

**EFFECT OF FIRM ATTRIBUTES ON VOLUNTARY ACCOUNTING
DISCLOSURE OF LISTED FINANCIAL SERVICE COMPANIES IN NIGERIA**

BY

IBRAHIM YUSUF

**DEPARTMENT OF ACCOUNTING
AHMADU BELLO UNIVERSITY, ZARIA
NIGERIA**

AUGUST, 2018

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BY

Ibrahim YUSUF

**B.Sc ACCOUNTING (BUK), M.Sc ACCOUNTING & FINANCE (ABU),
PDGE (USMANU DANFODIO UNIVERSITY SOKOTO)
P14ADAC9002**

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AUGUST, 2018

DECLARATION

I declare that the work in this thesis report entitled, “Effect of Firm Attributes on Voluntary Accounting Disclosure of Listed Financial Service Companies in Nigeria” has been performed by me. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this thesis report was previously presented for another Certificate, Degree or Diploma at this or any other institution.

Ibrahim YUSUF

Date _____

CERTIFICATION

This thesis report entitled EFFECT OF FIRM ATTRIBUTES ON VOLUNTARY ACCOUNTING DISCLOSURE OF LISTED FINANCIAL SERVICE COMPANIES IN NIGERIA by IBRAHIM YUSUF meets the regulations governing the award of the degree of Doctor of Philosophy in Accounting and Finance of Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

Dr. Salisu Mamman _____ Date _____
Chairman, Supervisory Committee

Prof. Shehu Usman Hassan _____ Date _____
Member, Supervisory Committee

Dr. Hassan Ibrahim _____ Date _____
Member, Supervisory Committee
Supervisory Committee

Dr. Salisu Abubakar _____ Date _____
Head of Department

Prof. Sadiq Zubair Abubakar _____ Date _____
Dean, School of Postgraduate Studies

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ABSTRACT

The extent to which listed financial service companies in Nigeria disclose voluntary information is at increasing rate. This therefore led to asking what factors influence the disclosure by these companies. As such, this study assessed the effect of firm attributes on voluntary accounting disclosure of listed Financial Service Companies in Nigeria. It investigated whether profitability, liquidity, leverage, firm size, firm age, Forensic Accounting Services and Information and Communication Technology (ICT) influence voluntary accounting disclosure of the companies considered by this study. Correlational research design was adopted. Secondary data was extracted for a sample of 32 out of 55 these firms over a period of ten (10) years from 2007-2016. The data were analyzed using panel multiple regression. To ensure the validity and reliability of the data used, fixed and random effect regressions were performed and fixed effect regression was suggested after conducting Hausman specification test. The results reveal that profitability, leverage, firm size, firm age, forensic accounting services and ICT are significantly and positively associated with voluntary accounting disclosure of the companies under study. On the contrary, liquidity is significant but negatively associated with voluntary accounting disclosure of the companies. From the results, it is therefore concluded that firms that voluntarily disclose more information are profitable, less liquid, more levered, larger, more matured, engage more in provision of forensic accounting services and employ more information and communication technology. Though it was argued on the contrary in literature. Therefore, it is recommended among others that the managements of these firms should use their resources in improving their profitability. This can be done in view of the fact that profitable firm have available resources that will make them disclose more

information voluntarily. As they disclose additional information voluntarily, shareholders will be well informed and in turn make taking the right decision on the company. There could be more future investment and employment opportunities. It is a signal of financial success of the venture and it promotes its impression positively. The management of listed financial service companies in Nigeria should increase the forensic accounting services due to its positive and significant effect on voluntary accounting disclosure of the companies. This can be achieved by engaging forensic accountants' services in terms of litigation support, whistle blowing as well as fraud auditing. This will serve as quality assurance to stakeholders and a support to traditional auditing system.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Accounting information about corporate organizations is vital to bridging information asymmetries that exist between managers of such organizations and various stakeholders of the corporation. The various stakeholders seek to make decisions which without the necessary accounting information become impossible. The accounting system is therefore supposed to be designed in such a manner that it produces and discloses information that is both relevant and faithfully represented.

Accounting Disclosure, otherwise referred to as information publicity (Tian & Chen, 2009) is formally referred to as a package of financial and nonfinancial information that is disseminated to different stakeholders; usually through the medium of financial reports. It consists of information that must be provided to enable users understand the financial position of the entity and its financial performance (ICAN, 2014). Such disclosure of accounting information in the financial statement is however categorized as either mandatory or voluntary (Sejjaka, 2003). Mandatory disclosure is required by law, while as the name implies, voluntary type of disclosure is at the discretion of management.

There are however, arguments that mandatory disclosure by listed companies does not adequately fulfill investors' diversified information needs. Such arguments stem from the view that societal needs are perpetually dynamic, thereby leading to greater needs for increased information disclosure. Subscribers to these arguments, therefore view any incremental disclosure of information (voluntarily) as boosting firm's image or standing with investors and other stakeholders (Tian & Chen, 2009).

Conversely, others posit that mandatory disclosure suffices and feel that additional disclosure may lead to information overload (Sejjaka, 2003). Yet, others such as Yuen, Liu, Zhang, and Lu (2009) opine that stakeholders especially investors are interested in every information irrespective of whether it is mandatory or voluntary. Due to these divergent arguments, voluntary disclosure of information in excess of mandatory disclosure has been receiving increasing research interest (Laud & Schepers, 2009). As such, stockholders empower management to disclose voluntary accounting information because it is likely to increase transparency, makes financials less complex and enhances firm value.

Moreover, most of the research interest seems to be focused on developed markets with little evidence from developing climes. This is despite the growing amount of voluntary disclosure in the developing countries. In particular, among listed companies in a developing clime like Nigeria, the financial services firms have over the years voluntarily disclosed additional information in their financial statements without justification for it being investigated.

Investigating the motivations for voluntary disclosure of listed financial services firms in Nigeria is particularly important. This is because such firms like: banks, insurance firms, brokerage companies and investment companies, all regularly provide services and products to consumers and businesses and account for a significant proportion of market capitalization on the Nigerian Stock Exchange (NSE). It is also a well-recognized fact that globally, financial services companies lead the world in terms of earnings and equity market capitalization. Also, as far back as the 1960s, Singhvi (1967) had previously document that the extent to which financial service companies

are found to be disclosing voluntary information is at an increasing rate. The fact that such firms are usually a part of large, well-diversified conglomerate firms has therefore led to asking what factors influence voluntary accounting disclosure of listed financial service companies in Nigeria; especially when one considers that there are increased costs associated with additional disclosure.

A natural starting point for the investigation of what characteristics inform the voluntary disclosure by the said firms, would be to examine their firm-specific attributes. This is because firm-specific attributes, such as profitability, liquidity, leverage, firm size, and firm age, amongst others have previously been associated with influencing various firm-level decisions such as those concerning financing, investment, dividend, accounting choices as well as the quality of financial reporting. In relation to voluntary disclosure, it is posited that firms disclose more information in order to justify the profit they earned (Apostolou & Nanopoulos, 2009, Karim, 1996, Meek, Roberts & Gray, 1995). Given that listed financial services companies in Nigeria are considered profitable, their additional (voluntary) disclosure may also be instigated on the basis of justifying their performance (Samir, James & Fornaro, 2003). In addition, it is argued that management of profitable firms may wish to disclose more information to the public to promote a positive impression (Alsaeed, 2006). Also, firms which have experienced losses for several years have also been argued to have the tendency to engage in lower financial reporting disclosure (Ogwe, 2014). Furthermore, less profitable firms may lack necessary resources for collecting and disseminating information due to cost constraints (Buzby, 1975). A counter argument is that

unprofitable undertakings are also inclined to release more information to defend their poor performance (Owusu-Ansah, 1998).

Firm size may also affect voluntary disclosure. Small firms are usually less profitable, therefore it has been posited that such firms have lower financial reporting quality (Albitar, 2015) and in relation to this argument are likely to disclose inadequate information. Conversely, according to Firth (1979) large firms have the capacity to collect and disseminate information needed for their internal control. Given this position, such companies with large assets may have the tendency to reveal voluntary information (Qu, 2011). Furthermore, larger firms are more exposed to public scrutiny than smaller firms making them more inclined to disclose additional information (Alsaeed, 2006; Cooke, 1989). Therefore, since on average, listed financial services firms in Nigeria are considered to be large, it is apt to conjecture that the managers are more likely to realize the possible benefits of better disclosure (Barako, Hancock & Izan, 2006, Aripin, Tower, & Taylor, 2008).

Liquidity, another firm attribute, may also influence voluntary disclosure of information. The envisaged association is predicated on one hand of the argument that due to the nature of their business, listed financial services companies in Nigeria possess high liquidity levels making them more likely to disclose additional information; if not for any other reason, to show their superior ability to fulfill short term obligations to investors, regulatory authorities and lenders (Uyar, Kilic & Bayyurt, 2013). On the other hand, companies with low liquidity levels may also disclose more information in order to avoid shareholders claims and to prove that management is aware of the company's problems (Wallace, Naser & Mora, 1994; Wallace & Naser, 1995, Alsaeed,

2006). Disclosure of additional information by listed financial service companies in Nigeria may increase the extent of stakeholders' confidence for those on board and new ones due to the fact that liquidity is the bedrock of any listed corporate entity. Though additional information may likely lead to decrease in liquidity because expenses will be incurred. With this, liquidity will affect additional disclosure negatively. That is why a priori expectation shows negative or positive effect of liquidity on voluntary accounting disclosure.

Another firm-level characteristic that may influence voluntary disclosure is financial leverage. Firms which have higher debt in their capital structure are thought to be prone to higher agency costs (Alsaeed, 2006). Hence, leveraged firms have to disclose more information to satisfy information needs of their creditors (Uyar & Kilic, 2012). Disclosure of information beyond mandatory ones may influence parties involved in debt covenant and prospective ones to maintain the relationship since listed financial service companies in Nigeria are particularly highly levered. Hence, investigating whether the assertion that information disclosure may be used to avoid agency costs and to reduce information asymmetries (Inchausti, 1997) is necessary.

The number of years a firm has been in business is also likely to be a factor that influences voluntary disclosure (Singhvi & Desai, 1971). However, the extent to which a company's disclosure may be influenced by its age, will depend on which stage of development and growth it has attained (Alfaraih & Alanezi, 2011). Older firms that are well-established are likely to disclose information more than younger companies (Sejjaaka, 2003). This is based upon the arguments that new companies may encounter difficulty in making changes to comply with the requirements of the law (Abbott, Park

& Peter, 2000). Younger companies are also not likely to disclose full information about their financial results and position, because this may prove to be detrimental if sensitive information is disclosed to the established competitors. The additional proprietary information is thought to put younger companies at a competitive disadvantage (Sejjaaka, 2003). The financial services firms focused upon in this study are mainly older companies. Thus, they possess a certain ease and low cost of collecting and analyzing data. Their age also conveys upon them the presence of track records and stability in the market (Yusuf, Hassan & Mamman, 2016). Therefore, studying how this same age advantage plays out in relation to their voluntary disclosures is of interest.

Notwithstanding the earlier cited firm-specifics such as profitability, size, leverage, liquidity and age, other firm attributes exist that are likely to influence firm voluntary disclosure. One of them is utilization of forensic accounting services. Forensic accounting services have become quite popular with increases in white-collar crime and corporate corruption which have enormous costs to society. In fact, due to the inadequacy of traditional auditing system where external auditors base their tasks on compliance and substantive tests, looking at the complex nature of corporate entities today, forensic accounting services feature a lot. So much so that one of the big 4 audit firms; KPMG, created a Forensic Accounting Services Department to augment the traditional accounting system. Furthermore, because managements have in some instances, been found to use their position to satisfy their personal interest to the detriment of that of owners, investors and creditors are of the view that firms should disclose every information irrespective of whether it is mandatory or voluntary. As such, there is need to voluntarily disclose information related to forensic accounting services.

In view of this, forensic accounting services as a field of study with its services as investigation, litigation support, consultancy and fraud auditing filled a great gap in overcoming such menace. However, the recently reported case in Nigeria of police pension scam has increased demands for total disclosure (such as issues of whistle blowing, ethical standards and anti-corruption) in firms' annual reports. Thus, it is argued, will serve as quality assurance to stakeholders by incorporating forensic accounting services (Enofe, Toluwa, Fasua & Ajayi, 2016).

In addition, complex nature of listed corporate organizations where parent-subsidary, associate, joint venture or hybridization relationships exist is also an issue of concern where the use of conventional ways in running companies transactions may not suffice. It is therefore believed that incorporation of ICT may influence the extent of voluntary accounting disclosure of listed financial service companies in Nigeria. In Nigeria, for example, Union Bank Plc is among the old generation banks which due to its failure to be fully ICT compliant has lost ground to new generation banks such as Guaranty Trust Bank Plc. Information disclosure is one of the vital signals that will guarantee confidence of stakeholders and the use of ICT is imperative.

This study therefore looked at the effect of the aforementioned set of explanatory variables on voluntary accounting disclosure of listed financial services companies in Nigeria. However, study on how the use of forensic accounting services and ICT intensity influence voluntary accounting disclosure to the best of researchers' knowledge, are not been previously studied; either in relation to financial services firms' or other non-financial services firms'. The non-inclusion of the said variables in previous research coupled with the findings of Needless (1997) that developing

countries accounted for only 17.6% and 0.65% in Africa and Nigeria respectively on financial disclosure have served as impetus for this research.

1.2 Statement of the Problem

Traditionally, agency theory assumed that principal-agent relationship is characterized by a conflict between the interest of the principal and those of the agent, and that the agent will be motivated to pursue their own interest (Pontes, 1995). It is assumed according to Jensen and Meckling (1976) that information possessed by the agent is also known to the principal, but information symmetry between principal and agent is destabilized by the introduction of moral hazard. Thus, listed financial service companies in Nigeria are characterized by many interest groups in terms of ownership where some are based in Nigeria, others are foreigners. Hence, additional information will aid in overcoming the information asymmetries.

Therefore, voluntary accounting disclosure emerged as an issue of interest to investors, managers and other stakeholders (Singhvi, 1967; Singhvi & Desai, 1971; Cooke, 1989; Barako, 2007; Albitar, 2015). Managers are concerned about meeting shareholders expectation by maintaining smooth growth of the companies as a means of protecting their interest. On the other hand, stockholders are interested on how best to measure the voluntary accounting disclosure so as to maximize the investors' shares. It is therefore difficult for investors, managers and other stakeholders in general to ignore the role of voluntary accounting disclosure in listed financial service companies in Nigeria.

Considerable studies have been conducted on the effect of firm attributes on voluntary accounting disclosure particularly in developed nations and very few in

developing countries with mixed findings (for example, Needless, 1997; Chau & Gray, 2002; Hossain & Hammami, 2009; Barako, 2007; Ibrahim, 2014; Ayila, 2015). This study add to the existing literature particularly in developing nations considering the role of voluntary accounting disclosure in listed financial service companies in Nigeria, which is meant to facilitate efficient and effective dissemination of information and the increasing demand by investors for information on their subscribed shares. Though few studies in advanced economies such as Singhvi, (1967), Singhvi & Desai, (1971), and Cooke, (1989) have associated the effect of firm attributes on voluntary accounting disclosure with mixed findings. The attributes are considered significant but with the addition of forensic accounting services and information and communication technology in a study on disclosure will make the effect of voluntary accounting disclosure of listed financial service companies in Nigeria today more robust.

