This consolidation reform brought about the retention of reasonable asset value as well as the directive to deposit money banks of sixty (60%) loan to deposit ratio. And this, in turn, has upheld the public confidence in the banking sector. More recently, the CBN has mandated banks in Nigeria to report performing and non-performing loans as well as proposed a minimum capital base of one hundred (100) billion naira for banks operating in the country (Global Legal Insight, 2019). Another important aspect of the CBN reforms is the introduction of code of corporate governance for banks and discount houses (2014), which categorically empowers the board of directors of the banks and their management to be accountable and take responsibility for performance and other matters of the bank including lending decisions in accordance with the provision of Company and Allied Matters (CAMA) Act 2004.

Deposit money banks are instrumental to economic growth and development via their lending activities in ensuring there is economic activity. However, one of the criteria to

consider in a lending decision is the ability of the borrower to pay (Fleisig, 1995). This ability to pay may be evaluated using the cash flow statement of the borrower or the borrowing firm. Consequently, the ratios of cash flows according to Chris (2016) are profitability, liquidity, solvency, efficiency and cash generation ratios. He added that in making lending decision there is a need to evaluate the borrower's ability to manage cash when it is certain that the bank has the ability to give the loan. He highlighted three sources of loan repayment which are: cash from operation; cash from the liquidation of collateral and cash from guarantor's operation. According to Chris (2016), the ratios for lending decision are profitability, liquidity, solvency, efficiency and cash generation ratios. This buttresses the fact that lending decision should be diligently designed in such a way that would be beneficial to all the stakeholders of the bank (lenders, borrowers, public and so on) because deposit money bank plays an essential role in the growth and development of the economy.

Eke, Eke, and Iyang (2015) see deposit money banks as financial intermediaries that mobilise funds from the segment of the economy where there is surplus and supply it to other segments of the economy that have a shortfall. Deposit money banks in any country play significant roles in stabilising the economy of a country with the use of monetary policies like interest rate, special deposits and so on. That is why they are often referred to as "lubricant" of the economy (Eke et al., 2015). Thus, the roles of deposit money banks cannot be overemphasized as they are not only playing the role of financial intermediaries but also stabilise the economy, protect depositors' funds, maintain public confidence as well as guide against systematic risk and large-scale failure in the sector (Eke et al., 2015; Olaifa & Ajagbe, 2015).

Therefore, before a deposit money bank gives a loan, a legal contract between the lender and the borrower is entered (Mohanty, 2011). He added that a bank's credit department would analyse the borrowing firm or the borrower's capacity critically using the lending rate system. He called it the 5C's of creditworthiness of the borrower. They are; character, capacity, capital, collateral and conditions. The character consists of the features of the borrowers such

as age, industry type and reputation. The capacity includes the volume of operations of the borrowers. The capital, here they look at the borrower's source of capital, and the capital structure or mix, whether they are solely equity financed or solely financed through debt or both. Collateral is very important in the lending systems of deposit money bank, so as to aid in mitigating the risk associated with loan (Emeni, 2014). And finally, it could also help in timely fulfilment of the conditions attached to it such as interest rate, payback period and medium of loan repayments.

In the same vein Crouhy, Galai, and Mark (2001) argued that different attributes are considered in bank lending decision, such as the ascertainment of the financial health of the borrower and relying on the judgment of the rating assessors. They added that in ascertaining the financial health of the borrower, the bank officials would examine if earnings and cash flows of the borrower are sufficient to cover the loan. In a similar vein Chris (2016) noted that in taking a lending decision, the ability of the borrower to manage and generate cash is germane. And added that cash could be obtained from any or all of the following three sources: cash from operation; cash from the liquidation of collateral pledged; or/and cash from guarantor's collateral.

Similar to Mohanty's (2011) 5C's of creditworthiness of borrowers, Olokoyo (2011) highlighted the determinants of banks' lending behaviour in Nigeria as the volume of deposit, investment portfolio, interest rate or lending rate, stipulated cash reserve requirements ratio and liquidity ratio. Eke et al. (2015) attributed the determinants of deposit money banks' lending decisions to some macroeconomic factors such as monetary policy rate, interest rate spread, statutory liquidity ratio, and exchange rate and inflation rate. Ghulam and Iyofor (2017) noted that firm characteristics affect deposit money banks' lending decisions; however, owner characteristics do not influence the lending decisions of deposit money banks. In a similar vein Eneje, Obidike, and Chukwujekwu (2016) pointed out that International Financial Reporting Standards (IFRS) adoption of borrowing firms in Nigeria has significantly affected deposit

money banks lending decisions. They noted that the mechanics of loan loss provisioning in Post IFRS era differs significantly from that of Pre IFRS era.

Emeni (2014) believed that volume of the loans is the major factor that determines the lending decisions of deposit money banks, and noted that the benefits of this criterion outweigh the challenges that other factors bring. Ironkewe and Otti (2016) further asserted that if deposit money banks could improve on the information determinants of bank lending, both the borrowing firm and the deposit money banks would be better off.

Prior studies have used different proxies to measure lending decision of deposit money banks. Some used accounting information proxies such as volume of loan, loan and advances, total value of banks loans in the financial statement (Lear & pannepacker, 2004; Emeni, 2014), volume of deposit (Olokoyo, 2011), monetary policy rate (Eke et al, 2015), loan loss provisioning (Eneje et al., 2016), loan growth and future charge off (Bushman, Hendricks, & Williams, 2013), external finance, credit demand and credit rationing (Angori et al., 2019), hard and soft information (Grunent & Norden, 2011), propensity ratio (Mkhaiber & Werner, 2015). This study uses loan advanced to borrower computed from the deposit money banks financial statements to measure deposit money bank lending decisions, because the ability to give loan is expressed by how liquid the entity concerned is.

### **2.2.2 Accounting Information**

The phrase “accounting information” is a blend of two concepts: accounting and information. The former is the process of recording, analysing, classifying, summarising financial transactions, while the latter simply means the knowledge communicated or received concerning a particular fact or circumstance. Ironkewe and Otti (2016) see accounting information as the ingredient needed in most managerial decisions. They further defined accounting information as the practice of accounting that is concerned with the design, dissemination as well as monitoring of information systems. In a similar vein Eferakeya, (2018) expressed that financial accounting information is very valuable to banks especially when it

involves lender and borrower in carrying out lending. While Kim (2009) noted that banks require updated accounting information in form of financial statement to manage lending relationship with the borrower. Emeni (2014) defined accounting information as knowledge communicated and received concerning a particular financial transaction. Both definitions accurately gave a clear meaning of accounting information.

However, researchers have noted that information on the financial statement is not considered important when making decisions (Dang, Marriott, & Marriott, 2008). Mirshekary and Saudagaran (2005) asserted that accounting information is commonly associated with issues such as time lags (in the form of delays), reliability issues, and incomplete records. However, financial statements still form the basis of information needed for decision making. The criteria for assessing the usefulness of accounting information as recommended by International Accounting Standard Board (IASB) are relevance, faithful representation, comparability, verifiability, timeliness and understandability (Minh, 2015; Aifuwa, Embele, & Saidu, 2018). These criteria will be helpful to deposit money banks in evaluating the usefulness of financial statement, before taking or making any lending decision.

The quality of accounting information seems to be a good yardstick that deposit money banks can use in its lending decisions. Ironkewe and Otti (2016) advised that only accurate, reliable and relevant accounting information will help deposit money banks in making the best lending decisions. However, Aifuwa and Embele (2019) noted that accounting figure in the financial statements is not 100% reliable, because there might have been some manipulations by the board and preparers of the financial statement. Aifuwa et al. (2018) further stated that the cause of the unreliability of financial statement by organisations was due to low ethical accounting practices and compliance among business in Nigeria. However, Chris (2016) observed that the manipulations are prevalent in the statement of comprehensive income and statement of financial position, and this makes the statement of cash flows most reliable. Prior researchers used divers proxies to measure accounting information such as the monetary value of collateral, profit level, cash availability/ liquidity (Emeni, 2014), Financial ratios (Theogene

et al., 2017). However, this study proxies accounting information using cash availability of the lender and borrowing firm characteristics, while taking into consideration the rank order of use of financial statement in which accounting are reported.

### **2.2.3 Cash Availability**

This concept theoretically flows with the demand and supply mechanism. If deposit money banks do not have enough funds to give out as loan, this would sure affect their lending decisions negatively. Likewise for the borrower, if they are illiquid, that is they cannot easily convert assets to cash when needed, the deposit money banks will not lend funds to such borrower. Emeni (2014) recounted that cash considered in lending decisions making process covers the money that goes in and out of the business firm operations. He added that any cash flow from investment or financial activities are considered as cash.

Elosiuba and Okoye (2018) established the fact that recent accounting policies, standards and liquidity of the borrower affects the availability of cash in deposit money banks which incidentally influence loans as well as the quality of financial information. The opinion was supported by (Eneje, et al., 2016) that IFRS adoption in Nigeria has improved the reporting quality of information of banks specifically. Cash with respect to lending refers to the money that goes in and out of the business from its operations (Emeni, 2014). It can also means cash flow from investment and financing activities. Okpara (2008) saw cash as a reflection of lender capacity to give a loan. Similarly, Atwood (2009) noted that lenders make use of the cash flow statement to ascertain the likelihood of effective loan repayment. Also, Lear and Pannepacker (2004) observed that the main reason why there is cash consideration in lending process is for the determination of whether cash receipts by the borrower can be sufficient for the repayment of the loan advanced to her. In a similar vein, Rioux (2013), noted that cash could be used as a criterion of how conservative a lender is, because a conservative lender must first consider the cash flow of the business in relation to loan repayment. According to Atwood (2009), payment history on existing credit relationship (part of which can be obtained from the

cash flow statement of the entity) could be used to assess future payment performance and bank lending. Emeni (2014) added that cash information enables for significant changes in the business entity over time. This implies that cash play critical role in the ascertainment of the financial strength of the borrower because every lender's desire is to get its loan pay back to her after lending has occurred.