Looking at Forensic Accounting Services, listed financial service companies in Nigeria are complex in terms of their business activities. The number of their branches, subsidiaries, associate firms or even joint venture is issues of concern. The complex nature of these activities may give room for fraud and other financial misappropriation which is not in agreement with the stakeholders' interest. According to the rule of law, auditors are to forward report on the truthfulness and fairness of corporate activities which is based on compliance and substantive tests and the test is based on sampling. However, where there are cases of fraud, white collar crimes or corporate corruption, a thorough investigation is required. Hence, looking at the current nature of global business environment, income smoothing is an issue of concern among researchers. For this reason, professional accountant come up with Forensic Accounting Services as a

field to augment conventional auditing system in the event fraud, financial misappropriation and corrupt practices that are perpetrated. Therefore, it is expected that forensic accounting services will influence voluntary accounting disclosure of listed financial service companies in Nigeria.

ICT on the other hand may influence voluntary accounting disclosure of the firms under study. This is given the fact that traditional way of running listed financial service companies in Nigeria may no longer be seen as reality in terms of realizing the overall objective of a firm due to the complex nature of the business environment, most especially with the coming up of International Financial Reporting Standards (IFRS). As such, the use of internet connectivity is inevitable as opined by Albitar (2015) and he equally corroborated that “the recent developments in technology and communications suggests a need to pay more attention to internet sources of information”.

Moreover, maintaining traditional way of running businesses by the listed financial service firms in Nigeria will no long be feasible. This is because most of them are having foreign branches with subsidiaries, associated companies and are mandated to adopt IFRS in preparing their financial statement. The adoption of IFRS makes them to compete with their global competitors. Most of these foreign listed companies if not all are ICT inclined. Thus, this development makes it necessary for corporate entities to be ICT inclined. Financial service industry experience rapid technological changes over the past few years. This is due to the fact that considerable innovations emerged and method of delivering financial services and exchange mechanisms. As noted by Yusuf and Amosun (2016), most of the management of listed financial service industry are continually looking into their ICT Departments to improve efficiency and facilitate

game changing innovation and in the same vein lowering costs. Therefore, it is expected that ICT may influence voluntary accounting disclosure of listed financial service companies in Nigeria looking at its effectiveness in terms of speed, timely preparation of report and competing with the global business environment. Studies such as Singhvi and Desai, (1971), Ibrahim, (2014), Albitar, (2015) were conducted on firm attributes and voluntary accounting disclosure but none of them takes ICT as an independent variable and therefore it is expected that this study will fill the gap.

In Nigeria, few studies were conducted on voluntary accounting disclosure. However, the Nigerian-based studies were mostly concerned with firm attributes and voluntary segments disclosure; compliance with accounting standards disclosure such as the work of Ibrahim, (2014) and Ayila, (2015). This means that none of the studies conducted in Nigeria used voluntary disclosure as dependent variables and considered Forensic Accounting Services and ICT as explanatory variables to the best of my knowledge.

Furthermore, the period of the studies conducted in Nigeria on firm characteristics and voluntary accounting disclosure terminate at 2014. It is evident however that a lot of developments have taken place in Nigeria which affect listed financial service industry from 2013, after the financial crisis of 2009-2010 that caused an unprecedented crash in the Nigerian financial system. Among the developments that have taken place are the emergences of IFRS in 2012, Freedom of Information Act, Financial Reporting Council of Nigeria, and Treasury Single Account in 2012. Hence, listed financial service industry have a lot on their plates such as emerging competitors, shifting demographics and rising customer expectations. Voluntary accounting

disclosure will assist in overcoming these problems due to the peculiar and sensitive nature of the firms as well as the reform they have continued to undergo calls for special attention. So far, the sector has attracted little or no research effort with respect to voluntary accounting disclosure. This study is an attempt to fill these gaps that have been identified.

Therefore, the importance of voluntary accounting disclosure cannot be overemphasized. For instance, disclosing detailed explanation on how management spends money on corporate social responsibility (CSR) is an issue of concern. This will make stakeholders especially investors to be at ease on the total cost of CSR reflected on the comprehensive income statement. This is in view of the fact that management may hide under such type of expenses to smooth the companies' income. Moreover, disclosure of risk management activities such as credit risk, liquidity risk and market risk in which managing this type of risk is considered as fundamental in listed financial service firms in Nigeria. For example Savannah Bank of Nigeria Plc, Enron, WorldCom are found to be bankrupt and were asked to liquidate their entity which emanate as a result of poor risk management.

Thus, failure to provide full explanation on issues like this may cause conflict between principal and agent since ab initio they were delegated to serve the interest of investors by proper management of resources. Therefore, information disclosure is one of the vital signals that will guarantee confidence on stakeholders. This is due to what happened to some companies that failed like Enron, WorldCom, Savanna Bank in case of Nigeria.

1.3 Research Questions

The central question this study is set to answer is what characteristics define firms that voluntarily disclose more information in the financial statements? However, questions that guided the study are:

- i. what is the effect of profitability on voluntary accounting disclosure of listed financial service companies in Nigeria?
- ii. how does liquidity affect voluntary accounting disclosure of listed financial service companies in Nigeria?
- iii. to what extent does leverage affect voluntary accounting disclosure of listed financial service companies in Nigeria?
- iv. what is the effect of firm size on voluntary accounting disclosure of listed financial service companies in Nigeria?
- v. does firm age affect on voluntary accounting disclosure of listed financial service companies in Nigeria?
- vi. to what extent does forensic accounting services affect voluntary accounting disclosure of listed financial service companies in Nigeria?
- vii. how does information and communication technology affect voluntary accounting disclosure of listed financial service companies in Nigeria?

1.4 Objectives of the Study

The main objective of this study is to examine the effect of firm attributes on voluntary accounting disclosure of listed financial service companies in Nigeria. The specific objectives are to:

- i. investigate the effect of profitability on voluntary accounting disclosure of listed financial service companies in Nigeria;
- ii. determine the effect of liquidity on voluntary accounting disclosure of listed financial service companies in Nigeria;
- iii. evaluate the effect of leverage on voluntary accounting disclosure of listed financial service companies in Nigeria;
- iv. examine the effect of firm size on voluntary accounting disclosure of listed financial service companies in Nigeria;
- v. assess the effect of firm age on voluntary accounting disclosure of listed financial service companies in Nigeria;
- vi. determine the effect of forensic accounting services on voluntary accounting disclosure of listed financial service companies in Nigeria; and
- vii. examine the effect of information and communication technology on voluntary accounting disclosure of listed Financial Service Companies in Nigeria.

1.5 Research Hypotheses

In line with the objectives of the study, the following hypotheses have been formulated in null form. These are:

- H₀₁: Profitability has no significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria;
- H₀₂: Liquidity has no significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria;
- H₀₃: Leverage has no significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria;

- H₀₄: Firm size has no significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria;
- H₀₅: Firm age has no significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria;
- H₀₆: Forensic Accounting Services have no significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria;
- H₀₇: Information and Communication Technology have no significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria.

1.6 Scope of the Study

The study examined the effect of firm attributes on voluntary accounting disclosure of listed financial service companies in Nigeria which comprises 55 listed companies on the Nigerian Stock Exchange as at 31st December, 2016. The study covered a period of ten (10) years (2007 to 2016). This period was chosen because it was the time when different pronouncements and standards were made such as IFRS in 2012, FRCN Act 2011, Treasury Single Account in 2012, Freedom of Information Act 2011. Listed financial service companies as part of their business engaged in providing financial services such as accepting deposit, issuing loan, insurance services to corporate and individual as well as mortgage careers. This is due to the fact that financial service companies constitute deposit money banks, insurance companies, other financial institutions, micro finance banks and mortgage careers. Selections were performed based on the availability of annual reports and accounts of listed financial service companies in Nigeria.

1.7 Significance of the Study

The study is motivated by the expected contribution practically and theoretically to stakeholders as well as basis for policy formulation. The explanatory variables used, will signal how vital disclosing such voluntary information is, particularly some of the key indicators in their companies like forensic accounting services and ICT. The appropriate application of the recommendations of the study would result to decision to be taken by the industry's management.

A study of this nature will aid operators and policy makers in listed financial service companies assess the corporate accounting disclosure behaviour, explaining why firms adopt certain disclosure strategies. This will equally signal the need to amend the mandatory disclosure due to the importance of additional information.

Practically, the findings of the study would be of immense benefits to bankers, accountants, financial analyst, financial advisors, financial consultant, stock brokers, regulators, government and other professionals. This is because it would provide a useful guide by providing them with information on voluntary basis when carrying out their consulting services to their clients, prospective investors and other stakeholders. Other practical importance can be in the following areas:

This study is a pioneering effort in evaluating the effect of firm attributes considered on voluntary accounting disclosure of listed financial service companies in Nigeria. It would assist the financial service industry regulatory authorities in knowing the various voluntary disclosure items and how important they are as firm attributes. This will aid them to take action when preparing financial statement. Also, knowing how firm attributes influence voluntary accounting disclosure will assist to improve

performance of financial service companies in Nigeria. This will give them courage to effectively monitor preparation of financial statement with the aim of improving the overall performance.

Theoretically, students and researchers in the area of accounting, finance and economics are expected to benefit immensely from the findings of this study, as the detail information provided on literature of firm attributes and voluntary accounting disclosure of financial institutions will serve as a guide for further research. This study provides empirical evidences on the effect of firm attributes on voluntary accounting disclosure of listed financial service companies in Nigeria. Other researchers could build on the findings of this study in performing similar studies within the Nigeria framework with larger sample, different explanatory variables, different domain and even measurement.

Study of this nature in a country like Nigeria will be of interest due to many justifications. In recent time, Nigeria enforces some major structural reforms and fiscal policies with the intention to integrate the Nigerian economy into the globalized world. With these changes, corporate organization may find this work vital as their activities would be in tandem with global best practices. As such, voluntary disclosure will be of great importance to listed financial service companies in Nigeria. For instance, integrating reporting practices that is based on International Financial Reporting Standards (IFRSs) guidelines. Moreover, Financial Reporting Council of Nigeria (FRCN) Act, 2011 has been passed into law on 7th June 2011 so as to promote transparency in financial reports. The signing of Freedom of Information (FOI) Act into

law on May 28th 2011 with 28 sections was also made to protect any whistle blowers and to encourage firms to provide extensive disclosure (Monday & Nancy, 2016).

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter discusses related literature, empirical studies and underpinning theories in relation to voluntary accounting disclosure, Profitability, Liquidity, leverage, firm size, firm age, Forensic Accounting Services and information and communication technology.

2.2 Concept of Voluntary Accounting Disclosure

Sudden failure of large corporate entities globally has cast doubts on stakeholders' confidence on information disclosed by the entities. Questions were raised about the quality of financial information disclosed (Price Water House Coopers, 2009). Hence, a study of this nature in the Nigerian financial institutions is not out of place but a necessity.

Mandatory and voluntary disclosure in the financial statement are the two channels of corporate disclosure by which managers communicate private information with capital markets as evidenced by stock price as well as liquidity changes associated with the two types of disclosures (Balakrishnan, Billings, Kelly & Ljungqvist, 2012). Understanding this relation is the first step in addressing the long-standing research question on what economic rationale justifies regulating corporate disclosure and whether voluntary disclosure obviates the need for reporting regulations.

Disclosure of an item is mandatory if it is required under a regulatory regime. It is a requirement according to Section 331 of Companies and Allied Matters Act (CAMA) 1990 as amended in 2004. Also Statement of Accounting Standard (SAS) 2 which is on Information to be disclosed in financial statements. However, International

Accounting Standards (IAS) 30 which is on disclosure in the financial statement of banks and similar financial institutions. Mandatory items, therefore, consist of all items that must be disclosed in annual corporate reports, based on the requirements of International Financial Reporting Standards (IFRSs), Companies and Allied Matters Act 1990 (CAMA'90) as amended in 2004 in case of Nigeria and relevant regulatory guidelines. In this category, they are classified as common to all firms immersed in the same environment. Owusu-Ansah, (1998) and Sejjaaka, (2003 and 2004) assert that corporate mandatory disclosure implies the presentation of a minimum amount of information in corporate reports, sufficient to permit a reasonable evaluation of the relative risks facing by stakeholders. Such stakeholders are of the view that information that is material is enough for them otherwise it will be overloaded to the extent that material information might not be looked at (Sejjaka, 2003).

Voluntary disclosure on the other hand, is that discretionary release of financial and non-financial information through annual reports over and above mandatory requirements (Barako, Hancock & Izan, 2006). It is the information made public through the firms' free choice (Adina & Ion, 2008 as cited in Albertoe, 2010). Such information includes social and environmental activities as well as future projects embarked upon by the organization for instance items across subjects, such as corporate information, corporate strategy, acquisitions and disposals, research and development, future prospects, corporate governance, financial review and capital market information (Meek, Roberts, & Gray, 1995; Chau & Gray, 2010; Haniffa & Cooke, 2002; Akhtaruddin, Hossain, Hossain & Yao, 2009, Yuen, Liu, Zhang & Lu, 2009). Owners

might be interested in knowing every activity of the firm irrespective of whether it is provided by the law or not.

The aim of general purpose annual reports is to provide information to a number of users to permit informed decision (Cooke, 1989). Regulations regarding information contents are stated which is considered as mandatory, but disclosures beyond legal requirements are voluntary. Ahmed and Schneible, (2007) are of the view that disclosure in excess of requirements (which is at will) by management to provide accounting and other information is referred to as voluntary disclosure. Abdulrahman, (1998) opines that the disclosure is seen as any type of information published via a corporate annual report that is relevant for stakeholders to make decisions and judgments about the company.

Disclosure simply means transferring and presenting economic information related to the financial status and performance of firms, whether financial or nonfinancial, quantitative or in other forms. Zourarakis, (2009) asserts that inadequacies of the traditional accounting systems to include the requirements of firms have resulted in an information gap between managers and stakeholders. A possible bailout for this menace is the provision of voluntary disclosures through the annual reports of the firms, which will eventually reduce this gap.

According to Qiu, Shaukat and Tharyan, (2016) voluntary accounting disclosure refers to information made public via a firm's free choice. The information could be affected by culture, social, economic or behavioural characteristics that are specific to a given firm. Francis, Nanda and Olsson, (2008) states that theoretically, managers disclose their private information because rational market participants would otherwise

interpret nondisclosure as unfavorable information and consequently tarnish the value of the firm's assets. The manager's disclosure mitigates the adverse selection problem in capital markets by reducing information asymmetry between the principal and agents, enabling greater liquidity and lowering the firm's cost of capital. Furthermore, Tian and Chen, (2009) corroborate that compulsory disclosure means relevant laws and rules, such as firms Law, Securities Law, Accounting Rules, and regulatory agencies' pronouncement.