#### **2.2.4 Borrowing Firm's Characteristics**

Borrowing firm's characteristics is the overall attributes of a borrowing firm, particularly its financial standing in the assessment of credit worthiness by the lender. It is quit necessary to understand that the goal of every lender, which is to recover any loan advanced to the borrower at the expiration of the loan contract (Lear & pannepacker, 2004). It will interest you to know that the financial statement of the borrower will be of interest to the lender (deposit money bank) to ascertain the financial standing and overall worth of the borrower whether it is capable of repayment (Emeni, 2014).

According to Igde, Ubud, Djumahir, and Atim (2017), banks produced borrowing firm characteristics through loan officers by assisting in exploring information needed about the borrower. They added that borrowing firm characteristics could be viewed from both qualitative and quantitative perspective. The qualitative characteristics entail personal character, social character, management capability, cultural character, environmental characteristics as well as business and marketing characteristics (Udell, 2007). He added that the quantitative aspect of borrowing firm characteristics encompasses the information in the borrowing firm financial statement and information gathered that are directly related to financial condition of the borrowing firm such collateral, condition of assets, equity profitability.

It was observed that there are inconsistencies findings on whether the qualitative aspect of borrowing firm characteristics affects lending decision. However, researchers such as Beaulieu (1996), Soares, Pina, Ribeiro, and Lopes (2011), Bartoli, Ferri, Murro, and Rotondi (2013) and Elsakit and Worthington (2013) documented that qualitative aspect of borrowing

firm characteristics impacts on bank lending decision. On the other hand, qualitative aspect of borrowing firm characteristics does not affect bank lending decision as reported by (Catusus & Grojer, 2003; Tornberg & Hemlin, 2013). Similarly, Soares et al. (2011) added that qualitative aspect of borrowing firm characteristics has a higher interest rate than the quantitative aspect of borrowing firm characteristics. Following this assertion, Elsakit and Worthington (2013) reported that loan officers also consider social environment in evaluating credit worthiness of the borrowing firm.

As stated earlier, both the qualitative and the quantitative aspects are contained in borrowing firm characteristics. The quantitative aspect of borrowing firm characteristics is concerned with hard information about the borrowing firm creditworthiness derivable from the entity's financial statement. Soares et al. (2011) and Bartoli et al. (2013) reported that the quantitative aspect of borrowing firm characteristics impacts on creditworthiness of the borrower, consequently, bank lending decision. Supporting this report is the study of Igde et al. (2017), who found out that financial information (quantitative characteristics) of the borrowing firm affect positively the creditworthiness of the borrower, invariably bank lending decision.

This study is focusing on the quantitative aspect because it tends to be more utilised in relation to the qualitative aspect of firm characteristics as financial records are readily available to enable decision taking. Buttressing this is Petersen (2004) who noted that with development in technology hard information will suffice in timely and ease evaluation of the borrowing firm's overall characteristic status for loan consideration. According to Yildirim, Akci, and Eksi (2013), the financial information in the financial statement of the borrower can also aid the lenders in determining the borrower possibility of loan default. Reiterating the quantitative aspect of borrowing firm characteristics, Petersen (2004) expressed that it includes hard information contained in the financial statement, collateral assets and other quantitative information obtained through a mechanism known as transactional lending technology.

Financial statements on the other hand are the financial record about the firm. Commonly used are income statements, statement of cash flow as well as statement of financial position.

Collateral has received much attention in literature as it relates to lending. Proper monetary valuation of collateral is very crucial in credit risk management role of deposit money banks. Karilainen (2014) defined collateral as an asset pledged to aid the repayment of debt, which usually includes the valuation of assets. Voordecker and Steijver (2006) asserted that the valuation of collateral is not only on the monetary aspect but also on the non-monetary aspect, such as the duration and future benefits of the collateral. Wilson (2015) added that the key challenges that start-up businesses are confronted with are lack of financial training, access to credit facilities and lack of collateral. He further noted that the quantifiable financial information requires judgment on the sufficiency of the collateral at a given situation. In a similar vein, Mkhairer and Werner (2015) noted that the valuation of collateral varies from borrowers to borrowers. They were of the view that the size of the borrowing firms plays a vital role in the valuation of collateral security. D'Aurizio, Oliviero and Romano (2015) advised that deposit money banks should do the needful in verifying collateral brought by borrowers in order not to plunge into financial crisis. Liberti et al. (2017) also advised that the type of collateral presented should be scrutinised because deposit money banks earn rent on their ability to prevent default and recover it as well.

Several measures have been put up in literature to measure borrowing firm's characteristics such as profit level (Emeni, 2014); firm size, firm age and firm performance (Ghulam & Iyofor, 2017); qualitative characteristics (personal character, social character, management capability) and quantitative characteristics (profitability, liquidity and solvency) (Igde et al., 2017).

## **2.2.5 Financial Statements**

Financial statements are formal records of the financial activities of a business entity. They are written reports that aid the users to quantify the financial strength, performance and liquidity of a business entity. Financial statements help to explain the financial effects of business transactions and events of the business entity.

According to Karilarinen (2014), the objective of financial statement is to provide information about the business entity financial performance, financial position as well as changes in the financial position which help the users to make informed economics decisions. It helps the users to know the size of the firm in form of its assets, how liquid the firm is in form of the strength of its cash flow and operational performance in form of it profits. This presupposes the importance of financial statements. Kim (2009) noted that deposit money banks demand updated financial statements to manage the borrower. Similarly, Yap (1997) documented that financial statements is very crucial in lending decision. This implies that financial statement were often utilised in relation to other source of information when evaluating the value or worth of a business entity. As stated earlier in this study, that deposit money banks provide avenue for business entities that tend expand their operation to access loan. This is because access to loan will help the business firm to achieve the objective of growth and expansion. This is made possible when there is good accounting information in the entity's financial statements presented to the lender in loan request (Eferakeya, 2018).

The three most popularly used financial statements are income statement, statement of cash flows and statement of financial position (IAS1).

Income statement or statement of financial performance or statement of profit or loss and other comprehensive income or statement of comprehensive income is the statement that enables for the determination of gross profit or loss and net profit or loss for the period. It contains elements of financial statement called income and expenses. The overall objective of

this statement is to know the profit or loss for the period (Osazevbaru, 2019). It was documented that income statement ranks first among the three popularly used financial statement followed by the statement of financial position and lastly, the statement of cash flow (Yap, 1997; Karilainen, 2014; Eferakaya, 2018).

According to IAS 7, the statement of cash flow enables the users to know cash flow information and demonstrates the entity's ability to generate cash and cash equivalents; this information is further divided into operating, financing and investing activities. Jones et al. (1995), Catanach (2000), Billings and Morton (2002) and Minnis (2011), documented that statement of cash flow was found to rank first as it is more frequently used and important than the others.

Statement of financial position is the statement that enables for the determination of the financial state of a business entity. The essence of this statement is to determine what a business entity own and what it owe at given period of time. It could also be seen as a statement revealing the state of financial position of the firm at a particular time. It contains elements of financial statement called asset, equity (capital) and liability (Osazevbaru, 2019). In a similar vein, Wolk, Dodd, and Rozycki (2013) noted that financial position gives information that enables users to evaluate the financial health of the business entity. The relevance of statement of financial position among the financial statements has received attention in the literature. Hail (2013) documented that the entire relevance of statement of financial position has remained stable while the income statement has lost its relevance. Hail (2013) reported that statement of financial position ranks first among three statements.

### **2.3 Cash Availability and Lending Decision of Deposit Money Banks**

Eljelly (2004) investigated the relationship between profitability and liquidity measures. The dependent variable was measured using net operating income while the independent variables were measured using current ratio and the cash conversion cycle. The population was 27 Saudi companies from 3 non-financial sectors from 1996 to 2000. The method of data

analysis was OLS regression technique. The findings showed that cash conversion cycle has significant association with the firm's profitability as well as bank lending decision.

Olokoyo (2011) examined the determinants of deposit money banks' lending behaviour in the Nigerian. The model estimated Nigerian deposit money banks loan advance (LOA) as the dependent variable and other determinants or variables such as their volume of deposits (Vd), their investment portfolio (Ip), interest (lending) rate (Ir), stipulated cash reserve requirements ratio (Rr) and their liquidity ratio (Lr) as independent variable for the period; 1980 – 2005. The model was analysed using Ordinary Least Squares (OLS). The data were sourced from secondary source. The findings showed among others that liquidity requirement and cash requirement ratio do not impact negatively on banks' lending behaviour. It was therefore recommended among others that deposit money banks should always ensure compliance with these policies as well as formulate critical, realistic and comprehensive strategic and financial plans.

In Nigeria, Emeni (2014) examine the impact of accounting information on banks' lending decisions. Both the cluster sampling and simple random sampling were adopted for the study and a cross-section of data of companies for the year 2012 obtained from the Nigerian Stock Exchange. The data were analysed with the use of ordinary least squares technique. The study found out that accounting information has a significant relationship with deposit money banks lending decisions.

Ayodele (2014) investigated the effect of monetary policy on deposit money bank lending in Nigeria. Secondary data were used for the study using the Error Correction Mechanism of Ordinary Least Squares regression technique. The findings indicate that there is a long-run relationship between the variables in the study. Also, the findings revealed that exchange rate and interest rate have significant influence on deposit money banks' lending, while liquidity ratio and money supply portray negative effect on deposit money banks' loan and advances.

## **2.4 Borrowing Firm's Characteristics and Lending Decision of Deposit Money Banks**

Mohanty (2011) examined the determinants of banks lending decisions in the industrial sector in India. A structured questionnaire was used as a data collection tool, and the statistical judgment sampling was employed. The population consisted of deposit money banks in the city of Mumbai, Maharashtra. The analysis was done using chi-square. The study found out that almost all the banks favour big corporation while giving the loan; with emphasis on the importance of the financial system, size of the firm and less importance on business experience. Igde et al. (2017) examined the role of borrower characteristics, relationship lending and trust on SMEs' creditworthiness. Primary data were used for the study by administering 351 questionnaire to both existing and potential borrower in PT Bank BRI in Denpasar Regional Office, Bali Province, Indonesia that form the population of the study. The data were analysed using PLS method using SmartPLS program. The findings showed that trust perfectly mediated between borrowing firm qualitative characteristics and relationship lending on creditworthiness of the borrower. On the other hand trust partially mediated between borrowing firm quantitative characteristics and relationship lending on creditworthiness of the borrower. Also, borrowing firm quantitative characteristics was found to have significant and positive relationship with creditworthiness of the borrower, borrowing firm qualitative characteristics was found not to have significant and positive relationship with creditworthiness of the borrower. The findings therefore indicated among others that good borrowing firm quantitative characteristics and relationship lending will improve creditworthiness of the borrower.

Ghulam and Iyofor (2017) empirically examined the impact of firms and owners characteristics on the availability of bank credit to SMEs in Nigeria. Secondary data was sourced from the World Bank Enterprise survey. The findings showed that SMEs with a financial statement audited are more likely to have access to loan than SMEs without audited financial statement. Also, they discovered that Medium-sized firms are more likely to have credit than small firms whilst higher performing-firms are more likely to have credit than

SMEs that have lower performance. Additionally, they found out that firms with a sole proprietor are less likely to have credit than partnerships or corporations.

## **2.5 Financial Statements Rank Order and Lending Decision of Deposit Money Banks**

Minnis (2011) investigated how verification of financial statements influences debt financing among U.S. private firms. Secondary data were sourced from Sageworks Inc. The data were analysed using panel regression techniques. The result of the findings showed that business firms with audited financial statements have a significant lower cost of debt. That is, lenders value and consider verified financial statements in lending decision. Also, audited financial statements are better predictors of future cash flows. Meaning cash flow statement of the financial statement is more influential in loan decision compare to others.

In Sweden, Karilainen (2014) examined the usefulness of financial accounting information in Commercial Lending. A survey research design was adopted in the study. Primary data in form questionnaire was the source of data for the study. The data were analysed using both descriptive and inferential statistics. The results showed that there is consistency with recent research as well as the significance of accounting information. It was also discovered that all the three main statements; statement of financial position (balance sheet), statement of comprehensive income (income statement) and cash flow statement, are seen to be complementary. Although, income statement ranks first among the three popularly used financial statement followed by the statement of financial position and lastly, the statement of cash flow

Ironkewe and Otti (2016) conducted a study on accounting information and financial performance of banks in Nigeria. A sample of 91 deposit banks was used for the study and primary data were gathered via a survey method with the aid of a structured questionnaire. The data were analysed with the use of Pearson Product Moment Correlation (PPMC) on SPSS. The findings showed that accounting information in terms of relevance was statistically significant in ascertaining the profitability and quality of service delivery of banks in Nigeria.

The study concluded that the quality of accounting information in terms of relevance to users is significant to the performance of banks.

Musyoka (2016) investigated the effect of the use of financial statement in making lending decisions has on the level of Non-Performing Loans (NPLs) among Kenyan banks. Primary data were employed in the study and the data were collected on perceptions of the importance of financial statements in lending decisions of Kenya bank officers, the characteristics of banks, use of financial statements in the banks and their levels of NPLs from a total of 37 out of the 42 deposit money banks via a structured questionnaire. Ordinary least squares regression statistical technique was employed for the data analysis. The findings showed that key bank staffs in lending decision view financial statements as not very useful in making lending decisions. It was found that the effect of the use of financial statement information in decision making was not statistically significant. However, tier 3 and tier 4 banks have significantly higher levels of NPL than tier 1 registered in Kenya.

A study in Rwanda by Theogene et al. (2017) investigated the contribution of financial ratio analysis on effective decision making in deposit money banks in Rwanda. Stratified random sampling technique was adopted in the study to achieve 104 sample size from 139 member population. The relationship between the variables was established using the regression analysis technique. The findings of the study showed that if efficiency ratio increased by one per cent (1%), the effective decision making would be increased by 0.910. Thus, efficiency ratio analysis and quality ratios analysis positively affect the effective decision making of deposit money bank.

Eferakeya (2018) examined the impact of financial accounting information on Lending decision by deposit money banks in Nigeria. A survey research design was adopted in the study. Primary data in form of questionnaire was the source of data for the study. A sample of 90 respondents which consisted of loan assessment and granting officers was judgmentally drawn from a population of fifteen (15) operating in Warri metropolis of Delta State. The data were analysed using both descriptive and inferential statistics. The findings revealed that

financial statement was the most often used than information source, such as media reports, recommendation from others and so on. The result also showed that income statement ranks first, followed by statement of financial position, lastly statement of cash flow. The study recommended that banks credit officers should continue to give greater attention to financial statements, when seeking information needful for lending purposes.

Minh (2015) did a study in Vietnam. He examined the impact of information on financial statements for loan decision-making of deposit money banks in Vietnam. The study utilised the information in the financial statement analysis process of 10 deposit money banks in Vietnam and a survey method was used to elicit responses from 74 members of credit staff. A paired-sample t-test was employed as an inferential statistic for the study. The study found out that the banks' qualitative characteristics are significant when disclosing the information on the financial statements. The study recommended among others the use of the six oriented solutions to improve loan decision-making by banks.

## **2.6 Review of Theories**

As earlier pointed out in chapter one of this study, this study extrapolates on the relationship between accounting information (cash availability, borrowing firms' characteristics) and lending decision by deposit money banks. Also, taken into consideration in this study is the rank order of use of the relevant financial statements in lending decisions. In doing this, stakeholders' theory, signalling theory and the rational choice theory which underpins this study are reviewed.

### **2.6.1 Stakeholders Theory**

This theory was propounded by Freeman (1984) and emphasised that instead of the focus to be on shareholders only, it should rather be on all the stakeholders of a business entity. This theory has heightened the focus on the importance of the relationship between a business entity and its stakeholders. This theory also entails the assumption on who has input in the

decision making process as well as who gains from the output. Thus, this emphasised the decision about the conveyance of financial information because stakeholders seek compensation for their investment.

This theory is relevant in this study in that it helps to explain the role of accounting information in lender (deposit money bank) decision making. This implies that business entity discloses information for both own and stakeholders use. In Nigeria lenders represent a substantial part of stakeholders of a business entity. It is also necessary to note that some business entity finance their business using loan rather than equity as noted by (Ewing & Bhatia 2012), which suggests how important proactive stakeholder engagement is. Conclusively, using this theory, in this study demonstrates how the desire of the stakeholders is taken into cognizance as the information needed by lender (deposit money bank) regarding accounting information is examined.

### **2.6.2 Signaling Theory**

This theory was propounded by Michael Spence in his seminal work in 1973. According to Spence (1973), signaling theory proposes a situation where the problem of information asymmetry can be solved by having one party send a signal that would reveal some important information to the other party. The sender (in this case the business entity) decides whether and how to signal the information (in this case via financial statement), and the sender (in this case the lender, the deposit money bank) decides how to interpret the information. Thus, the relevance of this theory according to Dainelli, Bini, and Giunta (2013) is that first, the signal focuses on the informational need of the parties; secondly, it explains the asymmetric information that exists between the two parties, which can be mitigated through the signal from one of the parties with more information to the other. Dainelli et al. (2013) noted that the best and reliable way of conveying this information between the parties is through annual report of the business entity. This annual report is the disclosure of information in the financial statement. Moreover, this theory describes why business entity happily report

accounting information because when they (business entities) signal satisfactory accounting information, it can reduce the cost of loan (Karilainen, 2014).

Conclusively, this theory is relevant in this study because it describes why accounting information is disclosed by these business entities and why deposit money banks which are referred to as the lenders make use of the information for lending purposes.

### **2.6.3 Rational Choice Theory**

This theory states that individual will always make conservative and logical decisions that give them the highest satisfaction. These decisions provide people with the greatest relief or utility because there are alternatives available to them. This theory is based on the assumption that individuals will be keen to maximise their utility always and thus, try to minimise their losses at the slightest opportunity. This study is using this theory to explain how deposit money banks make logical and prudent lending decisions to maximise profit and minimise losses. The decisions taken are based on the accounting information provided. The Rational Choice Theory has been criticised on the ground that individuals (deposit money banks) do not always make rational utility maximisation decisions. Also, Simon (1982) noted that people (deposit money banks) are not always able to obtain all the information they would need to make best possible decisions (lending decisions) thus, make the best out of the available resources. Having reviewed the above theories, the study is anchored on the rational choice theory.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter gives an overview of the methods, procedures, modalities and the sequential steps that will be adopted in this study to ensure that the results of the investigation are dependable, accurate and valid. It presents a description of the research design of the study, the population of the study, sources of data, model specification and data analysis method.

### **3.2 Research Design**

This study adopts ex-post-facto research design. This design is suitable for this study because it seeks to analyse already existing events where the data cannot be manipulated.

### **3.3 Population of the Study**

The population for this study consists of all the deposit money banks and all the industrial goods companies in Nigeria.

### **3.4 Sample and Sampling Techniques**

The sample takes a census of all the fourteen (14) deposit money banks and all the thirteen (13) industrial goods companies listed in the Nigerian Stock Exchange (NSE) as at 31st December; 2018, using a purposive sampling technique. The justification for studying these sectors is that deposit money banks make lending decisions while the industrial goods companies represent the borrowing firm. The choice for the industrial goods companies is to make the number almost equal with the deposit money banks as it happened to be the closest number to that of the deposit money banks of the companies listed in the NSE.

### **3.5 Source of data**

Secondary data were used in this study. The data were drawn from the annual reports and accounts of banks and industrial goods companies quoted on the floor of the Nigerian Stock Exchange, from 2014 to 2018. The justification for using secondary data is because of its reliability and availability.