On the contrary, Tian and Chen, (2009) argue that voluntary disclosure means, all information provided in the financial reports except for compulsory disclosure. Listed companies disclose information voluntarily for the sake of investors, companies' image and accusation risks avoidance. As such, voluntary disclosure represents the excess of information that depends on the free choice of management decision and outside market factors. Hawashe, (2014) view voluntary accounting disclosure as information by management in the corporate annual report at their free choice.

Unuagbon and Oziegbe, (2016) prove that voluntary accounting disclosure is information provided out of legal context in which sound investment decision can be made which is the goal of all disclosure requirement. Unuagbon and Oziegbe, (2016) however, argue that the mandatory disclosure is ruled at national, regional or even global level through professional organizations or government authorities, being practised by all the firms regardless of size, judicial, fiscal or national accounting system. On the other hand, voluntary disclosure comes to complement the mandatory reporting process that often seems to be inadequate for satisfying users need. Traditional financial reporting mostly provide historical information, moreover, in

certain industries, conventional accounting and reporting strategies may not be sufficient to accurately represent the complexity of a firm's operations.

Latridis and Alexakis, (2012) corroborate that in most cases, firms are in a haste to disclose positive voluntary accounting information due to the fact that it will aid investors to make informed decisions and judgments. To Rouf, (2011), voluntary accounting disclosure is an information released at the discretion of the company. He opines that the extent of voluntary disclosure depends upon the nature of the society, behavioral and economic factors. The items to disclose he adds can be historical, current and predictive items.

Khan, Chand and Patel, (2013) view corporate voluntary accounting disclosure as an increased disclosure of all relevant information apart from mandatory information as it protects the interest of minority shareholders and ensures transparency of company's information to its interested parties. As noted by Meek, Robert and Gray, (1995) disclosures in excess of requirements in annual reports and other media is deemed vital by the firm management for an effective decision-making by the users of the financial reports. But, due to the separation of ownership and control, the incentive for the management to provide additional disclosures decreases. In a more recent study, Samaha, Dahawy, Hussainey and Stapleton, (2012) assert that few studies examine disclosure practices of companies in developing economies such as Maimako and Ayila, ,(2015), Ayila, (2015), Ibrahim, (2014).

Similarly, Jung and Kwon, (1988) perceive voluntary disclosure as any information disclosed in addition to mandatory disclosure. On the other hand, voluntary disclosure is defined as "free choices on the part of company managements to disclose

accounting and other information deemed relevant to the decision needs of stakeholders (Abdelkarim, Shahin & Arqawi, 2009). Moreover, Salteh, Nahandi and Khoshbakht, (2011) document that corporate voluntary accounting disclosure as information selected by firm unit including financial and non-financial information additional to those regulated by judicial authorities, rule, and regulations of financial reporting. In other words, it is a reflection of information selected by business over and above information required by law which is regulated by qualified authorities. Binh, (2012) perceives companies' voluntary disclosure as information disclosed in excess of the needful, represents free choices on the part of managers to provide information to stakeholders. It is disclosed to satisfy the users' needs since mandatory information seems to be inadequately supplied.

In his view, Cooke, (1989) the whole disclosure of the firm's condition is important for making a decision by the users of accounting information or those who usually make the decision on the information disclosed in the yearly report such as financial analyst. Voluntary information disclosed, besides the mandatory financial and nonfinancial information is to enhance the confidence and awareness of investors about firms' future. The main motive behind voluntary accounting disclosure is to clear the hesitation of investors who have less knowledge about the firm to make a decision. This voluntary information disclosed in annual reports is a great source of attraction for the researchers and stakeholders. The annual report is the core basis of voluntary information.

Furthermore, Barako, Hancock and Izan, (2006) view voluntary accounting disclosure as a discretionary release of financial and non-financial information via

annual reports over and above the mandatory requirements. Juhmani, (2013) comprehends voluntary disclosure as information that consists of voluntary publications regarding their content, disclosed in a mandatory vector (the annual report) and which are done in the chronological sequence provided by law. Belgacem and Omri, (2015) elaborate that quality of voluntary disclosure contained in the financial statement is in the heart of financial modern problems and is vital to the proper functioning of stock exchange markets.

In the same vein, Karami, Hajiazimi and Attaran, (2012) confirm that mandatory or voluntary disclosure is critical to the proper functioning of capital markets. Therefore, a voluntary disclosure is mainly caused by agency problem (Kowalewska, 2015). To Hassan and Martson, (2010) voluntary disclosure is any information revealed in excess of mandatory disclosure. As noted by Verrecchia, (2001) as cited in Clemente and Labat, (2009) one way to succeed in information asymmetry reduction is for the firm to engage to the highest level of public disclosure (mandatory and voluntary). Voluntary disclosure according to Uyar, Kilic and Bayyurt, (2013) allows management the freedom to choose which information to disclose.

Accordingly, Filsaraei and Azarberahman, (2016) assert that the main reason for the emphasis on voluntarily accounting disclosure and clarification is that it is an infrastructure for protecting shareholders' gain. The approaches of complete disclosure along with the transparency in financial reporting can cause confidence, secure conditions, and increase the assurance about supporting the investors' benefits. Thus, based on the foregone, this study adopts the definition of Tian and Chen, (2009) that voluntary accounting disclosure refers to information (financial and non-financial)

disclosed by management and is subject to their discretion. Different disclosure checklists were used to quantify the extent of voluntary accounting disclosure.

Some scholars such as Cooke, (1989), Robbins and Austin, (2013), Ibrahim, (2014) use the ratio between expected and actual voluntary disclosure. The appropriateness of applying a variable scale for measuring the extent of information disclosure is pointed out by Moore and Buzby, (1972). Furthermore, a dichotomous approach for assigning disclosure scores to certain type of disclosure items has been used by other researchers such as Buzby, (1974; 1975) and Firth, (1979) as first introduced by Cerf, (1961). The variable scale is on the basis of whether the disclosure of information is dichotomous, qualitative or qualitative-quantitative.

Therefore, some studies used a number of words or qualitative-quantitative in measuring voluntary accounting disclosure. For instance, for a qualitative information, it is a function of number of words contained in the disclosure. In this regard, Copeland and Fredericks, (1968) buttress this as a viable tool of evaluating financial statement disclosure. They argue that “an objective criterion might be the number of words used to describe a particular purpose....”. This tool was used by Wiseman, (1982). Copean and Fredericks, (1986) and Buzby, (1974; 1975). The disclosure score for qualitative items according to Robbins and Austin, (1986) are: (i) zero if no disclosure. (ii) 25% if 1-10 words. (iii) 50% if 11-30 words, (iv) 75% if 31-60 words and (v) 100% if over 61 words.

However, the extent of information scores for qualitative-quantitative is based on number of words in the disclosure and whether quantitative information was in detail or summary. The hybridization of these two components represents the extent of

disclosure score. As such, Robbins and Austin, (1986) point out that 25% score was assigned for 1-30 words while a 50% score was assigned for over 30 words. Also, if detailed numerical data were present, the score was increased to by 50% and for summary numerical data the score was increased by 25%. Buzby, (1974; 1975) and Wiseman, (1982) used a similar scoring methodology.

According to Cooke and Wallace, (1989), financial disclosure is an abstract that cannot be measured directly. They corroborate that a suitable proxy such as index of the disclosure can be adopted to gain insight into the level of information disclosed by firms. The number of items included on the scoring sheet in previous studies varied from a minimum of 11 items (Ibrahim, 2014) to a maximum of 530 (Craig & Diga, 1998).

It is worthy to note that there are different approaches to constructing the disclosure index. Firstly, a self-constructed disclosure index could be used to measure the level of corporate information disclosure. Yuen, Liu, Zhang and Lu, (2009) adopt this approach and constructed their checklist using 51 voluntary disclosure items. Secondly, a researcher can adopt an existing index and make some modifications to construct an index that is suitable for the researcher's context and environment. This approach is adopted by Hossain and Hammami, (2009) and Qu, (2011). Thirdly, a disclosure index developed by another organization such as rating agency or professional association. For example, Jain, Keneley & Thomson, (2015) utilize the disclosure index developed by the Minority Shareholder Watchdog Group (MSWG) in Malaysia to examine the level of voluntary disclosure of Malaysian publicly listed companies.

There are two important and contentious issues in previous researches on the scoring of disclosure items. The issues are whether the disclosure items should be weighted or unweighted. Barako, (2007) argues that both approaches have been criticized. The weighted approach may introduce a bias towards a particular user-orientation. The unweighted approach dwells on the fundamental assumption that all items are equally important, which may not necessarily be true. According to Umoren and Peace, (2011), the major argument against weighted approaches is that one class of users will attach different weights to an item than another class and that the subjective weights of user groups will average each other out.

2.3 Concept of Firm Attributes

Hassan and Bello, (2013) perceive firm attributes as those incentive variables that relatively sticky at company's level across time. Firm attributes can be defined as the wide varieties of information disclosed in the corporate annual reports that serve as the predictors of assessing firms' performance (Lang & Lundholm, 1993). Firm attributes can also be defined as the behavioral pattern of company's operation which can enable them to achieve their objectives throughout the period of their operations. Similarly, firm attributes refer to the various accounting information reported by firms in their financial statements for a particular period which can send a signal to various stakeholders in relation to their performance (Hassan, 2012). Firm attributes vary from one firm to another. Company's attributes can be determined based on the relevant information disclosed on its financial statements for a particular accounting year (Stainer, 2006).

Empirical studies have been conducted on the effect of firm attributes on voluntary accounting disclosure of business entities in the developed and developing countries. Firm attributes seem to play a vital role in determining the overall activities of a firm. In the same vein, Dean, Menguc and Myers, (2000) are of the view that firm attributes are essential in explaining the overall success of a business. Thus, firm attributes are those factors disclosed in the financial statement of a firm which determines its success or failure. The disclosure can be financial or non-financial. Therefore, firm attributes to use in this study are profitability, liquidity, leverage, firm size, firm age, forensic accounting services and information and communication technology.

2.3.1 Concept of Profitability

Profitability, which is frequently used as a measure of financial performance, is one of the main objectives for the existence of many companies. Profit is an essential prerequisite for any company operating in today's increasingly competitive and globalized market. In addition, profit does not only serve as a means of attraction to investors; it also improves the level of solvency, and thus, strengthens consumers' confidence (Ismail, 2013).

Profitability is fundamental to both accounting theory (that is, a set of basic concepts, assumptions and related principles that explain and guide accountants' actions in identifying, measuring and communicating economic information) and economic theory (that is, a theoretical construct representing economic process by a set of variables and a set logical and or quantitative relationship among them). Since it is an offshoot of income, it also has its foundation from the famous Hicksian concept of

income. Using the Hicksian approach, profit can be explained as the maximum value which can be consumed in a given period of time without tampering with “well-offness” (Grautier, Underdow & Morris, 2011). This definition has been staunchly supported by economists. It provides a sound basis for the appreciation of what actually constitutes income and hence profit.

Profit can also be conceived as the residual arising from netting revenue realized against cost consumed (Igben, 2009). Again, this definition suffers general acceptance as economists do not subscribe to what they call ‘arbitrary allocation of cost’ to realized revenues as accountants do. Therefore, the term profitability can be blended to different dimensions. Devi and Devi, (2014) define profitability as the level to which an organization can successfully and efficiently make the most of its obtainable funds and assets, and alter them into outstanding profit. This forms the basis for boosting the income of employees, providing better quality products for customers, and having better environment-friendly production units. Also, more profits precipitate more future investments, thereby creating more employment opportunities and enhancing the income of people.

However, profitability depicts the financial success of a venture. It is used to refer to the ability of an entity to make a profit. Profit is what is left of the revenue a business generates after it pays all expenses directly related to the generation of the revenue, such as producing a product, and other expenses related to the conduct of the business’ activities. According to the Institute of Chartered Accountants of Nigeria – ICAN, (2014), profit refers to the total income earned by the enterprise during the specified period of time, while profitability refers to the operating efficiency of the

enterprise. It is the ability of an enterprise to make a profit on sales. This also implies the ability of an enterprise to get sufficient return on capital and employees used in the business operation. To the financial manager, profit is the test of efficiency and measure of control (Okwo, Ugwunta & Agu, 2013). To the owners, it is a measure of the worth of their investment; to the creditors it is used as the margin of safety, to the government it is a measure of taxable capacity and a basis of legislation and to the country profit is an index of economic progress, national income generated and the rise in the standard of living (Okwo, Ugwunta & Agu, 2013).

Profitability is commonly measured using the following ratios: return on assets (ROA), return on equity, gross margin, operating margin, and return on capital employed (Davis, Schoorman, Mayer & Tan, 2000 and Hassan & Farouk, 2014). ROA is mostly adopted, in view of the fact that it is more encompassing than other profitability variables and is the proxy commonly used by researchers for measuring performance. The ROA indicator expresses the company's ability to generate profit as a consequence of the productive use of resources and efficient management. Therefore, this study sees profitability as return realized from the utilization of asset, the return of which is the excess of revenues over expenses, tax inclusive as conceptualized by Devi and Devi, (2014).

2.3.2 Concept of Liquidity

Although liquidity is not a new concept in accounting and finance field, it has no universally accepted definition. This is largely due to the fact that liquidity arises from different economic perspectives for it being the engine of any business (Marozva, 2015). Adler, (2012) assert that liquidity can be defined in the context of how easy one can

obtain funding to trade a security, the former being called market liquidity and the latter being funding liquidity. In this manner, liquidity is seen as a cost, whose effect on return on assets has to be assessed.

Taking bearing from the banking sector, Marozva, (2015) posits that liquidity is simply the ability of a bank to maintain sufficient funds and or reserves to pay for its maturing obligations. The study seeks to link liquidity to the firm's ability to immediately meet cash, cheques, other withdrawal obligations and legitimate new loan demand while abiding by existing reserve requirements. This definition is insightful, however, it holds much more relevance in the banking sector and other relevant sector than industrial goods firms. This is because industrial goods firms are not under obligation to abide by predetermined reserve requirements. This limitation is also inherent in the definition proffered by Ibe, (2013) who contends that liquidity is a financial term that means the amount of capital that is available for investment.

Nweazeaku, (2006) defines liquidity as the degree of convertibility to cash or the ease with which any asset can be converted to cash. This is essential to meet short-term obligations of an organization. Umobong, (2015) defines liquidity as the ability of a firm to meet its short-term obligations using its most liquid assets (cash, receivables). Liquidity is the ease with which a company can pay its bills and liabilities over the next year, especially if it must convert its assets into cash in order to do so. The definition, which was earlier conceived by Saleem and Rehman, (2011) that perceived liquidity as a measure of the short-term solvency of the business. It is calculated as the ratio of current assets to current liabilities. Accordingly, Ehiedu, and Chukwunweik, (2014) pointed out that liquidity is the ability for the company to have sufficient capital in its

account or cash deposited by individuals and portfolio which is any collection of financial assets such as stock bonds and cash it may be held by individual investor and or managed by professionals. Therefore, liquidity simply refers to the ability of the firm to meet short term obligation as noted by Ibe, (2013) and is measured as a ratio of current assets to current liabilities and sees liquidity as a measure of the short-term solvency of the business. It is calculated as the ratio of current assets to current liabilities. In financial service companies, liquidity is measured using loan to total deposit.

2.3.3 Concept of Leverage

There seems to be a common consensus in the literature that leverage has to do with the use of debt capital, by a firm in relation to equity capital. Syed, (2013) describes leverage as the extent to which a business or investor is using borrowed money. This means that leverage shows the extent to which the total assets of the company are funded by loans. It is necessary to state that an increase in the ratio ensures an increase in the amount of the business's financing sources. The negative aspect of it is that it also leads to lesser a degree of independence by a firm and threatens its financial solvency. To Ayila, (2015), leverage is the degree to which an investor or firm utilizes borrowed money in its activities. On the other hand, Mohammad, (2014) explains that leverage is referred to as the capacity of an organization to use borrowed money. This definition seeks to imply that leverage is the extent of use of fixed interest securities by an organization.

Leverage is measured as the ratio of total debt to total assets. This is in alignment with the measurement basis of Hassan and Bello, (2013) who measure

leverage as the ratio of total debt to total assets. This study adopts the definition offered by Syed, (2013) and concludes that leverage involves extent of use of borrowed money in financing a firm and is measured as total debt to total assets. Jensen and Meckling, (1976) as cited in Ogwe, (2014) suggests that agency costs are higher for companies with more debt in their capital structure. Therefore, it will be useful for such companies to disclose more voluntary accounting data in order to decrease information asymmetry and monitoring costs. Ho and Wong, (2001) stipulate that when a firm is closed to debt covenants, it discloses more optimistic information in order to signal future positive perspectives for both investors and debtors. As such, the level of disclosure is positively related to the leverage ratio. They argued that companies with higher levels of debt financing will be subjected to more scrutiny than firms that mainly depend on equity financing. Consequently, it is predicted that higher leveraged firms tend to disclose more information in order to lower different costs of debt.

Leverage is measured as the ratio of debt to total assets. This is in alignment with the measurement basis of Lobos & Szewczyk, (2013) who measure leverage as the ratio of total debt to total assets. It can also be measured as total borrowed money in financing firm as used by Syed, (2013). This study adopts the definition offered by Lobos & Szewczyk, (2013), Hassan & Bello, (2013) and concludes that leverage involves total debt to total assets.

2.3.4 Concept of Firm Size

Ayila, (2015) asserts that firm size is represented by total assets influences disclosure due to the fact that large firms usually operate over wide geographical areas and deal with multiple products and have several divisional units. They are likely to

have a well-built information system that encourages them to track all financial and non-financial information for operational, tactical and strategic purposes. Among such information system is voluntary accounting disclosure which may have a significant effect on firm size.

McKinnon and Dalimunthe, (1993) and Schipper, (1991) note that bigger listed companies are in a better position to disclose more information in order to win public mind in view of the fact that none disclosure may be perceived as a signal of bad news which may influence stakeholders decisions. According to stakeholder theory, firm size is an insight that as the firm becomes bigger, the number of stakeholders will equally assume to be higher than before (Amran, Bin & Hassan, 2009). Firm size can be seen as a reflection of political cost theory due to the fact that bigger companies capture the interest of public and government agencies. As such voluntary accounting disclosure could be a way to which public and government analysis could be enhanced as highlighted by Raffournier, (1995). For this reason, smaller firms disclose less voluntary information. Different measures have been used by scholars such as total assets, sales, market capitalization, number of employees.

2.3.5 Concept of Firm Age

Company age as well has been assessed in different studies (Owusu-Ansah, 1998; Akhtaruddin, 2005, Alsaeed, 2006) even though some studies take it as a control variable. Older companies are more likely to disclose information than new ones, because of the ease and low cost of collecting and analyzing data, the presence of track records and stability in the market. Moreover, Camfferman and Cooke, (2002) suggest that age of a company should be investigated by future studies. The extent of a

company's disclosure may be influenced by its age, which is a stage of development and growth (Owusu-Ansah, 1998; and Alfaraih & Alanezi, 2011). Older firms that are well-established are likely to disclose more than younger companies (Sejjaaka, 2003). This is based upon arguments that new companies may encounter difficulty in making changes to comply with the requirements of the law (Abbott, Park & Pater, 2000). Owusu-Ansah, (1998), Sejjaaka, (2003) further opines that the competition argument proposes that young companies are not likely to disclose full information about their financial results and position. This may prove to be detrimental if sensitive information is disclosed to the established competitors due to the fact that younger companies suffer competitive disadvantage through early disclosure of proprietary information.

To Ibrahim, (2014), the age of a firm has been identified in previous studies as firm attributes having a relationship on the quality of voluntary accounting disclosure practice. Hence, firm age has been often seen as an explanatory variable for voluntary accounting disclosure. Firm age based on this study is the number of years since incorporation. Therefore, firm age is measured as number of years since incorporation or number of years from the time when it was listing. Notwithstanding, Yusuf, Mamman and Shehu, (2016) suggest that Forensic Accounting Services and ICT should be investigated by future studies as their importance are well discussed in the background of this study. This study adopts the definition by Alfaraih & Alanezi, (2011) which is the total assets owned by the corporate entity.

2.3.6 Concept of Forensic Accounting Services

Nowadays, different definitions have been given to describe Forensic Accounting Services. According to Lucy, Okoh and Nnaemeka, (2016), Forensic

Accounting Services can be called investigative accounting or forensic audits which are seen as a new field in accounting, especially in Nigeria and borne out of the need of ensuring quality assurance of annual reports. Joshi, (2003) ascribes the pioneer of Forensic Accounting Services to Kutilya, the first economist to openly recognize the need for accountants to tender evidence in the court. Pouloubet, (1946) as cited in Kasum, (2009) coined the word "Forensic Accounting Services" but Crumbley and Apostolou, (2007) assert that Forensic Accounting Services can be traced to 1817 court decision where a young Scottish accountant issued a circular advertising his expertise in arbitration support in 1824 while Pouloubet was probably the first to publish the phrase "Forensic Accounting Services" after his essay presentation in 1946 "Forensic Accounting Services: Its Place in Today's Economy". By the late 1940s, Forensic Accounting Services had proven its value during World War II. However, formalized procedures took place in the 1980s when major academic studies in the field were published (Rasey, 2009). Okoye and Gbegi, (2013) are of the view that Forensic Accounting Services is a field that is growing rapidly in the accounting profession. It describes the involvement that results from actual or anticipated dispute or litigations.

Forensic Accounting Services to Okoye and Gbegi, (2013) means evidences presented for use before the court of law or crime solving as noted by Lucy, Okoh and Nnaemeka, (2016). As such, Forensic Accounting Services is an investigative pattern of accounting used to determine as to whether an individual or corporate organization has been involved in any illegal financial activities. Professional Forensic Accountant may work for government or public accounting firm. According to Oyier, (2013), Forensic Accounting Services refers to the use of investigative techniques, integrated with

accounting and business expertise, to bring out information and opinions for justification in a court of law and for use by expert witnesses. Dhar and Sarkar, (2010) corroborate that; Forensic Accounting Services can be seen as the application of accounting rules and techniques to legal problems. It demands to report where fraud is established and the report is considered as justification in the court of law. The forensic accountants conclude, calculate values and identify irregular patterns or suspicious entity's transactions by critically analyzing the financial information. It provides an accounting analysis to the court for resolution in certain cases and it also provides the courts with justification on the fraud that has been committed (Koh, Arokiasamy & Suat, 2009). This means Forensic Accounting Services may play a vital role in detecting and reducing accounting frauds in the listed financial service companies and Mutua, (2014) prove that quality influences greater efficiency, higher productivity, and high-quality goods and services.

Kasum, (2009) defines Forensic Accounting Services as the application of specialized skills to prove evidence of the economic transaction. Similarly, Enofe, Toluwa, Fasua and Ajayi, (2016) define Forensic Accounting Services as an integration of accounting, auditing and investigation skills. Ramaswamy, (2011) corroborates that Forensic Accounting Services is an analysis concerning accounting that can uncover possible financial reporting manipulations that are suitable for presentation before the court of law. Forensic Accounting Services engages in detecting and investigating frauds in financial reporting. In the same vein, Howard and Sheetz, (2006) perceive it as a process of summarizing, interpreting and presenting complex financial related issues in a court of law as an expert. According to Keshi, (2010), Forensic Accounting

Services is the hybridization of accounting, audit and investigative skills. It offers an accounting analysis that is best suitable to the court which will form the basis for debate, discussion, and dispute resolution.

However, Bhasin *et al*, (2012) as cited in Enofe, Toluwa, Fasua and Ajayi, (2016) notes that the scopes of Forensic Accounting Services incorporate assessment of damage caused by auditors negligence, fact finding to see if an embezzlement has taken place, in what quantum as well as whether criminal proceedings should take place, collection of evidence in a criminal proceeding and computation of current and non-current assets values. Kristic, (2009) is of the view that for the scope of Forensic Accounting Services to excel, the forensic expert must have sound knowledge of accounting and auditing, the developed capability of good communication-verbal, written and investigative, independence and a considerable degree of knowledge about usage of information technology advancement in accounting and auditing procedures. Forensic Accounting Services investigates information beyond mere observance of mandated financial reports but goes further to checkmate the underlying facts that could be tendered as justification even in the courts of law (Lucy, Okoh & Nnaemeka, 2016).

Claire and Jude, (2016) opine that Forensic Accounting Services is simply the process of interpreting, summarizing and presenting complex financial issues, clearly, succinctly and factually often in a court of law as an expert witness. Therefore, Forensic Accounting Services is suitable for legal view suggesting the highest level of assurance and including the now generally accepted connotation of having been arrived at a scientific fashion (Crumbley, 2003). Forensic Accounting Services as pointed out by Modugu and Anyaduba, (2013) is the tripartite practice of using accounting, auditing,

and investigative skills to help in legal matters. It is a specialized field of accounting that describes involvement that results from actual or anticipated disputes or litigation. Enofe, Okpako and Atube, (2013) note that Forensic Accounting Services has been pivotal in the company's agenda after the financial reporting menace which took place in some corporate organization around the world such as Enron and Worldcam.

According to Anwar and Ahmed, (2008), as cited in Islam, Rahman and Hossan, (2011) corruption poses to destroy the morality of our society and is the number one problem of the country. To them, Forensic Accounting Services can be perceived as the accounting analysis that can trace possible fraud, which is suitable for presentation in court of law as justification. Such analysis will constitute the basis for discussion, debate and dispute resolution. A forensic accountant, however, uses his skills in accounting, law, investigative auditing, investigation, and criminology to uncover issues related to fraud, find reasons and present it in court if required. Forensic Accounting Services as corroborated by Rayaana, Samsudin, Che-Ahmed and Popoola, (2016) as the use of accounting skills and investigative knowledge for the sake of ascertaining, recording, evaluating, interpreting, and communicating important information on complex business issues so as to be able to resolve legal issues. To Crumbley, Heitger and Smith, (2005) the concept of Forensic Accounting Services is a thorough and complex setting in which an accountant, in his professional independent judgment, forms a presentation at such a high level of reliability, which it can serve as a justification in legal proceedings conducted.

Forensic Accounting Services involves an investigative style of accounting used as to determine whether an individual or corporate organization has engaged in any

illegal financial activities. As demonstrated by Majid, Basri, Mohammed & Ahmad, (2016), Forensic Accounting Services is an area of specialization being an instrument of the provision of information that is meant to be used as reasons, especially for legal purposes. They added that forensic accountants are to quest and document financial fraud of white-collar crimes, such as embezzlement and investigate allegations of fraud, estimates losses, damages and assets recoveries and thorough analyses of a complex financial transaction.

Imoniana, Antunes, and Formigoni, (2013) argue that it is difficult to conceptualize Forensic Accounting Services without comparing it with auditing, mainly because auditing has been used to quantify business positions, accounting malpractices and even today auditors do render investigative jobs. According to them, reporting Forensic Accounting Services is programmed for a certain period, yet, different from auditing. They emphasize that there are no regulatory body or government which control efforts to be put into Forensic Accounting Services which means it is voluntary for the corporate organization to report it. But, Smith, (1999) defines Forensic Accounting Services as an aid in disputes which are likely to involve litigation, arbitration, expert determination, mediation or an enquiry by an appropriate regulatory authority, and investigation of suspected frauds, irregularity or impropriety which could potentially lead to civil, criminal or disciplinary proceedings; while focusing primarily on accounting issues. Okoye and Gbegi, (2013) assert that Forensic Accounting Services includes the use of accounting, auditing, and investigative skills to assist in legal matters. It consists of two major components. Litigations services that recognized

the role of the accountant as an expert consultant, and investigative service that uses a forensic accountant's skills and may require possible court room testimony.

Similarly, in the view of Mangala and Kumari, (2015), Forensic Accounting Services is the application of criminalities technique and integration of the accounting and investigative skills and law procedures to detect and investigate financial crimes and related economic misdeeds. According to them, Forensic Accounting Services is a highly technical and specialized area of practice within the principles and ethics of accounting profession. They further confirm that it is not every Forensic Accounting Services engagement that ends up in the court of law. Wadhwa and Pal, (2012) are of the view that the term Forensic Accounting Services refers to financial fraud investigation which consists of the analysis of accounting documents to prove or disprove financial fraud and serving as an expert evidence in Court of law to prove or disprove the same. Hence, basically, the Forensic Accounting Services is the use of accounting for legal purposes. Forensic Accounting Services is a very vital tool in tracing the financial frauds and white-collar crimes. Whether it is a stock market fraud; bank fraud or cyber fraud, Forensic Accounting Services has become an indispensable tool for investigation.

Bhasin *et al*, (2012) contends that Forensic Accounting Services is more than counting numbers, but includes solving complex financial puzzles, especially in fraud, insurance, disputes and providing legal justification for presentation before the legal forum. Van-Akkeren and Tarr, (2014) assert that Forensic Accounting Services is the application of accounting principles, theories, and discipline to facts or hypotheses at issue related to the legal dispute. Forensic Accounting Services encompasses every

branch of accounting skills and includes two major components: litigation and investigative services. This means according to Price Water Coopers House, (2009) when corporate or personal reputations are at stake, an objective investigation of the facts is critical.

As Biswas, Hiremath and Shalini, (2013) noted that Forensic Accounting Services is used for fraud examination and it encompasses fraud allegations from inception to disposition, ranging from obtaining evidence, interviewing, writing reports, and testifying. Thus, this study sees Forensic Accounting Services as specialization that requires accounting, auditing and law expertise in alleviating financial and non-financial cases not necessarily before the court of law, with thorough and strong justification.