### **3.6 Model Specification**

This study adapted the model of Emeni (2014) in explaining the relationship between accounting information and deposit money banks' lending decisions. The model is stated below;

In functional form

$$BLD = f(COL, CAS, FCR) \dots\dots\dots(1)$$

In econometric form:

$$BLD_i = \beta_0 + \beta_1 COL_i + \beta_2 CAS_i + \beta_3 FCR_i + \varepsilon_i \dots \dots \dots (2)$$

Where;

BLD= Deposit money banks' Lending Decision;

COL = Collateral

CAS = Cash and Cash Equivalent;

FCR = Firm's Characteristic

A priori expectations in extant literature was  $\beta_1, \beta_2, >0$ ;  $\beta_3, < 0$

Based on the above, the model for this study is presented below:

In functional form:

$$DMBLD = f( CAV, BFC, FST) \dots \dots \dots (3)$$

In econometric form:

$$DMBLD_{it} = \beta_0 + \beta_1 CAV_{it} + \beta_2 SIZ_{it} + \beta_3 AGE_{it} + U_{it} \dots \dots \dots (4)$$

$$DMBLD_{it} = \beta_0 + \beta_1 BFC_{it} + \beta_2 FST_{it} + \beta_3 SIZ_{it} + \beta_4 AGE_{it} + U_{it} \dots \dots \dots (5)$$

Where:

DMBLD = Deposit money bank lending decision

CAV = Cash Availability

BFC = Borrowing Firm Characteristics

FST = Financial statements

SIZ = Companies size

AGE = Companies age

$\beta_0$  = Parameters to be estimated (is the average amount the dependent

variable increases when the independent increases by one unit, other independent variables held constant).

$u_{it}$  = Error term assumed to satisfy the standard ordinary least squares (OLS) assumption.

$\beta_1 - \beta_4$  = Partial derivatives or the gradient of the independent and control variables.

$i$  = the company (bank)

$t$  = time factor

A-priori expectations:  $\beta_1 > 0$ ,  $\beta_2 > 0$ ,  $\beta_3 > 0$ ,  $\beta_4 > 0$ ,

### 3.7 Operationalisation of Variables

*Table 3.1 Measures of variables*

S/N	Variable name	Symbol used	Type of variable	Measurement	Source
1	Deposit Money Bank Lending Decision	DMBLD	Dependent	Loan advanced	Emeni (2014), Olokoyo, (2011)
2	Cash Availability	CAV	Independent	Value of cash and cash equivalent in the bank financial statement	Emeni (2014).
3	Borrowing Firm Characteristics	BFC	Independent	Value of cash and cash equivalent in the borrowing firm's financial statement	Emeni (2014).
4	Financial Statements	FST	Independent	Income statement (profit after tax), statement of cash flows (cash and cash equivalent), statement of financial position (non-current assets)	Karilainen, 2014; Eferakeya, 2018
5	Companies Size	SIZ	Control	The natural logarithm of bank asset	AlQudah, Azzam, Aleqab, and Shakhatre (2019)
6	companies Age	AGE	Control	The natural logarithm of years of the bank's existence since its year of incorporation	AlQudah et al. (2019)

Source: Researchers Compilation (2020)

### 3.7 Method of Data Analysis

Both statistical and econometric analyses were used to achieve the set objectives and test the hypotheses for the study. The statistical analyses consisted of descriptive analysis and correlation analysis. The econometric techniques that were used to analyse the data for this study are the Ordinary Least Square (OLS) regression technique and T-statistic because the study looks at relationship and rank order of variables.

However, some diagnostic tests were carried out, such as Histogram which was used to test for normality; Jacque-Bera was used to test for skewness & kurtosis; Breusch Pagan-Godfrey was used to test for Heteroskedasticity; and Breusch Godfrey was used to test for

Serial-Correlation. The above diagnostic tests were carried out to fulfill the basic assumption of regression.

## **CHAPTER FOUR**

### **DATA PRESENTATION AND ANALYSIS**

#### **4.1 Introduction.**

This study was carried out to examine the relationship between accounting information and deposit money banks lending decision in Nigeria. This section therefore covers data presentation and analysis into account the various steps and procedures that were employed to arrive at the conclusion and recommendation of the study. This section specifically covers descriptive statistics, correlational analysis, regression results diagnostic test.

#### 4.2 Descriptive Statistics for Borrowing Firm

Table 4.1: Descriptive Statistics for borrowing firm

	DMBLD	BFC	SIZ	AGE
Mean	6.375228	5.346862	6.480239	44.76087
Median	6.655329	5.259690	6.274115	42.50000
Maximum	8.378398	7.214936	8.654834	78.00000
Minimum	2.766041	3.040998	5.460871	13.00000
Std. Dev.	1.455936	1.090869	0.717398	16.27566
Skewness	-0.507790	-0.124401	1.551132	0.364660
Kurtosis	2.489701	2.207561	4.788931	2.384089
Jarque-Bera	2.475968	1.322235	24.57995	1.746572
Probability	0.289968	0.516274	0.000005	0.417577

Source: Researchers Compilation (2020)

The descriptive statistics in Table 4.1 shows the measures of central tendency, measures of dispersion and measures of normality. From the result it was observed that the mean value of deposit money bank lending decision stood at a value of 6.37. The standard deviation measuring the spread of the distribution stood at 1.455. The Jarque-Bera statistics measuring the normality of the distribution stood at 2.47 with an associated probability value of 0.28. Borrowing firm characteristics (BFC) was found to have a mean value 5.34 with a standard deviation of 1.09 which is an indicator of the extent of dispersion from the mean. The mean for size stood at a value of 6.48 with a standard deviation of 0.717. The mean value of

age stood at 44.76, the standard deviation measuring the spread of the distribution stood at 16.27. With respect to the overall Jacque-Bera statistics for all the variables except BFC was normally distributed at 5% level of significance.

### 4.3 Correlation Result for Borrowing Firm

Table 4.2: Correlation result for borrowing firm

		DMBLD	BFC	SIZ	AGE
DMBLD	Pearson correlation	1.000000			
	Sig (2 tailed)	-----			
	N	54			
BFC	Pearson correlation	0.030260	1.000000		
	Sig (2 tailed)	0.8280	-----		
	N	54	54		
SIZ	Pearson correlation	-0.377390	-0.194486	1.000000	
	Sig (2 tailed)	0.0049	0.1588	-----	
	N	54	54	54	
AGE	Pearson correlation	-0.492276	0.131487	0.148241	1.000000
	Sig (2 tailed)	0.0002	0.3433	0.2847	-----
	N	54	54	54	54

Source : Researchers Compilation (2020)

From result in Table 4.2, it is observed that BFC was positively correlated with deposit money bank ( $r=0.030260$ ) which indicates that BFC might actually be a determinant of lending by a lending firm. Size was found to have a negative relationship with deposit money bank lending decision as revealed by the coefficient value of  $(-0.377390)$ . It was found to be statistically significant at 5% level of significance. Age was found to have a negative relationship with deposit money bank lending decision as revealed by the coefficient value of  $(-0.492276)$ . Though the correlations are quite weak on the average. The inter-correlation coefficients between the independent variables are also quite relatively low and are not indicative of any problem of multicollinearity. However, the Variance Inflation Factor (VIF) was still used to test of multicollinearity among the explanatory variables and presented in Table 4.3 below.

### 4.4 Regression Diagnostic Test: Variance Inflation Factor for Borrowing Firm

Table 4.3: Variance inflation factor for borrowing firm

Variable	Coefficient Variance	VIF
C	29.33219	NA
BFC	3.01E-16	1.531721
SIZ	2.51E-18	1.948033
AGE	0.000427	1.348271

Researcher's Computation (2020) Using Eviews Software 8.0

The results of the variance inflation factor reported relatively small values. This is because, it is within the threshold value (benchmark) set-out for the variance inflation which is 10 points. This is a further confirmation of the absence of the problem of multicollinearity among the regression variables. BFC was found to have a VIF value of 1.53. Size reported a centered VIF value of 1.94. Age reported a centered VIF value of 1.34.

#### 4.5 Regression Diagnostic Test: Breusch-Godfrey LM & Breusch Pagan Godfrey Test for Borrowing Firm

Table 4.4: Regression diagnostic test: Breusch-Godfery LM & Breusch Pagan Godfrey test for borrowing firm

<b><i>B-G LM test for serial Correlation</i></b>	
<i>F-statistic</i>	2.531148
<i>Obs*R-squared</i>	0.0919
<i>Prob. Chi-Square</i>	5.275252
	0.0715
<b><i>Heteroskedasticity Test: White</i></b>	
<i>F-statistic</i>	0.557795
<i>Prob (f)</i>	0.6457

**Source:** Researchers compilation (2020)

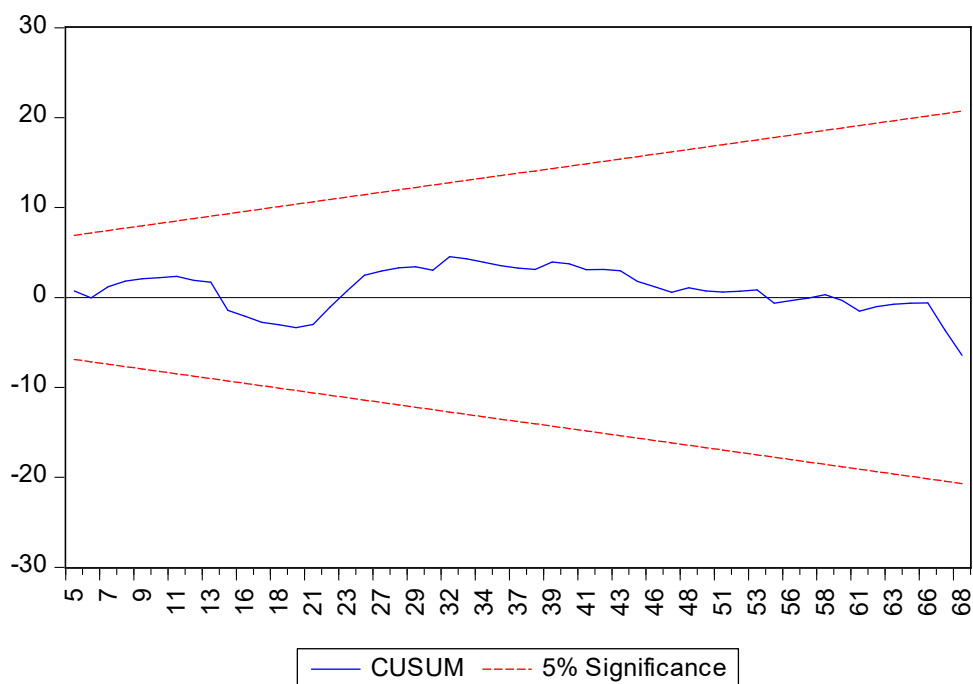
The regression diagnostics is presented in the table5 above and the Breusch-Goffery LM test for serial correlation test for the presence of stochastic dependence between the errors across time and as can be observed, the probability value of the F-stat (2.53) confirms that the null hypothesis of no serial correlation in the residuals is accepted at 5% level. The white test

for Heteroskedasticity also shows that the p-value (0.64) of the F-stat (0.55) confirms that the null hypothesis of homoscedastic errors is accepted at 5% level and finally, the Ramsey specification test also confirms the appropriateness of the functional specification of the model.