As emphasized by Ibrahim and Abdullah, (2010) if a forensic accountant would seek the cooperation of whistle blower, invariably it can be seen as an element of Forensic Accounting Services. As such, any firm that discloses whistle blowing information is an act of Forensic Accounting Services. Minimum working experience required for an accountant to be a forensic accountant is three years. However, fresh graduates are not in the position to be a forensic accountant, rather there is need to have experience of external and internal audit, psychology skills, and it goes with the forensic computer knowledge. KPMG is the pioneer in private sector that establishes Department of Forensic Accounting Services (Ibrahim & Abdullah, 2010). Thus, any firm that is audited by KPMG is assumed to be Forensic Accounting Services inclined. They also pointed out that for complex firms it is insufficient for external and internal auditors to detect issues. This is due to the fact that external auditors responsibility is

based on a substantive test to support compliance test, which all depends on sampling. Nowadays, financial report should be made in such a way that stakeholders will be convinced and regain trust. Hence, Forensic Accounting Services is seen to be suitable to offer and guarantee such assurance. For this, Forensic Accounting Services may affect voluntary accounting disclosure of listed financial service companies in Nigeria. Therefore, forensic accounting services in the context of this study refer to the application of accounting, auditing, and law skills to overcome litigation or fraud cases in an organization. Forensic Accounting Services is measured by assigning one to company that disclose Forensic Accounting Services information and zero otherwise.

2.3.7 Concept of Information and Communication Technology

Information and communication technology (ICT) is the automation of processes, controls, and information production through computers, telecommunications, softwares and other gadgets that guaranteed smooth and efficient running of organizations activities. It is a term that largely encompasses the coupling of electronic technology for the information needs of companies at all levels (Muhammad, Gatawa & Kebbi, 2013). As noted by Elgahwash and Freeman, (2013) ICT is embedded in the operations of the banking sector in industrialized and economically developed nations. On the other hand, Kateeba, (2001) defines ICT as the use of computers, micro electronics and telecommunications to produce, store and send information in form of pictures, words or numbers, more reliably, quickly and economically.

According to Dandago and Rufai, (2014), information technology is an aggregate of tools with the convergence of communications and computers, while Skinner, Biscope, Poland and Goldberg, (2003) describe information and

communication technology as a series of machines that can perform a sequence of instructions. The sequence of instructions is a programme which is flexible, not rigid and dynamic depending on the information being processed. ICT as buttressed by Abor, (2004) can be defined as modern handling information via electronic means, which involves its access, storage, processing, transportation or transfer and delivery. To Binuyo and Aregbeshola, (2014), ICT is a vast range of computerized technologies that allow communication and the electronic capturing, processing, and transmission of information. With the use of ICT as noted by Buhalis and Law, (2008) business entities can interact more efficiently, and it enables business to be digitally connected. Time constraint, and distance barrier to access vital information is eliminated or drastically reduced hence it improves coordination of activities within organizational boundaries (Spanos, Prastacos & Poulymenakou, 2002).

Agbolade, (2011) contends that ICT is the automation of processes, controls, and data production using computers, telecommunications, soft wares and other gadgets that guarantee smooth and efficient running of activities. It is a term that largely encompasses the coupling of electronic technology for the information needs of a business at all levels. Thus, it is a concept that is having remarkable success in the entire life cycle of human and corporate business environment. Plomp, Anderson and Quale, (2009) as cited in Adesola, Moradeyo and Oyeniyi, (2013) opine that ICT is a term which covers the harnessing of electronic technology for the information needs of businesses at all levels. Maldeni and Jayasena, (2009) observe that ICT is a means to channel data and important information electronically that is used in corporate

organization processes for the decision-making. With the emergence of the Internet, there is an increased opportunity enabling companies to succeed financially.

Edwin, Okpara, Aigbiremolen and Francis, (2014) observe that ICT composed a set of technological tools and resources used to communicate and to create, disseminate, store and manage information. Nwanyanwu, (2016) corroborates that ICT is a web base that determines the economic growth of nations. The success or otherwise depends on the degree and extent of socio cultural, socio economic and political improvement brought to bear through the application of technology. Dandago and Rufai, (2014) view ICT as an application of skills as well as the computer system to perform tasks, solve problems and create new methods to achieve corporate objectives and obtain desired outcomes. They further buttressed that the technology of software needs further research and development in order to accurately and timely meet the needs of stakeholders. Thus, this study adopts definition as provided by Edwin, Okpara, Aigbiremolen and Francis, (2014) that ICT as the application of computer based hard and software in communicating and disclosing information to stakeholders. The study also looks at ICT as the quantum of investment in computer accessories and software made in relation to its application by a corporate entity. ICT is measured by total investment cost on it or natural log of total investment.

2.4 Review of Empirical Studies

Several studies were performed in relation to firm attributes and voluntary accounting disclosure. The followings are the review of such studies:

2.4.1 Profitability and Voluntary Accounting Disclosure

Meek, Robert and Gray, (1995) conduct a study on the factors influencing voluntary annual report disclosures by United State (US), United Kingdom (UK) and Continental European multinational listed corporations looking at strategic, nonfinancial and financial types of information. The study used metals, building materials, and construction, engineering, consumer goods and services, oil, chemicals and mining as a unit of analysis. The study used profitability, company size, country/region of origin, international listing status, multinationality, leverage, and industry type as explanatory variables against voluntary accounting disclosure. The study is the first to examine attributes that affect voluntary accounting disclosure in transnational settings. Samples of 272 companies are selected all from multinational companies. In the sample, 116 companies are from the US, 64 from the UK, 46 from continental European, 16 from France, 12 from Germany and 18 from Netherland. A disclosure check list of 85 items was considered for the information which in turn enables them compares voluntary disclosure across countries and coded as 1, 0 or not applicable depending on the inclusion or not. The study used 1989 annual reports as its scope and is cross sectional. The index was then calculated as the ratio of the actual score awarded to the firm divided by the maximum potential score applicable after using unweighted score being its subjectivity that would involve in assigning a weighted score and different countries may assign different weight.

The study found that company size, country/region, listing status and industry type influences and explains voluntary disclosure of the sample firms but profitability has no significant effect in explaining the relationship. The study used multiple linear

regression techniques in making the analysis even though it fails ab initio to explain the technique to use. Also, to know whether it is panel, cross sectional or time series. Based on the study, it is cross sectional in nature and in fact, it should have conducted a Principal Component Analysis (PCA) to see the overall effects of all the sample firms in terms of their R^2 , F-Statistics among others. However, the study ought to have extended the scope beyond the one-year annual report. This will give room to quantify across a period the implication of voluntary disclosure of the sampled firms.

Rouf, (2011) examines the corporate characteristics, governance attributes on the extent of voluntary disclosure in Bangladesh using a sample of 120 listed none financial companies in Dhaka Stock Exchange in 2008. An ordinary least square regression model was used to examine the extent of the relationship between explanatory variables and dependent variable. The study used profitability, size, independent non-executive directors, audit committee, board leadership structure and ownership structure being control variables. Regression, T-test, F-test have been used in analyzing and interpreting the data collected, though it failed to explain which type of regression. The study used 68 items in the disclosure checklist for the dependent variables using unweighted relative disclosure index for quantifying the extent of voluntary disclosure. The result documented that board size, board leadership structure, board audit committee are significant with voluntary disclosure, while on the contrary, independent directors ownership and profitability document have negative relationship with voluntary disclosure. The study failed to explain the implication of each result in the result output, rather it simply makes a referral to those studies that are in tandem with this study. Also, the study should have looked at the individual industry to check

the extent of the relationship with voluntary accounting disclosure. The use of none financial companies will deter the result for generalization across to encompass listed financial companies in Bangladesh. Moreover, the index is very sensitive in which improper selection may affect the overall result.

Aikaeli and Rashid, (2015) empirically examined the relationship between profitability and voluntary disclosure: A case study of Banks in Kenya. The study uses unweighted disclosure index to measure the extent of the relationship between profitability and voluntary disclosure in which 40 items were used in constructing the disclosure index. Ordinary least square was used as a technique for analyzing the data. The study use firm age, profitability, liquidity ratio, listing status and firm size as variables. The study used a sample of 31 banks in Kenya out of which 11 are listed and 20 are unlisted which are randomly selected. The scope of the study is 2013 where data was extracted from commercial banks' annual financial reports as at December 2013. The study found that profitability, listing status, and size are positively and significant in explaining the relationship with voluntary disclosure. The major drawback of this study relates to the time frame being just one year. The study ought to have used more than one year for it to capture thoroughly the extent of the relationship. This is due to the fact that the study focuses on one industry even though it combines listed and unlisted firms.

Monday and Nancy, (2016) examine determinants of voluntary disclosure quality in emerging market as evidence from firms listed in Nigerian Stock Exchange (NSE). The study used profitability, firm size, board composition and gearing ratio as explanatory variables against dependent variables which are voluntary disclosure. A

sample of 793 corporate annual reports listed on the floor of Nigerian Stock Exchange was used for fourteen (14) years from 2000 to 2013. It used 61 selected firms which make the number of observations to be 854. The study used ex-post facto as research design in which two models were used. One of the models used only the sampled financial listed firms while the other one used nonfinancial firms only. A fixed effect multiple regression techniques were used to test the extent of the relationship between the independent and dependent variables. The study comprised 45 related items for mandatory and voluntary accounting information as a scorecard that will be a basis for quantifying dependent variables. Items selected were based on the unweighted disclosure index. The result shows that firm size and board composition has a positive relationship while conversely profitability and gearing ratio reports a negative relationship with voluntary disclosure quality among the listed companies in Nigeria. Thus, the study should have used correlational research design instead of ex-post facto which is normally used for comparison of pre and post events or performance, although it was stated in the main work that the study uses quantitative research design. Therefore the question here is to know whether the two are intertwined. This work is more on the relationship than pre and post.

However, the study claimed to have used Generalized Method of Moment (GMM) in which in econometric it is a generic method for estimating parameters in statistical models, usually it is applied in the context of semi parametric models, where the parameters of interest is finite-dimensional, the full shape of the distribution function of the data may not be known and therefore maximum likelihood estimation is not applicable (Hansen, Durlauf & Blume, 2007). The use of GMM was stated in the

abstract but in the main work, panel effect regression was used. The study provides no further explanation with regard to the usage of GMM. Many issues in the abstract are not in tandem with what the main work entails. For example, the scope shows 2000-2014 but in the main work it was captured as 2000-2013, based on the abstract two models are used in the study but in the main work parsimonious models were used only. Ab initio in the title, it was stated that the study will look at the determinant of voluntary disclosure, but suddenly in constructing disclosure index, mandatory and voluntary items are used. As such, the topic should be reframed as a determinant of disclosure quality in emerging market as evidence from listed NSE. Moreover, the study failed to append the result output and also the list of population and sample of the study are not given.

2.4.2 Liquidity and Voluntary Accounting Disclosure

Barako, (2007) empirically examines the determinants of voluntary disclosure in listed Kenyan companies annual reports for ten (10) years from 1992-2001 with a sample of 54 companies. The study assessed the relationship of corporate governance attributes, ownership structure, and firm attributes against voluntary disclosure. For the firm attributes, liquidity, size, leverage, type of audit firm and profitability in which industry type serve as control are used as explanatory variables. However, 47 items were selected as items to use in constructing voluntary disclosure checklist which is classified into generic and strategic information; financial data; forward looking disclosure; corporate social disclosure and board and senior management information. Thus, the study used unweighted disclosure index. It used pooled Ordinary Least Square (OLS) alongside with Panel-Corrected Standard Errors (PCSEs). Based on the empirical

result, board leadership, foreign and institutional ownership and firm size are significantly related to voluntary disclosure. Therefore, in line with the review, the study failed to capture the validity and reliability test for the data used such as the test for multicollinearity, heteroskedasticity, among others. This is due to the fact that the study used panel data for a period of ten years.

Consequently, Hawashe and Ruddock, (2014) examine empirically the commercial bank's attributes and annual voluntary disclosure from Libyan Stock markets firms. The study used liquidity, firm size, profitability, government ownership, foreign ownership and listing status as explanatory variables against voluntary disclosure of selected commercial banks in the listed Libyan Stock Exchange for six (6) years from 2006 to 2011 financial year as well as unlisted commercial banks. A total of nine (9) banks were selected comprising six (6) listed commercial banks and three (3) unlisted ones in Libya which make it 54 observations and justification was not provided for the sample banks. Ordinary Least Square regression model was used to assess the extent of the relationship between the explanatory variables and dependent variable. A total of 63 items were used to form the voluntary disclosure index which is relevant in commercial banks of Libya and unweighted disclosure index was used as the scoring approach. The study found that firm size and listing status indicate a significant positive relationship with voluntary disclosure of the sampled listed and unlisted commercial banks covered by the study.

Conversely, other explanatory variables report insignificant statistical relationship in explaining the variations in the level of voluntary disclosure information. The model of the study was captured wrongly. This is due to the fact that the period and

time was not shown in the model in subscript form. It also failed to interpret the β_1 - β_7 , result output as a picture and the software used in running the data. However, since the publication of the paper is in 2015 and the scope end in 2011, more years should have been included. Finally, the theoretical underpinning for this study is missing.

2.4.3 Leverage and Voluntary Accounting Disclosure

Hossain, Perera and Abdulrahman, (1995) assess the extent of voluntary disclosure in the annual reports of New Zealand companies listed in New Zealand Stock Exchange using leverage, firm size, assets-in-place, type of auditor and foreign listing status as explanatory variables. The study was based on cross sectional regression looking at a particular financial year. At the New Zealand Stock Exchange, there were 146 listed companies as at 31st December 1991 out of which 55 companies were selected using stratified sampling technique. The study used 95 items in developing the checklist which was used from the work of Meek, Roberts and Gray, (1992); Cooke, (1989) and Chow and Wong-Boren, (1987). The Unweighted index is considered in their study. The result shows that firm size, foreign listing status and leverage are significantly related to the extent of voluntary disclosure of listed companies in New Zealand. Conversely, the asset in place and type of auditor did not appear to be important factors in explaining voluntary disclosure by firms. The major drawbacks for the study are its concentration on only one period which is 1991. A robust relationship can be obtained if more years are included to give room for performance trend. It will give a better picture also if one industry is considered across the period.

Raffounier, (1995) examines the determinants of voluntary financial disclosure of Swiss listed companies using 1991 annual reports of 161 industrial and commercial

companies as a sample for the study. The study use leverage, company size, profitability, ownership structure, internationality, auditor's size, a percentage of no-current assets, share listing and industry type as independent variables. A univariate analysis and multiple regressions were used in assessing the relationship between voluntary financial disclosure and the independent variables in the study. Due to the low accounting disclosure in Switzerland, this study is a pioneering effort in this area to authors' knowledge. All Swiss listed companies' annual report for a period ending 1991 was used with the exception of financial and insurance firms for being subjected to specific disclosure requirements. The study used a sample of 161 companies listed in Switzerland Stock Exchange as per the criteria mentioned using unweighted scores due to its non-subjectivity even though according to the author it is wrong, but to his understanding, the resulting bias is lower than if an erroneous weighing score had been used.

However, the result of the study found that company size and internationality influence voluntary financial disclosure of listed firms in Switzerland. Conversely, no significant relationship was found for the percentage of fixed assets, size of auditing firms, industry type, profitability, leverage, and ownership diffusion. As buttressed by the author, one of the issues concerning the methodology is that not all the information is vital to other companies since they based their disclosure index on Cooke, (1989). The major issue of the study is the period gap because it used just one financial period which is 1991. The study, however, failed to interpret the implication of each item in the result which is considered important. For example, the correlation results between

the dependent variable and explanatory variables and among independent variables themselves.