#### 4.6 Model Stability test

If the model's parameters are not stable then the model we estimated will not be very useful, regardless of how well it was estimated; and, if the model's parameters were unstable over the sample period, then the model was not even a good representation of how the series evolved over the sample period. To investigate the stability of our regression model, the CUSUM test (Brown, Durbin, and Evans, 1975) based on the cumulative sum of the recursive residuals is examined below

Figure 4.1: CUSUM Test



Visual examination of the graphs of the recursive parameter estimates can be useful in evaluating the stability of the model. The test finds parameter instability if the cumulative sum goes outside the area between the two critical lines. As observed from the figure, the lines for the

cumulative sum lie within the 5% critical lines and hence this suggests that the parameters of the model are stable.

#### 4.7 Regression Result for Borrowing Firm

Table 4.5: Regression result for borrowing firm

Dependent Variable: DMBLD

Method: Least Squares

Date: 03/20/20 Time: 01:51

Sample (adjusted): 2 65

Included observations: 48 after adjustments

Convergence achieved after 12 iterations

White heteroskedasticity-consistent standard errors & covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.979809	0.957525	9.378146	0.0000
BFC	-4.66E-08	1.73E-08	-2.684294	0.0103
AGE	-0.053107	0.020671	-2.569211	0.0137
SIZ	1.13E-09	1.59E-09	0.711153	0.4808
AR(1)	0.500929	0.117295	4.270670	0.0001
R-squared	0.447403	Mean dependent var		6.522373
Adjusted R-squared	0.395998	S.D. dependent var		1.505831
S.E. of regression	1.170295	Akaike info criterion		3.250721
Sum squared resid	58.89236	Schwarz criterion		3.445638
Log likelihood	-73.01730	Hannan-Quinn criter.		3.324380
F-statistic	8.703585	Durbin-Watson stat		1.564426
Prob(F-statistic)	0.000031	Wald F-statistic		3.475723
Prob(Wald F-statistic)	0.023960			
Inverted AR Roots	.50			

Source: Eviews, 8.0

From the result of the regression in table 4.5 carried out, it was observed that the Breusch

Pagan Godfrey test for Heteroskedasticity was also employed to further ascertain if there is the

presence of autocorrelation in the model. The F-statistics value stood at 0.557795 with an associated probability value of 0.6457 which is in excess of the probability value of 5% therefore indicating the absence of Heteroskedasticity in the model.

An examination of the summary statistics showed that the coefficient of determination depicted as  $R^2$  stood at a value of 0.44%. The adjusted  $R^2$  which was adjusted for the successive inclusion of all other variable in the model stood at a value of 0.39. This therefore implies that the model accounts for 39% of the systematic variation exhibited by the dependent variable. While the remaining 61% left on accounted for is been capture by the stochastic error term. The F-stat which measures the overall significance of the model stood at a value of 8.70 ( $p$ -value = 0.00) which is significant at 5% therefore suggest that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model.

The Durbin Watson statistics which measures the presence of autocorrelation in the model stood at a value of 1.56. This therefore indicates that on the average that there is the absence of autocorrelation in the model. Furthermore, an examination of the individual coefficients reveals that BFC was found to have a negative impact on bank lending decision as depicted by the negative coefficient value (-4.66). It was also statistically significant at 5% ( $p=0.01$ ). This therefore implies that on the average a percentage change in BFC will lead to a -4.66 percent decrease in bank lending decision. Age was found to have a negative impact on bank lending decision. It was also statistically significant at 5% ( $p=0.01$ ) with a negative coefficient (-0.053). The result suggests that on the average a percentage change in age of the firm will lead to a (5%) decrease in bank lending decision. Size was found to have a positive impact on bank lending decision (1.13). It was however non-statistically significant when tested at 5% level of significance ( $p=0.48$ ).

#### **4.8 Descriptive Statistics for Lending Firm (Deposit Money Bank)**

Table 4.6: Descriptive Statistics for lending firm (Deposit Money Bank)

	DMBLD	CAV	AGE	SIZ
Mean	6.269102	6.549073	47.77193	7.535321
Median	6.528015	6.416649	30.00000	7.372063
Maximum	8.612784	11.35909	124.0000	12.27975
Minimum	0.973128	2.894316	6.000000	4.877377
Std. Dev.	1.708653	1.752392	32.97565	1.743376
Skewness	-0.802440	0.076649	1.070739	0.243783
Kurtosis	3.320839	2.583228	3.012073	2.135984
Jarque-Bera	6.361615	0.468348	10.89192	2.337581
Probability	0.041552	0.791224	0.004314	0.310743

Source: Researchers Compilation (2020)

The descriptive statistics in Table 4.6 shows the measures of central tendency, measures of dispersion and measures of normality. From the result it was observed that the mean value of deposit money bank lending decision stood at a value of 6.27. The standard deviation measuring the spread of the distribution stood at 1.7. The Jarque-Bera statistics measuring the normality of the distribution stood at 6.36 with an associated probability value of 0.04. Cash was found to have a mean value 5.34 with a standard deviation of 1.09 which is an indicator of the extent of dispersion from the mean. The mean for firm size stood at a value of 6.48 with a standard deviation of 0.717. The mean value of age stood at 44.76, the standard deviation measuring the spread of the distribution stood at 16.27. With respect to the overall, Jarque-Bera statistics for all the variables all the variable except cash availability was normally distributed at 5% level of significance .

#### 4.9 Correlation Result for Lending Firm (Deposit Money Bank)

Table 4.7: Correlation result for lending firm (Deposit Money Bank)

		DMBLD	CAV	AGE	SIZ
DMBLD	Pearson correlation	1.000000			
	Sig (2 tailed)	-----			
	N	57			
CAV	Pearson correlation	0.652805	1.000000		
	Sig (2 tailed)	0.0000	-----		
	N	57	57		
AGE	Pearson correlation	-0.198652	-0.317849	1.000000	
	Sig (2 tailed)	0.1385	0.0160	-----	
	N	57	57	57	
SIZ	Pearson correlation	0.585089	0.924255	-0.356408	1.000000
	Sig (2 tailed)	0.0000	0.0000	0.0065	-----
	N	57	57	57	57

Source : Researchers Compilation (2020)

From result in Table 4.7, it is observed that cash availability was positively correlated with deposit money bank ( $r=0.652805$ ) which indicates that cash availability to the lender might actually be a major determinant of lending decision by the deposit money bank. A negative correlation is observed between age and deposit money bank lending decision ( $r= -0.198652$ ). It was also found to be non-statistically significant at 5% level of significance. Therefore implying that on the average there is no relationship between age and deposit bank lending decision. Size was found to have a positive relationship with deposit money bank lending decision ( $0.585089$ ). It was found to be statistically significant at 5% level of significance. However, the Variance Inflation Factor (VIF) was still used to test of multicollinearity among the explanatory variables and presented in Table 4.8 below:

#### **4.10 Regression Diagnostic Test: Variance Inflation Factor for Lending Firm (Deposit Money Bank)**

Table 4.8: Regression diagnostic test: Variance inflation factor for lending firm (Deposit Money Bank)

Variable	Coefficient Variance	VIF
C	3.517026	NA
CAV	0.060209	3.649085
AGE	0.000252	1.194275
SIZ	0.093439	3.371719

Researcher's Computation (2020) Using E-views Software 8.0

From table 4.8, the results of the variance inflation factor reported relatively small values. This is because it is within the threshold value (benchmark) set-out for the variance inflation which is 10 points. This is a further confirmation of the absence of the problem of multicollinearity among the regression variables. Cash availability was found to have a VIF value of 3.64. Age reported a centered VIF value of 1.194 while size reported a centered VIF value of 3.37.

#### **4.11 Regression Diagnostic Test: Breusch-Godfrey LM & Breusch Pagan Godfrey Test for Lending Firm (Deposit Money Bank)**

Table 4.9: Regression Diagnostic Test: Breusch-Godfrey LM & Breusch Pagan Godfrey Test for Lending Firm (Deposit Money Bank)

<b><i>B-G LM test for serial Corr</i></b>	
<i>F-statistic</i>	0.474853
<i>Obs*R-squared</i>	0.6271
<i>Prob. Chi-Square</i>	1.189270
	0.5518
<b><i>Heteroskedasticity Test: White</i></b>	
<i>F-statistic</i>	0.534198
<i>Prob (f)</i>	0.6623
<b><i>Ramsey Reset Test</i></b>	
<i>f-statistic</i>	0.005695
<i>Likelihood</i>	0.006242

Source: Researchers compilation (2020)

The regression diagnostics is presented in the table 4.9 and the Breush-Godfrey LM test for serial correlation test for the presence of stochastic dependence between the errors across time and as can be observed, the probability value of the F-stat (2.53) confirms that the null hypothesis of no serial correlation in the residuals is accepted at 5% level. The white test for Heteroskedasticity also shows that the p-value (0.64) of the F-stat (0.55) confirms that the null hypothesis of homoscedastic errors is accepted at 5% level and finally, the Ramsey specification test also confirms that the appropriateness of the functional specification of the mode.

#### 4.12 Regression result for the Lending Firm (Deposit Money Bank)

Table 4.10: Regression result for the lending firm (Deposit Money Bank)

Dependent Variable: DMBLD

Method: Least Squares

Date: 03/20/20 Time: 01:56

Sample (adjusted): 3 68

Included observations: 35 after adjustments

Convergence achieved after 22 iterations

White heteroskedasticity-consistent standard errors & covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.065474	1.875374	1.101367	0.2798
CAV	0.495297	0.245376	2.018523	0.0529
AGE	-0.005737	0.015878	-0.361330	0.7205
SIZ	0.130217	0.305678	0.425994	0.6733
AR(2)	-0.097359	0.165310	-0.588952	0.5605
AR(1)	0.658855	0.168711	3.905238	0.0005
R-squared	0.558511	Mean dependent var		6.191663
Adjusted R-squared	0.482393	S.D. dependent var		1.926742
S.E. of regression	1.386193	Akaike info criterion		3.645804
Sum squared resid	55.72440	Schwarz criterion		3.912435
Log likelihood	-57.80158	Hannan-Quinn criter.		3.737845
F-statistic	7.337374	Durbin-Watson stat		1.567864
Prob(F-statistic)	0.000150	Wald F-statistic		6.622273
Prob(Wald F-statistic)	0.001520			
Inverted AR Roots	.44	.22		

Source: Eviews,8.0

The regression result in table 4.10 shows the analysis that was carried out to ascertain the impact of accounting information on bank lending decision. From the analysis it was observed that the first explanatory variable which is cash availability was found to have a coefficient value of 0.495, the probability value measuring the spread of the distribution stood at a value of 0.05. The age of the firm was found to have a negative impact on the bank lending

decision. It was also found to be non-statistically significant when tested at 5% level of significance. This therefore implies that on the average a unit change in the age of the firm will lead to a 0.05 unit increase in deposit money bank lending decision.

Furthermore, an examination of the summary statistics revealed that the coefficient of determination depicted as  $R^2$  was found to have a value of 0.55. This therefore indicates that on the average the model account for 55% of the systematic variation exhibited by the dependent variable. However, the remaining 45% left on accounted for is been captured by the stochastic error term. The F-stat measuring the overall significance of the model stood at a value of 7.3 it was also found to have an associated probability value of 0.00 therefore indicating that the model is jointly statistically significant at 5% level of significance. The Durbin Watson statistics measuring the overall significance of the model stood at a value of 1.56 therefore indicating that on the average there is the absence of autocorrelation in the model

#### 4.13 One-Sample Statistics for Comparison of Rank Order of Use of Financial Statement

Table 4.11: One-Sample Statistics for Comparison of Rank Order of Use of Financial Statement

	N	Mean	Std. Deviation	Std. Error Mean
LogPL	46	4.8524807930 00001	1.6910930590 00000	.24933806900 0000
LOGCASH	46	5.3468619670 00001	1.0908692880 00000	.16083990200 0000
NCA	60	6.3325836470 00001	1.0219349780 00000	.13193123800 0000

The result in table 4.11 shows the comparison based on rank order of use of the three popularly used financial statements (income statement, statement of cash flows and statement of financial position) proxied respectively by profit level, cash and cash equivalent and non-current asset. The first variable which is income statement was found to have a mean value of 4.85, and a standard deviation value of 1.69, statement of cash flows was found to have a mean

value of 5.34, with a standard deviation value of 1.09, and the last variable which is statement of financial position was found to have a mean value of 6.33 with a standard deviation value of 1.02.

#### 4.14 One-Sample Statistics for T-statistic of Rank Order of Use of Financial Statement

Table 4.12: One-Sample Statistics for T-statistic of Rank Order of Use of Financial Statement

	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
LogPL	19.461	45	.000	4.8524807930 00001	4.3502881440 00000	5.3546734420 00000
LOGCASH	33.243	45	.000	5.3468619670 00001	5.0229137760 00000	5.6708101580 00000
NCA	47.999	59	.000	6.3325836470 00001	6.0685898490 00000	6.5965774450 00000

Table 4.12 gives the result of the T-statistics that was carried out for each of the variables. From the result it was observed that the income statement was found to have a T statistics value of 19.46. it was also found to be statistically significance at 5% level of significance. Statement of cash flows was found to have a T value of 33.24 with an associated probability value of 0.00 which is less than 5% level of significance, thereby indicating that the variable is statistically significant at 5% level of significance. The last variable which is statement of financial position was found to have a T value of 47.99 with an associated probability value of 0.00. This also indicates that the variable is statistically significant at 5% level.

From the result above, it was observed that statement of financial position proxied by non-current asset ranked first among the financial statements judging by the mean value of 6.33 and a T value of 47.9. Statement of cash flow proxied by cash and cash equivalent was

considered second in the ranking, judging by the mean value of 5.34, and T value of 33.2. Finally, income statement proxied by profit level was ranked as the least financial statement that should be considered by deposit money banks in lending decision. From the analysis so far it can therefore be established that on the average statement of financial position is a key financial statement of the accounting information that deposit money banks should look out for when giving out loans to customer.

#### **4.15. Discussion of Findings and Hypotheses Testing**

##### **Decision Rule**

*We accept the null hypothesis if the probability value for the coefficient beta is  $> 0.05$  at 5% significance level, otherwise we reject the null and accept the alternative hypothesis.*

**H<sub>01</sub>: There is no significant relationship between cash availability and lending decision by deposit money banks.**

The analysis of coefficients reveals that the effect of cash availability on deposit money banks was found to be statistically significant at 5% ( $p=0.05$ ). It was also found to have a positive impact on deposit money banks as revealed by the positive coefficient value of (0.495). Consequently, the study rejects the null hypothesis that states that there is no significant relationship between cash availability and lending decision by deposit money banks. It therefore implies that on the average cash availability is a major determinant of deposit money bank lending decision. The findings are in tandem with Emeni (2014)

**H<sub>02</sub>: There is no significant relationship between borrowing firms' characteristics and lending decision by deposit money banks.**

The analysis of coefficients reveals that the borrowing firm characteristics which stood at a value of -4.66 and a probability value that was less than the threshold value of 5% ( $p=0.01<0.05$ ) therefore lead to the rejection of the null hypothesis. It is therefore concluded

that there is a significant but negative relationship between the borrowing firm's characteristics and lending decision by deposit money banks. The result is supported by the findings of Ghulam and Iyofor (2017)

**H<sub>03</sub>: None of the financial statements is the most important comparable to others that influences lending decisions of deposit money banks**

From the result above, it was observed that statement of financial position proxied by non-current asset ranked first above the others financial statements (statement of cash flows and income statement), judging by the mean value of 6.33 and a T value of 47.9. It was also found to be statistically significant judging by the significant value which was less than 5% level of significance. This therefore lead to the rejection of the Null hypothesis which states that none of the financial statements is the most important comparable to others that influences lending decisions of deposit money banks; and acceptance of the alternative hypothesis that states otherwise. This finding is in tandem with the findings of Hail (2013).

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

## **5.1 Introduction**

The chapter presents the summary of the findings, the conclusion and the recommendations based on the findings of the study.

## **5.2 Summary of Findings**

The summary of findings of the study is as follows;

1. The analysis of coefficients reveals that the effect of cash availability proxied by cash and cash equivalent of deposit money banks was found to be statistically significant at 5% ( $p=0.05$ ). It was also found to have a positive impact on deposit money banks lending decision as revealed by the positive coefficient value of (0.495).
2. The analysis of coefficients reveals that the borrowing firm characteristics proxied by cash and cash equivalent of the borrowing firm which stood at a value of -4.66 and a probability value that was less than the threshold value of 5% ( $p=0.01<0.05$ ), was found to be statistically significant but negatively related to deposit money banks lending decision.
3. Statement of financial position proxied by the value of non-current asset of the borrowing firm was found to be a key determinant of deposit money banks' lending decision as it ranks first among the financial statements. This was closely followed by statement of cash flows proxied by cash and cash equivalent of the borrowing firm and the least ranked financial statement is income statement proxied by profit level of the borrowing firm.

## **5.3 Conclusion**

The quality of accounting information is a good yardstick that deposit money banks rely upon to aid them in their lending decisions. It is therefore worthwhile to note that only accurate, reliable and relevant accounting information will help deposit money banks in making the best lending decisions. The focus of this study was to examine the relationship between accounting information and lending decisions of deposit money banks in Nigeria. The

findings of the study revealed that lender cash availability was found to impact on deposit money banks' lending decision. Borrowing firm's characteristics was found not to be a major determinant of deposit money banks' lending decision. From the findings also statement of financial position was found to rank first, followed by statement of cash flow and the least ranked is the income statement. Conclusively, statement of financial position as an accounting information is found to be a major determinant of deposit money banks' lending decision

#### **5.4 Recommendations**

1. Based on our findings, the study recommends that cash availability is an element that should not be undermined by deposit money banks. Therefore there should be a constant check on the minimum reserve that should be kept in the bank vault in order to meet lending requirements.
2. Based on our findings, analysis of beta coefficients reveals that borrowing firm characteristics proxied by cash and cash equivalent stood at a value of -4.66, signifying negative association with deposit money bank lending decision. It is therefore recommended that this variable should not be solely relied upon by deposit money bank when making a lending decision.
3. Based on our findings, the study recommends that deposit money banks should focus more on statement of financial position as the asset of the borrowing firm is considered important when making financial decision because collateral backing is a major element that cannot be undermined due to the fact that it helps to cushion the effect of losses in the advent of default. It is also recommended that the statement of cash flow should also be considered as cash is seen as ultimate reality and as such helps to measure ability to repay if the loan is granted. Finally, income statement should not be solely relied on in loan decision as profit may be an illusion which could mislead lenders if solely relied on.