According to Cooke, (1989), his study is the pioneering work on Voluntary corporate disclosure by Swedish companies during the year ended 31st December 1985. The study used leverage, firm size, foreign activity, ownership structure, size of auditing, priority cost related to competition, labour pressure and a barrier to entry. The study employed univariate analysis in determining the extent of the relationship between dependent and independents variables. Ordinary least square multiple regression was employed in running the data for the study. It is important to note that an annual report in France is not mandatory as noted by the study and as such accounting principles do not specify its contents. For this reason, the study of this nature in France is commendable. The result concludes that size, foreign activity, proprietary costs and labour pressure are statistically related to the extent of voluntary accounting disclosure. On the contrary, leverage, auditor size, and ownership structure were insignificant. The scope of the analysis ought to have been more than just a year and taken industry by industry will give a clear picture of the firm s performance.

2.4.4 Firm Size and Voluntary Accounting Disclosure

Singhvi and Desai, (1971) are among the first to conduct studies on corporate financial disclosure on the work titled an empirical analysis of the quality of corporate financial disclosure by firms in United State of America (USA). Their study used 100 listed and 55 unlisted corporations for a period of two years from 1965-1966. The study used a random sample of 500 largest USA industrial corporations included in the fortunes' directory of 1965 and annual reports of the unlisted corporations were selected

from National over the counter quotations of 800 corporations published in the New York Times. An index disclosure of 34 items was used. Weights are assigned to the items in order to note the relative importance. Furthermore, for the study to test the relationship between different features and quality of disclosure, a multivariate analysis was done. The explanatory variables examined in the study are six (6) which include assets size, a number of stock holders, listing status, Certified Public Accountant (CPA) firms, the rate of return and earnings margin. The study found that asset size, listing status, number of stockholders, CPA firm, the rate of return and earnings margin posit a positive relationship with quality of disclosure for listed and unlisted corporations. On this note, the study conclude that companies which disclose inadequate information are likely to be: (i) small in size as measured by total assets, (ii) small in size as measured by number of stockholders, (iii) free from listing requirements, (iv) audited by a small CPA firm, (v) less profitable as measured by rate of return, and (vi) less profitable as measured by earnings margin. The study covers only two years and scope for just 1965-1966 in which many events took place from then to date. For this reason, there is need to update the study again to consider the events after this study was conducted.

Chow and Wong-Boren, (1987) examined factors behind voluntary financial disclosure by Mexican corporations and use firm size, financial leverage and proportion of assets in place as explanatory variables using 52 listed firms in Mexican Stock Exchange all from manufacturing companies. However, 24 items were used to construct the disclosure scores. The study used cross-sectional regression and found that firm size is significantly and positively related to the extent of voluntary financial disclosure

while financial leverage and assets in place are not. The study failed to explain the scope of the study used.

Moreover, Cooke, (1989) investigates the nature of voluntary corporate disclosure by Swedish companies listed in Stockholm Stock Exchange as well as firms that are not listed. The study use size, quotation status, parent company relationship and industry type as explanatory variables against voluntary corporate disclosure. A sample of 90 Swedish companies including 38 unlisted companies was used. Furthermore, the 52 listed companies chosen are subdivided into 33 companies that have a quotation on the Stockholm Stock Exchange (SSE) and 19 corporations that are listed on the SSE and have at least one foreign quotation. The study is more robust compared to previous studies as it contains larger sample which provides a widespread and permits generalization to be made on the extent of the voluntary disclosure in the corporate financial statement of Swedish companies. The scoring sheet was scrutinized by three Swedish practising accountants and a final list of 146 items of the voluntary information to measure the extent of the voluntary disclosure provided by a company was compiled and unweighted disclosure checklist was used. The study established that there is a significant association between company size, quotation status and industry type and the extent of voluntary disclosure. Buzby, (1972) criticises the work that it lacks detail application of assigning point score; there is a strict application of the dichotomous procedure and there is present of multicollinearity between the proxies. The study equally failed to justify as to the period to cover for the study.

Naran, (2013) investigates the effects of company size and voluntary disclosure of financial performance of commercial banks in Kenya for four (4) years from 2008-

2011. The study used company size, company general, and strategic disclosure; financial disclosure; forward-looking disclosure and board disclosure as proxies for the measuring voluntary disclosure. The study adopted descriptive research design using a sample of 17 commercial banks. A total of 47 items were used to develop the voluntary disclosure checklist. Multiple linear regression models were used in analyzing the data for the study. The study found that firm size has a significant relationship with a firm performance which is expected to have influence in disclosing voluntary information as it reduces information asymmetry and reduces the cost of capital. The scope of the study is too small as it takes only four years looking at the number of sampled banks used. The study focuses on only one sector, in which if all sectors in Kenya are covered, it would provide insight for comparison among academia and scholars. It equally failed to conduct the multicollinearity and heteroskedasticity test for the data. This will give a clear indication if done for the normality of the data

Filsaraei and Azarberahman, (2016) examine empirically, an association between firm characteristics and voluntary disclosure extent of financial and nonfinancial information on annual reports of board of directors in Iran in the Tehran Stock Exchange. The study used a sample of 254 firms where firm size, profitability, type of industry, debt ratio and audit size are considered as explanatory variables while voluntary disclosure information is the dependent variable. It uses unweighted disclosure index to measure the extent of voluntary disclosure with 31 items as a total index. One way variance (ANOVA) and multiple regressions were used as the technique for data analysis. The study concludes that firm size significantly affects voluntary disclosure while conversely profitability, audit size, and type of industry and

debt ratio establish no significant relationship with listed manufacturing firms in Tehran. Studies reviewed in this paper are not criticized, rather it reports previous work. Also, the unit of analysis is not captured in the title of the work which is manufacturing firms. It, however, fails to state whether the study uses time series, cross-sectional or panel data and as such scope of the study is missing. The study also provides no justification as to why only one variable is significant out of five explanatory variables.

Depoers, (2000) investigates a cost-benefit of voluntary disclosure with empirical evidence from French listed companies. The aim of the study is to relate the extent of voluntary disclosure with some economic determinants using 1995 annual reports of 102 selected industrial and commercial companies in Paris Stock Exchange and used 65 discretionary items in the disclosure index. The list of voluntary items was the applied against annual reports of the sampled companies. A disclosure score was calculated for each one. The procedure used is dichotomous in that an item scores 1 if it is disclosed and 0 otherwise. The level of disclosure is measured for each firm as the ratio of the score earn to a maximum applicable to that company. This is the methodology first proposed by Cooke, (1989).

2.4.5 Firm Age and Voluntary Accounting Disclosure

Ibrahim, (2014) empirically examines firm characteristics and voluntary segments disclosure among the largest firms in Nigeria. The study sampled 76 companies listed on the Nigerian Stock Exchange for the year 2011 which is pre-IFRS adoption period according to the study. The disclosure checklist was used based on the IFRS 8 requirements which is an operating segment which requires classes of entities (those with publicly traded companies) to disclose information about their operating

segments, product and services, the geographical areas in which they operate and their major customers. The study performed content analysis on the annual reports of each company. Disclosure checklist was used to assess the extent of segment disclosure of the sample firms' financial report using the unweighted approach in constructing the checklist. Listing age, return on investment, ownership diffusion, firm size, growth rate and industry type are the explanatory variables for the study against voluntary disclosure which is the dependent variable. A multivariate regression model was used to examine the extent of the relationship among regressors and Ordinary Least Square regression was used. The study documents that firm size and industry type report significant positive relationship with voluntary disclosure, while firm listing age, growth, return on investment and ownership diffusion posit inverse of the first two variables that shows a positive relationship.

The analysis of the result indicate that the minimum listing age is -0.37 and provides no explanation to that. The means the data used in running the result need to be rechecked. The scope of the study should have at least covered post-IFRS adoption since the publication of these articles fall in 2014 and its scope is 2011. The study, however, ought to have captured even if it is as an appendix for the list of IFRS 8 requirements which was used as a means for constructing the voluntary disclosure index. It failed also to explain who used that measure before this study. The study failed to state the underpinning theory, statistical software used and the resulting printout.

Ogwe, (2014) conducts a study on the determinants of voluntary disclosure in the annual reports of companies listed on the Nairobi Securities Exchange. The study uses firm age, firm size, profitability, leverage, external auditor type and ownership

structure as independent variables against voluntary disclosure which is the dependent variables. The study used descriptive research design using a sample of 31 companies listed on the Nairobi Securities Exchange for the year 2012. The data for the dependent variables comprises of 47 disclosure items for the measurement of voluntary disclosure. The study uses a multivariate ordinary least Square model with robust standard error to test the effect of the six (6) firms attributes against the extent of the overall voluntary disclosure and to find out which one among the explanatory variables explain the variations in the voluntary disclosure among the sampled firms. The study documents that diffuse share ownership, external auditor type, firms leverage, firm's profitability, firm's size are significant in explaining the extent of voluntary disclosure of listed sampled firms' in the Nairobi Securities Exchange and on the contrary firm age reported an insignificant relationship with voluntary disclosure. There is no need for the study to mention the measurement in the abstract rather the findings only. The study also ought to have run for stepwise regression in which the best proxies can be selected and used in aggregate to determine the extent of voluntary disclosure. The study, however, did not conceptualize the explanatory and dependent variables. The study failed to append the result output since it claims to have to use Statistical Package for Social Sciences (SPSS) software and it involved a one (1) year test even though ultimate controller biases were controlled for, but if it includes more years it may give influences, particularly with respect to cost of equity.

Uyar, Kilic and Bayyurt, (2013) empirically investigate the association between firm characteristics and corporate voluntary disclosure as evidence from Turkish manufacturing firms listed on the Bursa Istanbul Stock Exchange (BIST) using 131

corporations' annual reports. The study used nine (9) explanatory variables comprising of listing age, institutional/corporate ownership, ownership diffusion/dispersion, independent directors, board size, corporate governance index of the BIST, firm size, profitability, leverage and auditor size against voluntary disclosure which is the dependent variables using 96 voluntary disclosure items. It adopted unweighted index in constructing the voluntary disclosure items. The study used content analysis of annual reports of the sample firms for the financial year 2010. It used Ordinary Least Square (OLS) and two-stage least Squares (2SLS) regression to find out the extent of association between the independents variable and dependent variable which is voluntary disclosure level. The study documents that firm size, listing age, the proportion of independent directors on the board; institutional/corporate ownership and corporate governance have a positive relationship with voluntary disclosure information, while leverage and ownership diffusion reported negative relationship.

Conversely, profitability, listing age and board size was found to be insignificant. Since this study was conducted solely on listed manufacturing companies, the results may not be generalizable to unlisted and non-manufacturing industries. Also, the study ought to have covered more than one period (that is longitudinal studies) as it is a snapshot of only one point in time. This will reveal more substantial and interesting output and trends. The study should have shown the result output, software used and detailed analysis of the validity and reliability test output since there are elements of multicollinearity among others as noted by the article.

Albitar, (2015) conducts a study on firm characteristics, governance attributes and corporate voluntary disclosure: A study of Jonadian listed companies. The firm

attributes (firm size, leverage, firm age, profitability and liquidity) and corporate governance attributes (independent directors, audit committee, board size, ownership structure) are the independent variables while voluntary accounting disclosure is the dependent variable. The study however used industry type, audit firm and listing status as control variables. The study used 124 listed companies in Amman stock exchange for 3 years (2010-2012). Filters were used for the study's sample and for the measurement of level of voluntary disclosure, unweighted index was used by developing the index. Ordinary least square regression was used to examine the relationship between variables and secondary method for data collection was employed. The study found that firm size, leverage, firm age, profitability, liquidity, liquidity, board size, and audit committee have a significant and positive relationship with the extent of voluntary disclosure and independent directors and ownership structure have a significant but negative relationship with the level of voluntary disclosure.

The study failed to conceptualize the independent variables used, its operational definition and construct, though for the dependent variables effort was made to articulate the concept. Furthermore, there is absence of theoretical underpinning for the study and the unit of analysis. Efforts were made to explain the result in details but the result output has not been attached. However, the study should have extended the period at least to 2013 if not 2014 since the paper was received for publication in November, 2014 and accepted in January, 2015. The study equally failed to explain the validity and variability test such as normality.

2.4.6 Forensic Accounting Services and Voluntary Accounting Disclosure

Various studies were reviewed in respect of Forensic Accounting Services against not limited to fraud detection, fraud prevention, and performance, but none of the studies to the best of my knowledge looked at Forensic Accounting Services and voluntary accounting disclosure of listed Financial Service Companies in Nigeria. As such, this study will review previous studies that are related to Forensic Accounting Services.

Okoye and Gbegi, (2013) assess Forensic Accounting Services as a tool for fraud detection as well as prevention in the public sector with particular reference from selected banks in Kogi State, Nigeria. The study used survey research design and utilized both primary and secondary data in which 370 questionnaires were administered to respondents and interviews were conducted. The study used purposive sampling technique in coming up with the selected ministries which are non-probability sampling. The study used simple percentages in making its analysis and ANOVA was used in testing the hypothesis. It used fraud, a variance between professional and traditional external auditors as explanatory variables while Forensic Accounting Services serves as a dependent variable. The scope of the study was five (5) years from 2006-2010.

The study documents that the use of Forensic Accounting Services significantly reduces the occurrences of fraud in public sector. Moreover, there are variations between professional forensic accountants and traditional external auditors. The study should have used statistical software in analyzing its questionnaires. It provides no justification to the scope of the study. The field survey ought to have been conducted within the period covered by the study not after as evidence in the study that 2011 was

used. There are no proper itemizations of the tables in the study. The population of the study should be all the ministries in Kogi state and not the number of employees in the selected ministries. As such all the ministries in the state should be stated in form of table or as an appendix. The study failed to explain whether validity or reliability of the questionnaire was performed. This will guide us whether the questionnaires were adopted, adapted or developed. It also failed to explain whether the questionnaires were designed using a Likert scale or not. The recommendations should not be more than two since the study has only two objectives and rejects the entire null hypothesis formulated. The bibliography used failed to tally with any known referencing or bibliography standard globally.

Enofe, Toluwa, Fasua and Ajayi, (2016) examine the Forensic Accounting Services and financial reporting quality in improving qualitative features as evidence from the private sector of the economy. The study adopted survey and descriptive approach in which primary data were used as information was extracted from accountants through administering questionnaire for a sample of 250 respondents out of which 178 were returned using simple stratified sampling technique against 5 strata of the audit firm, academic, public sector, financial institutions and other organized private organizations. The data for the study used Pearson's correlation coefficient and multiple regression techniques for its analysis. The study, documents those qualitative features (relevance, faithful and understandability) that significantly affect Forensic Accounting Services. In essence, relevance, faithfulness. and understandability of financial statement positively and significantly affect the financial reporting quality of audit firm, academic, public sector, financial institutions and other organized private organizations.

Ab initio in the topic the study fails to capture the unit of analysis and it fails also to state the scope within which the study was conducted, especially the period of administering the questionnaires.