## **5.5 Contribution to Knowledge**

The study contributed to knowledge in the following ways:

1. this study, being the first study to investigate in single study the relationship between accounting information and deposit money bank lending decision from both the lender and borrower's perspectives in Nigeria.
2. this study equally contributed to knowledge by providing more insight on lending decision of deposit money bank by the emphasis on the rank order of use of the financial statements in lending decision.

## **5.6 Recommendation for Further Studies**

1. The time frame and sample size could be increased in order to cover a longer time frame and a more representative sample size in order to enhance the quality of the results.
2. More variables of a technical nature that impinge directly on bank lending decision measurement could also be introduced into the model for more robustness.
3. There could also be comparative study on borrowers' financial statements and deposit money banks financial statements using both primary data and secondary data so as to capture every detail regarding study.

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## Appendices

	DMBLD	BFC	SIZ	AGE
Mean	6.375228	5.346862	6.480239	44.76087
Median	6.655329	5.259690	6.274115	42.50000

Maximum	8.378398	7.214936	8.654834	78.00000
Minimum	2.766041	3.040998	5.460871	13.00000
Std. Dev.	1.455936	1.090869	0.717398	16.27566
Skewness	-0.507790	-0.124401	1.551132	0.364660
Kurtosis	2.489701	2.207561	4.788931	2.384089
Jarque-Bera	2.475968	1.322235	24.57995	1.746572
Probability	0.289968	0.516274	0.000005	0.417577
Sum	293.2605	245.9557	298.0910	2059.000
Sum Sq. Dev.	95.38871	53.54981	23.15967	11920.37
Observations	46	46	46	46

Heteroskedasticity Test: Breusch-Pagan-Godfrey

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F-statistic	0.557795	Prob. F(3,44)	0.6457
Obs*R-squared	1.758626	Prob. Chi-Square(3)	0.6240
Scaled explained SS	1.590940	Prob. Chi-Square(3)	0.6614

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Source: Eviews,8.0

Breusch-Godfrey Serial Correlation LM Test:

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F-statistic	2.531148	Prob. F(2,41)	0.0919
Obs*R-squared	5.275252	Prob. Chi-Square(2)	0.0715

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Source: Eviews,8.0

Variance Inflation Factors

Date: 03/20/20 Time: 01:40

Sample: 1 65

Included observations: 48

Variable	Coefficient		Uncentered		Centered	
	Variance	VIF	VIF	VIF		
C	0.916854	11.74515	NA			
BFC	3.01E-16	1.702363	1.531721			
SIZ	2.51E-18	3.096017	1.948033			
AGE	0.000427	12.45847	1.348271			
AR(1)	0.013758	1.911104	1.839225			

Source: Eviews,8.0

Covariance Analysis: Ordinary

Date: 03/20/20 Time: 05:39

Sample: 1 65

Included observations: 54

Balanced sample (listwise missing value deletion)

Correlation

Probability

Observations	DMBLD	BFC	SIZ	AGE
DMBLD	1.000000			
	-----			
	54			
BFC	0.030260	1.000000		
	0.8280	-----		
	54	54		
SIZ	-0.377390	-0.194486	1.000000	
	0.0049	0.1588	-----	
	54	54	54	

AGE	-0.492276	0.131487	0.148241	1.000000
	0.0002	0.3433	0.2847	-----
	54	54	54	54

Source: Eviews,8.0

### Regression Result :Lending Firm

Dependent Variable: DMBLD

Method: Least Squares

Date: 03/20/20 Time: 01:56

Sample (adjusted): 3 68

Included observations: 35 after adjustments

Convergence achieved after 22 iterations

White heteroskedasticity-consistent standard errors & covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.065474	1.875374	1.101367	0.2798
CAV	0.495297	0.245376	2.018523	0.0529
AGE	-0.005737	0.015878	-0.361330	0.7205
SIZ	0.130217	0.305678	0.425994	0.6733
AR(2)	-0.097359	0.165310	-0.588952	0.5605
AR(1)	0.658855	0.168711	3.905238	0.0005

R-squared	0.558511	Mean dependent var	6.191663
Adjusted R-squared	0.482393	S.D. dependent var	1.926742
S.E. of regression	1.386193	Akaike info criterion	3.645804
Sum squared resid	55.72440	Schwarz criterion	3.912435
Log likelihood	-57.80158	Hannan-Quinn criter.	3.737845
F-statistic	7.337374	Durbin-Watson stat	1.567864
Prob(F-statistic)	0.000150	Wald F-statistic	6.622273

Prob(Wald F-statistic) 0.001520

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Inverted AR Roots .44 .22

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Source: Eviews,8.0

Breusch-Godfrey Serial Correlation LM Test:

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F-statistic	0.474853	Prob. F(2,27)	0.6271
Obs*R-squared	1.189270	Prob. Chi-Square(2)	0.5518

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Source: Eviews,8.0

Heteroskedasticity Test: Breusch-Pagan-Godfrey

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F-statistic	0.534198	Prob. F(3,31)	0.6623
Obs*R-squared	1.720440	Prob. Chi-Square(3)	0.6324
Scaled explained SS	3.145575	Prob. Chi-Square(3)	0.3697

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Source: Eviews,8.0

Variance Inflation Factors

Date: 03/20/20 Time: 01:58

Sample: 1 70

Included observations: 35

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Variable	Coefficient Variance	Uncentered VIF	Centered VIF
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C	3.517026	15.05949	NA
CAV	0.060209	16.86501	3.649085
AGE	0.000252	4.756954	1.194275
SIZ	0.093439	26.77819	3.371719
AR(2)	0.027327	1.294862	1.269290
AR(1)	0.028463	1.366292	1.207212

Source: Eviews,8.0

Ramsey RESET Test

Equation: UNTITLED

Specification: DMBLD C CAV AGE SIZ

Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	0.075463	52	0.9401
F-statistic	0.005695	(1, 52)	0.9401
Likelihood ratio	0.006242	1	0.9370

Source: Eviews,8.0

	DMBLD	CAV	AGE	SIZ
Mean	6.269102	6.549073	47.77193	7.535321
Median	6.528015	6.416649	30.00000	7.372063
Maximum	8.612784	11.35909	124.0000	12.27975
Minimum	0.973128	2.894316	6.000000	4.877377
Std. Dev.	1.708653	1.752392	32.97565	1.743376
Skewness	-0.802440	0.076649	1.070739	0.243783

Kurtosis	3.320839	2.583228	3.012073	2.135984
Jarque-Bera	6.361615	0.468348	10.89192	2.337581
Probability	0.041552	0.791224	0.004314	0.310743
Sum	357.3388	373.2972	2723.000	429.5133
Sum Sq. Dev.	163.4918	171.9692	60894.04	170.2041
Observations	57	57	57	57

Covariance Analysis: Ordinary

Date: 03/20/20 Time: 05:11

Sample (adjusted): 1 68

Included observations: 57 after adjustments

Balanced sample (listwise missing value deletion)

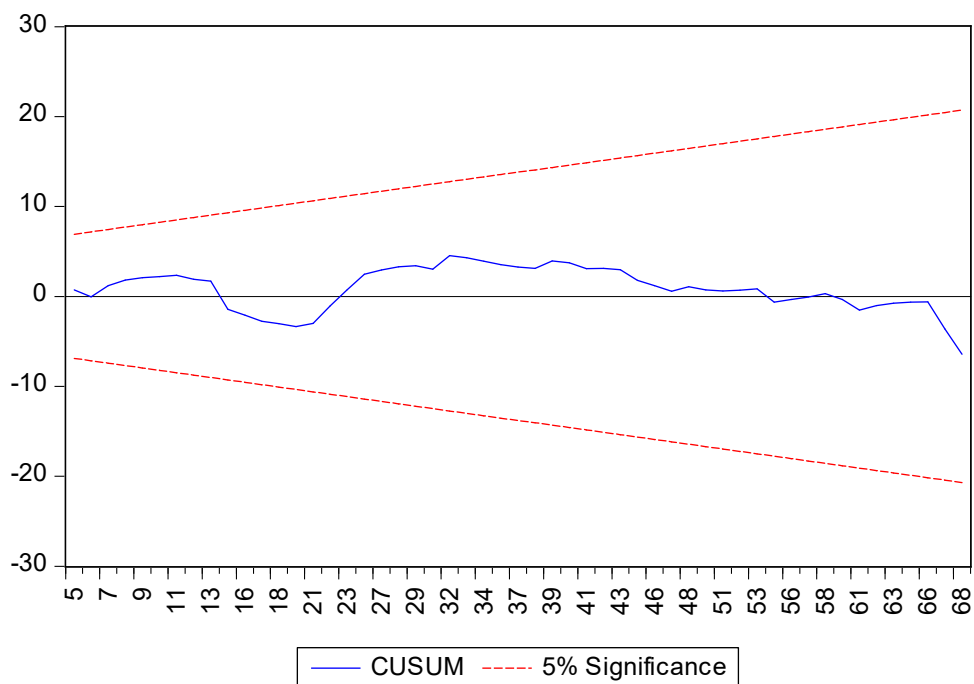
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Correlation

Probability

Observations	DMBLD	CAV	AGE	SIZ
DMBLD	1.000000 ----- 57			
CAV	0.652805 0.0000 57	1.000000 ----- 57		
AGE	-0.198652 0.1385 57	-0.317849 0.0160 57	1.000000 ----- 57	
SIZ	0.585089 0.0000 57	0.924255 0.0000 57	-0.356408 0.0065 57	1.000000 ----- 57

Source: Eviews,8.0



### One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
LogPL	46	4.852480793 000001	1.691093059 000000	.2493380690 00000
LOGCAS H	46	5.346861967 000001	1.090869288 000000	.1608399020 00000
NCA	60	6.332583647 000001	1.021934978 000000	.1319312380 00000

### One-Sample Test

Test Value = 0

	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
LogPL	19.461	45	.000	4.852480793 000001	4.350288144 000000	5.354673442 000000
LOGCASH	33.243	45	.000	5.346861967 000001	5.022913776 000000	5.670810158 000000
NCA	47.999	59	.000	6.332583647 000001	6.068589849 000000	6.596577445 000000