However, the study fails to review and critique literature and provides no explanation with respect to the theories that underpin the study. The study provides reliability test using Cronbach Alpha for the overall variables instead of an individual variable. On the other hand, it failed to provide information regarding content validity test. Moreover, the statement was not made with regard to whether the study adopts, adapt or modify the questionnaires. There is inconsistency in the number of questionnaires distributed. This is due to the fact that in the body of the work 250 questionnaires were distributed out of which 179 was returned and also in the conclusion. 200 questionnaires were distributed and 178 were returned. Therefore, I assume based on the tables 250 and 179 questionnaires were distributed and returned respectively. Notwithstanding, the study failed to be specific on the type of audit firm, academics public sector, financial institutions and other private organized private organization used which form the unit of analysis for the study. Conclusively, the study failed to show the SPSS result output which will give room for readers to comprehend the result fully.

Saifullahi and Hassan, (2016) examine business governance and quality of Forensic Accounting Services of listed deposit money banks in Nigeria for a period of five (5) years from 2010-2014. The study used quality of Forensic Accounting Services as dependent variable while the explanatory variables are board composition, audit committee, managerial shareholding and institutional shareholding. For the

methodology, the study used correlational research design and adopts multiple regressions as a tool of analysis. Board composition and audit committee are found to be significantly and positively associated with quality of Forensic Accounting Services in listed deposit money banks in Nigeria. Managerial shareholding is found to be significantly and negatively related with quality of Forensic Accounting Services of listed deposit money banks in Nigeria. On the contrary, institutional shareholding is not significant at all level of acceptance in explaining quality of Forensic Accounting Services of listed deposit money bans in Nigeria.

The findings of the study as stated in abstract should be between independent variables and dependent variable, but in this case the interpretation is for independent variables alone. This is due to the fact that it correlate individual explanatory variable (that is managerial shareholding, audit committee, board composition and institutional shareholding) with corporate governance mechanisms instead of quality of Forensic Accounting Services. The objectives, hypotheses and model specification should be stated in such a way that objective number one should be hypothesis number one and beta coefficient number one, but in this case the reverse is the case. Notwithstanding, in the model, managerial shareholding was used in place of executive shareholding and no explanation as to the nomenclature. Therefore, consistency is missing in the flow, for instance, the arrangement of variables in the model should be in tandem with the way objectives and hypotheses of the study are stated.

The scope of the study was narrowly stated without justification in the methodology instead of background information. Also there are in text citation without referencing. The study failed to explain who use the measurement of quality of Forensic

Accounting Services before this study. The names of listed deposit money banks and result output are not attached. The mean average of quality of Forensic Accounting Services should not be up to 97 since the study use dichotomous of 1 and 0. The descriptive statistics is not thoroughly interpreted and some variables are wrongly interpreted. For instance, managerial ownership minimum of 0.68 was interpreted as mean average. The recommendations should be based on findings of the study and across all the explanatory variables unlike making recommendation on just one.

Wadhwa and Pal, (2012) investigate Forensic Accounting Services and fraud examination in India and the study used secondary data and discussion with a top official in corporate organizations. The study documents that Forensic Accounting Services is still at crawling stage in India due to insufficient expertise and or time needed to uncover fraud. The study failed to capture the scope, the methodology adopted except the use of secondary sources which have been mentioned and techniques of data analysis. The variables are not categorically spelled out, no review of empirical studies and no theoretical underpinning.

Eliezer and Emmanuel, (2015) conduct a study on the relevance of Forensic Accounting Services in the detection and prevention of fraud in Nigeria. The study was a theoretical research. The study found that services of audit committee members with Forensic Accounting Services skills improved over the traditional audit committee. In the study, there is no scope, unit of analysis, hypothesis, theoretical underpinning. However, variables related to the study are not captured. Since the study claimed to have used questionnaire, it failed to show the questionnaires, analysis of responses, whether the study adopts, adapt or modify the questionnaire.

Popoola, Che-Ahmad and Samsudin, (2014) conduct a study on a topic titled Forensic Accounting Services and fraud: capability and competence requirements in Malaysia. The study employs accountants and auditors in the office of the accountants as well as auditors general of the Federation of Malaysia as its unit of analysis. It discusses issues related to auditing, fraud, fraud risk assessment, mindset, and skills against Forensic Accounting Services practice. The study finds that forensic accountants have the potentials to detect fraud that traditional external auditor fails to. The study however, fails to bring out major issues in the abstract, in which findings of the study are missing. However, there is a complete absence of the period in which the study was undertaken, the methodology adopted, whether the study uses primary or secondary data in making analysis in relation to findings and conclusion. The study provides no theoretical underpinning and a thorough review of the literature.

2.4.7 Information and Communication Technology and Voluntary Accounting Disclosure

Dandago and Rufai, (2014) empirically investigate information technology and accounting information system in the quoted Nigerian banking industry covering a period of ten (10) years from 1999-2008. The study used information technology (IT) as dependent variable while soft wares used by listed Nigerian banks, how IT improves the services provided by Listed Nigerian Banks, perceptions of listed Nigerian banks on the relevance of accounting information technology, whether IT enhances listed banks performance as explanatory variables. It uses primary data in measuring the explanatory variables. The study used both primary and secondary data. Questionnaires, interviews, and observations were used for primary data and for secondary data relevant annual

reports from Nigerian Stock Exchange fact book of 2009 of the relevant listed banks were used.

The study used 50 questionnaires which were distributed to the respondents. ANOVA was used in making an analysis and testing the hypothesis formulated. Judgmental sampling was used to arrive at the sample for the study. The study documents that IT is relevant in the provision of quality information in the listed banks in Nigeria; the use of IT facilitate accurate and timely preparation of reports, IT enhance communications among banks in terms of inter-banks communication. The study concludes that information and communication technology has improved the provision of the quality of accounting information in the Nigerian Banking industry. The study fails to justify the period covered and review of empirical studies are scanty. Moreover, the sample of the study is too small to the extent that it cannot be confidently generalized. For example, there is need to take Unity banks plc as a sample since the study uses judgmental sampling technique because, in reality, they are far behind in terms of IT inclined.

In addition, the publication was done in 2014 in which there is a gap between the publication date and the date the study was conducted. This means there is a need at least to add some years to update the study. The study also fails to explain the research design adopted in which it supposed to use ex-post factor research design due to the fact that the study is a comparison between the period before consolidation and after consolidation. It also fails to explain the type of scale adopted in formulating the questionnaire and whether the questionnaire is adopted, adapted or newly formulated. The study will be more robust if a statistical software was used in making its analysis

such as STATA, Eviews, SPSS, among others. It, however, failed to show the nature of the questions address to the respondents for the questionnaires and interviews and even how the observations were conducted. Also, explanations were not provided on how many questions represent a particular variable.

Moya, Akodo, Mukooza, Kaliba and Mbarika, (2012) empirically examine the effect of Investment in Information and Communication Technology (ICT) on Performance and Growth of Microfinance Banks Institutions in Uganda. The study used Data Envelopment Analysis (DEA) through Malmquist productivity index as an estimator. It is a bilateral index used to compare the production technology across firms. The study uses six (6) firms for a period of seven years from 2000-2006 using annual reports and account of the sampled firms. A number of clients, total capital, operation and management cost, investment in ICT and average total cost as explanatory variables against performance and growth which is the dependent variables. It used multilateral modeling which allows for investigating within and between variability of the response variable (in this context, performance, and growth). The study documents that investment in ICT significantly affects the performance and growth of microfinance banks in Uganda. The study ought to have covered up to at least 2010 since the publication was done in 2012. It also failed to mention the names of the firms sampled and the total number of microfinance firms in Uganda. Equally, the study provides no information regarding whether the firms are listed or otherwise. Moreover, theoretical underpinning the study is missing.

Nwanyanwu, (2016) statistically investigates the influence of Information and Communication Technology (ICT) and Accounting Practice in Nigeria: An empirical

investigation. The study uses Financial Accounting, Auditing, and Taxation as proxies to Accounting Practice which represent dependent variables. On the other hand, power, (pwr); high cost of computers (hcc); high cost of the system (hcs) and computer system (cs) as proxies to ICT which represents the Independent's variables. It used survey research design and 150 questionnaires were distributed to respondents in which 104 were returned. It was distributed to accounting staff of 30 organizations through a pilot study. The study uses primary data via questionnaire for both private and public sectors accountants. It used multiple regressions alongside with Pearson's correlation product-moment coefficient correlation. The study, however, found that all the explanatory variables (pwr, hcc, hcs, and cs) influence significantly the Accounting System in Nigeria at various level of degree of acceptance.

Therefore, ICT has an empirically positive significant relationship with Accounting Practice in Nigeria. The study fails to state the scope and theoretical framework underpinning the study. Although it states that it uses private and public sectors accountants but names of such organizations are missing. However, the way it states the hypothesis of the study should not be like that in which the first hypothesis should be for the main objectives of the study while the second one should be broken into four (that is, power, high cost of computers, high-cost system and computer system has no significant relationship with accounting practice in Nigeria). It also fails to explain the implication of variance inflation factor and the tolerance value. It provides no information as to how the structural model should look like since it uses primary data and result output is missing.

Muhammad, Mukhtar and Sani, (2013) assess the effect of ICT on bank performance: A study of selected commercial banks in Nigeria. It was done for 11 years from 2001-2011. Profitability, ATM usability, and e-banking services are the independent variables while bank performance is the dependent variable. Multiple regression analysis was used and Hausman specification test was conducted and a random effect was suggested as appropriate through STATA software. The study uses 11 selected listed commercial banks out of 21 as at 31st December 2011. It is found that only profitability has a significant positive relationship with bank performance whereas ATM usability and e-banking services are insignificant at all level of acceptance. The study fails to critique the related studies and provide no information with regard to the theoretical underpinning the study. The STATA output shows that shareholders fund is the dependent variables with four independent variables (that is, profitability, ATM usability, e-banking services and return on equity). The study provides three recommendations instead of one. This is in view of the fact that recommendations are made to those variables that are significant in which in this context only profitability reported significant p-value. Moreover, the study recommends the usage of return on assets and or return on equity as a measure of bank performance in which it does not test it empirically.

Imeokparia, (2013) conducts a related study on information technology and financial reporting by listed deposit money banks in Nigeria: An empirical approach from 2012 information contained in Nigerian stock exchange fact book. A descriptive research design was adopted using 2,500 out of 95,000 employees in the listed deposit money banks in Nigeria as a population of the study in which 345 was used as a sample

after applying Yaro Yamani's formula. Simple regression analysis was applied the primary data via SPSS. The certainty of accurate, reliable, relevance and completeness was used as a single independent variable while compliance with the Generally Accepted Accounting Principles (GAAP) and standards was another independent variable. Automation of financial reports serves as a dependent variable. The study uses 21 listed deposit money banks in Nigeria out of 22 as at 31st December 2013. It was found that information technology enhances accuracy, reliability, relevance, and completeness of financial reports. Conversely, information technology does not affect compliance with GAAP and standards. Two different periods 2012 and 2013 are stated in sourcing information from NSE which is not specific. The sample used represents only 13.8% (that is, 345/2,500) of the total population used which may not be a good representation that warrants for generalization. It also fails to explain how the study arrived at the modified population of 2,500 out of 95,000 employees of listed DMBs which is 2.63% (that is, 2,500/95,000). Moreover, the nature of the questionnaires administered is missing and no explanation on whether it is adopted, adapted or developed. Likewise, theoretical underpinning the study is absent.

2.5 Theoretical Framework and Model Build-up

The theories that underpin this study are the agency theory, Positive Accounting theory and Innovation diffusion theory. Agency theory as proposed by Jensen and Meckling (1976) is a theory that looks at how to ensure that agents act in the best interest of the principal and to bridge information asymmetry. On the other hand, positive accounting theory was developed by Watts and Zimmerman (1978, 1990) which is mainly on companies accounting choices in relation to other firm variables

such as firm leverage and firm size. However, voluntary accounting disclosure is an accounting choice. Hence, positive accounting theory has been classified under three hypotheses. The hypotheses are bonus plan/compensation plan, political cost and debt cost hypotheses. The second and the third hypotheses are used under positive accounting theory in this study. The choice is due to the fact that bonus plan is not obtainable in our environment compared to developed economy. Debt cost hypothesis argue that the higher the debt level, the more likely it is that managers will tend to use accounting methods and procedure in increasing accounting profit. As such, disclosing voluntary information will be of great importance.

Given that voluntary accounting disclosure is not required by law which is an accounting choice according to positive accounting theory and yet listed financial service companies capture them in their financial statement. Thus, to measure it, this study hypothesized that voluntary accounting disclosure is a function of firm attributes. Watts and Zimmerman (1990) affirm that the extent of accounting disclosures are correlated with firm attributes. Therefore, firm attributes as explained earlier are those incentives that are vital to the progress of listed financial service companies in Nigeria. Therefore, based on this study, seven potential independent variables grouped into three classifications are considered. These are structural and performance variables (Hassan, 2012) as well as offer variables (Land and Lundholm, 1993). Structural variables assess firm attributes that are widely known and most likely to remain stable over time. Performance variables on the other hand are time period specific which represent information in which management may have preferential access and which is most likely to be an issue of disclosure during the period. Finally, offer variables do not

perfectly fit into either of the group. These are Forensic Accounting Services and ICT which are time period specific, rather companies which offer Forensic Accounting Services and ICT information generally do so repeatedly, and are choice variable for the company (Land & Lundholm, 1993).

Therefore, two (firm size and leverage) of the firm attributes are firm structural variables, three are performance variables (profitability, liquidity and firm age) and the remaining two (Forensic Accounting Services and ICT) are the offer variables. As such, the voluntary accounting disclosure is posited to be function of firm structural variables. This can be presented econometrically as follows:

$$VDISL = F (LEVG, FSIZ)------(i)$$

Firm structural variables could have an effect on voluntary accounting disclosure in listed financial service companies in Nigeria. Moreover, firm performance variables could also have an effect on voluntary accounting disclosure and is posited to be a function of firm performance variables. Hence, it is presented econometrically as:

$$VDISL = F (PROF, LIQD, FAGE)------(ii)$$

Offer variables on the other hand, could have an Effect on voluntary accounting disclosure and hence, it can be shown econometrically as follows:

$$VDISL = F (FAS, ICT)------(iii)$$

Agency theory is all about “a contract under which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent” (Jensen and Meckling 1976). Agents correspond to managers, whereas principals correspond to shareholders from a companies’ perspective. The principal-agent relationship leads to

the information asymmetry menace in view of the fact that managers can access information more than shareholders (Jensen & Meckling, 1976). Voluntary disclosure is a means of mitigating information asymmetry in view of the fact that it reduces agency cost which results from a conflict between firm managers and shareholders. Thus, a corporate annual report is a mechanism for reducing information asymmetry. Agency theory argues that agents are not trustworthy. This theory has been widely used by accounting researchers to explain and understand voluntary disclosure phenomena in many countries with different social, political and economic background such as Cooke, (1989); Meek, Roberts and Gray, (1995) and Depoers, (2000).