### Banking Sector

		DMBLD	CAV	SIZ	AGE
First Bank	2014	5.633522	5.572563	6.542934	120
	2015	5.573465	5.587114	6.522754	121
	2016	3.318877	5.80956	6.551179	122
	2017	3.30129	3.879956	5.426353	123
	2018	2.766041	4.221127	5.431885	124

<b>Sterling Bank</b>	2014	7.208524	8.036506	8.916211	54
	2015	7.38461	8.001357	5.902792	55
	2016	8.08636	7.649978	5.919499	56
	2017	5.776754	4.998743	6.028896	57
	2018	5.697574	4.830377	6.03578	58
<b>Stanbic Bank</b>	2014	5.475731	2.894316	4.877377	25
	2015	5.299647	3.90309	4.878929	26
	2016	4.998637	3.247482	4.880253	27
	2017	0.973128	3.877659	4.988443	28
	2018	5.303768			29
<b>Zenith Bank</b>	2014	5.494786	5.940443	6.534511	24
	2015	5.186007	5.821759	6.574069	25
	2016	5.522354	5.753091	6.631823	26
	2017	5.387497	5.727143	6.684276	27
	2018	5.190861	#NUM!	6.695083	28
<b>Union Bank</b>	2014	5.025449	4.766837	4.963896	97
	2015	7.08869	4.736006	5.99919	98
	2016	7.01879	4.550669	6.050567	99
	2017	7.495091	5.138293	6.125456	100
	2018	7.716776		6.121985	101
<b>Access Bank</b>	2014	7.80682		9.297094	25
	2015	8.033424	7.801789	9.382367	26
	2016	8.378398	8.169198	9.490655	27
	2017	8.285557	8.298442	9.531566	28
	2018	8.170262		9.598584	29
<b>Eco Bank</b>	2014	6.0208	6.375314	7.384596	29

	2015	8.612784	6.416649	7.372063	30
	2016	8.569374	9.305531	9.796286	31
	2017	8.269513	9.293498	9.836582	32
	2018	6.021574			33
<b>Fidelity Bank</b>	2014	5.096326	5.102924	6.07446	26
	2015	5.202505	5.057419	6.090513	27
	2016	5.262925	4.934574	6.113322	28
	2017	6.722576	5.148896	6.139632	29
	2018	7.016004	7.495745	8.519661	68
<b>Wema Bank</b>	2014	6.528015	7.752763	8.59851	70
	2015	7.348782	7.441046	9.624511	71
	2016	6.883447	7.35075	8.585899	72
	2017	6.588081			73
	2018	5.001695	6.332517	8.118867	31
<b>FCMB Bank</b>	2014	6.001317	6.85921	8.111928	33
	2015	5.905665	6.764755	8.118484	34
	2016	6.211831	5.16544	6.119256	35
	2017	7.051338	#NUM!	8.123172	36
	2018	7.319751	8.326721	9.131917	23
<b>Diamond Bank</b>	2014	7.586334	8.274696	9.191782	25
	2015	7.787516	8.187267	9.220764	26
	2016	7.848283	8.178857	9.234215	27
	2017	7.776424	#NUM!	#NUM!	28
	2018	7.690271	11.35909	12.27975	23
<b>GT Bank</b>	2014	7.930063	8.23838	9.357483	25
	2015	7.954534	8.324	9.417196	26
	2016	8.294466	8.629843	9.451008	27

	2017	7.994111	#NUM!	9.433373	28
	2018	4.735208	5.349351	6.345847	65
<b>UBA</b>	2014	4.534267	6.27372	6.139866	67
	2015	8.184691	8.373677	9.573193	68
	2016	7.88421	8.436361	9.471771	69
	2017	7.671164	#NUM!	6.555252	70
	2018	7.235563	7.232896	8.605983	6
<b>UNITY Bank</b>	2014	7.249964	7.49544	8.646718	8
	2015	2.984527	7.302753	8.964225	9
	2016	3.055378	7.303596	9.005342	10
	2017	#VALUE!	7.304438	8.405093	11
	2018	#VALUE!	7.305281	8.405093	11

<b>INDUSTRIAL GOODS COMPANIES</b>							
		<b>DMBLD</b>	<b>PL</b>	<b>SIZ</b>	<b>AGE</b>	<b>CASH &amp; CASH EQV</b>	<b>NON CURRENT ASSET</b>
<b><u>GREIF NIGERIA PLC</u></b>	2014	5.633522	43,443	663,772	74	170,261	162,480
	2015	5.573465	24,624	715,714	75	252,623	148,432
	2016	3.318877	27,106	722,490	76	72,790	156,018

	2017	3.30129	49,424	786,664	77	169,657	150,086
	2018	2.766041	-262,589	475,731	78	123,608	98,431
<b><u>BERGER PAINTS PLC</u></b>	2014	7.208524	148,808	3,640,145	55	421,878	1,564,445
	2015	7.38461	330,316	3,895,870	56	600,741	1,727,602
	2016	8.08636	224,007	4,102,265	57	486,949	2,541,572
	2017	5.776754	246,276	4,311,424	58	755,747	2,729,446
	2018	5.697574	320,509	4,535,299	59	518,864	2,889,175
<b><u>LAFARGE AFRICA PLC.</u></b>	2014	5.475731	28,360,14 6	305,878,828	55	11,305,623	249,620,718
	2015	5.299647	29,837,39 5	451,682,798	56	13,158,970	378,434,035
	2016	4.998637	20,778,34 8	502,490,95	57	-3,730,386	404,147,345
	2017	0.973128	- 13,223,62 6	587,290,284	58	-1,148,616	436,186,427
	2018	5.303768	4,141,764	540,736,663	59	- 23,808,042	447,376,222
<b><u>MEYER PLC.</u></b>	2014	5.494786	-36,575	2,588,069	54		1,956,040
	2015	5.186007	52,860	2,328,334	55	35,776	1,908,153
	2016	5.522354	-219,196	2,205,516	56	4,048	1,605,859
	2017	5.387497	-267,844	1,917,776	57	17,765	1,600,155
	2018	5.190861	319,187	1,865,942	58	22,628	1,564,566
<b><u>BETA GLASS PLC.</u></b>	2014	5.025449	2,390,223	26,928,387	40	3,020,146	9,602,728
	2015	7.08869	1,991,127	27,171,069	41	3,850,263	11,675,368
	2016	7.01879	3,799,393	33,184,130	42	7,873,640	10,533,274
	2017	7.495091	4,115,142	38,211,613	43	6,930,967	11,877,447
	2018	7.716776	5,952,805	46,079,639	44	8,872,798	17,528,799
<b><u>CUTIX PLC.</u></b>	2014	7.80682	207,116	1,744,670	32	-739,778	769,917
	2015	8.033424	149,209	1,968,814	33	22,243	892,451
	2016	8.378398	190,551	1,891,718	34	79,223	819,254

	2017	8.285557	257,497	2,329,792	35	115,482	769,450
	2018	8.170262	440,295	2,836,262	36	104,356	869,103
<b><u>PREMIER PAINTS PLC.</u></b>	2014	6.0208	8,091	288,982	32	3,950	203,954
	2015	8.612784	-29,497	341,289	33	-19,563	269,522
	2016	8.569374	-33,556	320,042	34	-53,382	255,989
	2017	8.269513	-53,903	284,085	35	-119,625	245,059
	2018	6.021574	-69,136	262,172	36	-179,170	232,774
<b><u>PORTLAND PAINTS &amp; PRODUCTS NIGERIA PLC.</u></b>	2014	5.096326	148,643	1,292,921	29	225,050	547,040
	2015	5.202505	-232,985	844,534	30	161,444	456,202
	2016	5.262925	8,596	760,529	31	34,080	438,083
	2017	6.722576	58,170	1,415,071	32	194,207	420,955
	2018	7.016004	206,693	1,551,029	33	491,655	441,919
<b><u>DANGOTE CEMENT PLC.</u></b>	2014	6.528015	182,523	828,481	22	16,403,466	526,722
	2015	7.348782	178,280	988,904	23	37,845	577,017
	2016	6.883447	306,251	1,251,256	24	109,401	569,017
	2017	6.588081	254,630	1,316,535	25	161,755	549,962
	2018	5.001695	481,456	1,421,641	26	159,026	535,934
<b><u>NOTORE CHEMICAL IND PLC.</u></b>	2014	6.001317	- 11,653,75 8	93,027,846	9		85,649,501
	2015	5.905665	- 11,871,62 3	86,793,218	10		79,785,279
	2016	6.211831	- 12,016,86 2	153,345,028	11		147,110,578
	2017	7.051338	8,652,434	147,215,279	12	- 36,602,581	139,871,225

	2018	7.319751	-2,013,224	152,838,228	13	596,768	140,211,922
<b>BUA CEMENT PLC.</b>	2014	7.586334	8.274696	9.191782	1		
	2015	7.787516	8.187267	9.220764	2		
	2016	7.848283	8.178857	9.234215	3		
	2017	7.776424	#NUM!	#NUM!	4		
	2018	7.690271	11.35909	12.27975	5		
<b><u>AUSTIN LAZ &amp; COMPANY PLC.</u></b>							1,378,151
	2014	7.930063	-158,942	2,041,290	32	9,650	
	2015	7.954534	-59,092	1,867,988	33	4,240	1,214,712
	2016	8.294466	-146,126	1,760,775	34	1,099	1,051,273
	2017	7.994111	315	1,699,093	35	4,615	1,422,801
	2018	4.735208	-16,230	1,658,701	36	4,894	1,429,500
<b><u>CAP PLC</u></b>	2014	4.534267	1,637	1,180,573	49	1,091,337	399,746
	2015	8.184691	1,740	1,520,133	50	1,864,445	410,324
	2016	7.88421	1,603	2,283,490	51	2,325,540	595,565
	2017	7.671164	1,499	2,442,318	52	2,820,459	691,059
	2018	7.235563	2,029	3,063,045	53	4,339,294	729,962