According to agency theory, disclosing additional information by companies' managers on a voluntary basis tends to reduce the agency costs resulting from conflicts between companies' managers and shareholders. It also considers corporate annual reports disclosure as a mechanism to decrease information asymmetry between the company insider and outsiders (Hawashe & Ruddock, 2014). The theory further assumes that "agents are not trustworthy and if they can make themselves richer at the expense of their principals they will" (Ihejirika, Ofor, Akalazu & Ogbedeh, 2014). Agency theory was used by Lucy, Okoh and Nnaemeka, (2016) to underpin their study that relates to Forensic Accounting Services. Given the fact that it is a monitoring tool and managers have incentive to exercise discretion over accounting choice.

However, political cost hypothesis which was under the umbrella of positive accounting theory developed by Watts and Zimmerman (1978). The theory argues that larger firms rather than small companies are more likely to disclose more information and size is a proxy variable for political attention. This is because the actions of large

companies are so visible and stakeholders always equated absolute size with monopoly power. Therefore, listed financial service companies are among the very largest and most visible industry doing business in Nigeria. It has been stated according to political cost hypothesis that size has been stated specifically as a criterion for actions against companies. Moreover, political cost hypothesis suggests that superior firm incurs considerable less cost in disclosing additional information.

Furthermore, it is suggested according to agency theory that managers of profitable firm are most likely to disclose more information to show how best they fit in that capacity to the owners. On the other hand agency theory however, suggests that companies that are enjoying high liquidity ratio are disposed to disclose more information to distinguish themselves from those firms with lower liquidity. Moreover, Jensen and Meckling, (1976) affirm that agency costs are likely to increase with the proportion of external capital.

Notwithstanding, debt cost hypothesis argue that leverage is most likely to be associated with voluntary accounting disclosure. Therefore, leverage may influence the level of voluntary accounting disclosure. For instance a high ratio may contribute in improving disclosure policy for managers and encourage them to disclose more information to meet the shareholders' interest. As such managers are motivated to disclose more information in their financial statement to lower their costs and to shun away from creditors claim. Agency theory supports the disclosure to bridge information asymmetry. Albitar, (2015) points out that there are several theoretical grounds to assume that older firm are more likely to disclose more information than younger ones.

Based on equation (iii), in particular Forensic Accounting Services according to Cressey, (1978) as cited in Fisher, (2015) argues that there must be the reason behind anything people do and raised a question as to why people misbehave. It was argued that initially, people are accepting responsibilities of trust in good faith and later condition makes them violate trust. Cressey (1978) states that either pressure, opportunity or rationalization lead to the violation. Since engaging in forensic accounting services is an accounting choice, it is argued according to positive accounting theory that this may influence the disclosure of more accounting information.

Thus, in line with the aforementioned, organizations are assumed to disclose voluntary accounting information that relates to Forensic Accounting Services which will, in turn, instill confidence of the firm by stakeholders. Therefore, Forensic Accounting Services will effect on voluntary accounting disclosure of listed Financial Service Companies in Nigeria.

Innovation Diffusion Theory as proposed by Rogers, (1983) and Shy, (1997) in which they argue that five (5) attributes of innovations affect diffusion. Thus, relative advantage, compatibility, complexity, trialability and observability. Diffusion as noted by Rogers, (1983), is the process whereby innovation is passed through certain root over time among the members of a social system. Therefore, since ICT is in tandem with current norms and value and it offers improvements in comparison with reality, easy usage, room for trial before usage and gain are clear to all. Although it is not mandatory for a firm to disclose the extent to which they involve in ICT commitment, the disclosure of such information voluntarily in the company's annual report will strengthen confidence in stakeholders. Therefore, it is believed that ICT will affect

voluntary accounting disclosure of listed Financial Service Companies in Nigeria. This is due to the fact that ICT focused on “how new ideas or innovations are spread and adopted in an organization and attempt to explain how communication become a channel to a stakeholder. Dandago and Rufai, (2014) use this theory to underpin their study.

Therefore, as can be seen, voluntary accounting disclosure is hypothesized to be a function of firm attributes in equation one, two and three. Thus, voluntary accounting disclosure can be said to be a function of firm structural variables, firm performance variables and firm offer variables.

Consequently, since voluntary accounting disclosure is hypothesized to be a function of firm attributes in equation one, two and three. Then voluntary accounting disclosure can be said to be a function of structural variables, performance variables and offer variables. This is econometrically represented in equation (iv):

$$VDISL = F (LEVG, FSIZE, PROF, LIQD, FAGE, FAS, ICT)------(iv)$$

Conclusively, equation four will form the basis of arriving at the model of the study using balanced panel data of multiple regressions. This is econometrically represented as follows:

$$VDISL_{it} = \alpha_0 + \beta_1PROF_{it} + \beta_2LIQD_{it} + \beta_3LEVG_{it} + \beta_4FSIZ_{it} + \beta_5FAGE_{it} + \beta_6FAS_{it} + \beta_7ICT_{it} + \epsilon_{it}------(v)$$

Where:

VDISL =	Voluntary Disclosure Index
α_0 =	Constant
$\beta_1.. \beta_7$ =	Beta coefficient
i =	firm i
t =	time t

PROF =	Profitability
LIQD =	Liquidity
LEVG =	Leverage
FSIZ =	Firm size
FAGE =	Firm age
FAS =	Forensic Accounting Services
ICT =	Information and Communication Technology
€ =	Error term

2.6 Summary

This chapter starts with conceptualization of the study's variables to have clear picture of the research work. The expected effect between the dependent variable and the independent variables are pictorially shown. This is followed by approaches employed by accounting disclosure researches on which this work settles on voluntary information. The chapter further reviews previous voluntary accounting disclosure studies in order to establish gap that would be filled by the current study. Finally, the theoretical framework that underpins the research work is explicitly discussed and model build-up for this study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology used in the study in line with the research objectives. This includes procedure employed, research design, population and sampling technique, sources and method of data collection, a technique that was used in analyzing the data and measurement of the dependent and independent variables that is used in the study.

3.2 Research Design

Correlation research design is used to describe the statistical association between the dependent and explanatory variables of this study. It is considered most appropriate research design for this studies in view of the fact that it allow for testing of expected relationships between and among variables and the derivation of logical inferences regarding such relationships. Therefore, in the context of this study, the expected relationship is between firm attributes and voluntary accounting disclosure of listed financial service companies in Nigeria. The study involved seven (7) explanatory variables (profitability, liquidity, leverage, firm size, firm age, Forensic Accounting Services and Information and Communication Technology) against one dependent variable (voluntary accounting disclosure) in order to assess the extent of their effect.

3.3 Population and Sample Size

The population of the study includes all the fifty-five (55) listed financial service companies in Nigeria as at 31st December 2016 on the floor of the Nigerian Stock Exchange-NSE (see appendix C). Two filters ere applied to select the companies that satisfy the criteria. Firstly, a firm must be listed continuously on Nigerian Stock Exchange (NSE) from 2007 to 2016 and secondly, firm must have its financial statement available for the period under study.

However, after applying the first filter, eight (8) firms were removed (see appendix E) which reduced the population to forty seven- 47 (see appendix F). Fifteen (15) companies (see appendix G) were further dropped after application of the second filter. Hence, thirty two (32) firms (see appendix H) satisfied the criteria which form the sample for this study.

The sampled selection is based on Central Bank of Nigeria (CBN) categorization (see appendix D). The categories are five, where category A is for listed deposit money banks; category B is listed insurance companies; category C is for listed other financial institutions; category D is listed mortgage carriers companies and category E is listed micro finance companies.

In addition, after applying the first filter, none of the firm was removed in category A, four from category B, two from category C, one each from category D and E (see appendix E). After application of the second filter, none of the companies were removed from category A, eleven from category B, two from category C, one each from category D and E (See appendix G). Therefore, this study has four categories left after filtering out all listed companies from category E. As such, the categories left are category A, B, C, and D. In category A, all the firms fulfilled the criteria for the selection which are fourteen (14) in number, thirteen (13) from category B, two (2) from category C and three (3) from category D (see appendix H).

Thus, 32 out of 55 listed financial service companies in Nigeria have their financial statement within the study's scope (see appendix H). Therefore, the sample size for this study is thirty two (32). In addition, the major activities carried out by the

listed financial service companies in Nigeria are not limited to issuing loan to individual and corporate organizations, building houses, insurance services and accepting deposit.

3.4 Sources and Method of Data Collection

The study uses secondary sources for the data. Data of the dependent variable were arrived at via voluntary disclosure index checklist. A disclosure checklist has been used as a research instrument in numerous disclosure studies such as Buzby, (1974); Cooke, (1989); Qu, (2011); and Ibrahim, (2014). The checklist used for this study is shown in appendix B. The disclosure index can be mathematically shown as follows:

$$EOD = \frac{TD}{MD} = \frac{\sum_{i=1}^m di}{\sum_{i=1}^n dm}$$

Where:

EOD = Extent of Voluntary Disclosure

TD = Total Disclosure Score

MD = Maximum disclosure score for each company

di = Disclosure item i

m = Actual number of relevant disclosure items ($m \leq n$)

n = Number of items expected to be disclosed

Alternatively, EOD can be expressed as:

$$EOD = \frac{\text{Total number of items disclosed}}{\text{Total possible number of items to be disclosed}}$$

Data of the seven (7) explanatory variables were extracted from the Annual Reports and Accounts of the sampled listed financial service companies on the Nigerian Stock Exchange as at 31st December 2016.

This study adopts the checklist as used by Hossain and Hammami (2009), Qu (2011), Ibrahim (2014) with modification. This is in view of the fact that there is no agreed theory of the number and the selection of the items to include in a disclosure checklist as noted by (Wallace, Naser & Mora, 1994). Table 3.1 contains items considered in the disclosure check list. This study uses eleven items as disclosure check

list items. In each item, there are multiple items except for share price at accounting year end and information about future investment. Appendix (B) contained a detailed explanation on what each item in Table 3.1 constitutes.

Table 3.1: Disclosure checklist items

S/N	Items of Information
1	Financial highlights
2	Quantitative forecast of performance for the next year
3	Share price at accounting year end
4	Corporate social responsibility report
5	Corporate governance information
6	Performance trend for the past five years using graphs
7	Environmental liabilities and cost
8	Donations analysis
9	Risk management issues associated with the organization
10	Unclaimed dividend analysis
11	Information about future investments

Source: Compiled by the author, 2017

On the basis of the discussion in chapter two, this study uses the unweighted approach as used by Filsaraei and Azarberahman, (2016) for scoring. This means all items in this study have equal weight. Cooke, (1989) is the first scholar that proposes it and hence it is referred to as Cooke index.

3.5 Techniques of Data Analysis

Based on the data type and previous research studies, the study uses multiple regression technique as the major tool of data analysis which are performed using STATA statistical software. The study further analyses the data using various robustness tests such as multicollinearity, normality and Heteroskedasticity. These are performed to ensure that the independent variables are free from multicollinearity problem, the data are normally distributed and the variability in the error term is constant. The essence of these analyses is to improve the validity of all the statistical inferences that are made. Since the data have panel attributes, fixed and random effect

tests are performed out of which Hausman specification is run to give direction as to the one to adopt in the analysis. Fixed effect regression is suggested for the statistical analysis.

3.6 Variables Measurements and Model Specification

The measurements used in the study in relation to dependent and independent variables are given in table 3.2.

Table 3.2 Dependent and Independent variables measurement

Variables	Operationalization	Source	a priori
Voluntary Disclosure	Measured as an index which indicates that a firm is scored one (1) for an item disclosed in the annual report and zero (0) otherwise. The total voluntary disclosure index is then computed for each sample firm as a ratio of the total disclosure score to the maximum possible disclosure by the firm. The disclosure index for each firm is then expressed as a ratio.	Cooke, (1989), Ibrahim, (2014), Meek, Roberts & Gray, (1995), Albitar, (2015).	
Profitability	Return on Assets measured as the ratio of net profit after tax to total assets	Akbas & Canikli, (2014); Hossain, (2008), Hassan, (2013), Hassan & Bello, (2013), Shehata, Dahawy & Isma'il, (2014), Filsaraei & Azarberahman, (2016)	+
Liquidity	The ratio of current assets to current liabilities	Alfraih & Almutawa, (2014); Barako, (2007), Hassan & Bello, (2013), and Shehata, Dahawy & Isma'il, (2014)	-/+
Leverage	The ratio of total debts to total assets	Akbas & Canikli, (2014); Uyar, Kilic & Bayyurt, (2013), Syed, (2014), Hassan & Bello, (2013); Alfraih & Almuatawa, (2014); and Filsaraei & Azarberahman, (2016)	+
Firm Size	Log of total assets measured at book value of non-current assets plus current assets	Ayila (2015); Barako, (2007); Hassan & Bello, (2013), Alfraih &	

		Almutawa, (2014); Ibrahim, (2014); Akbas & Canikli, (2014), and Filsaraei & Azarberahman, (2016)	+
Firm age	Log of number of years that have passed since incorporation	Hassan & Bello, (2013); Akbas & Canikli, (2014); Alfraih & Almuatawa, (2014); Shehata, Dahawy & Isma'il, (2014), and Albaitar, (2015)	+
Forensic Accounting Services	The study dichotomized between 1 and 0. One was used for firm that has information related to Forensic Accounting Services and 0 otherwise	Kamaruddeen, (2016), Saifullahi & Hassan, (2016)	+
ICT	ICT cost as measured by its expenditure divided by total assets	Aduda & Kingoo, (2012), Bovee, Ettredge, Srivastava, & Vasarhelyi, (2002), Da-Silva & Chrtensen, (2004), Binuyo & Aregbeshola, (2014), Moya, Akodo, Mukooza, Kaliba & Mbarika, (2012)	+

Source: Compiled by the author, 2017

The model used emanates from structural, performance and offer variables as explained in chapter two. It is assume that voluntary disclosure is the function of structural, performance and offer variables as show below:

For structural variable:

$$\text{VDISL} = F(\text{LEVG}, \text{FSIZ}) \text{-----} \text{(i)}$$

For performance variables:

$$\text{VDISL} = F(\text{PROF}, \text{LIQD}, \text{FAGE}) \text{-----} \text{(ii)}$$

For Offer variables:

$$\text{VDISL} = F(\text{FAS}, \text{ICT}) \text{-----} \text{(iii)}$$

The aggregations of the three categories are show below:

$$\text{VDISL} = F(\text{LEVG}, \text{FSIZE}, \text{PROF}, \text{LIQD}, \text{FAGE}, \text{FAS}, \text{ICT}) \text{-----(iv)}$$

The final model is econometrically represented as follows:

$$\text{VDISL}_{it} = \alpha_0 + \beta_1 \text{PROF}_{it} + \beta_2 \text{LIQD}_{it} + \beta_3 \text{LEVG}_{it} + \beta_4 \text{FSIZ}_{it} + \beta_5 \text{FAGE}_{it} + \beta_6 \text{FAS}_{it} + \beta_7 \text{ICT}_{it} + \epsilon_{it} \text{----- (v)}$$

3.7 Summary

This chapter explains the research methodology of the study. It starts by explaining the research design followed by the population of the study, sample drawn from the population as well as the sampling technique adopted. Method and sources of data collected for the study are also explained. The chapter continues with the technique of data analysis. In order to have better understanding of the research work, variables used in the study are explicitly defined and their measure.

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

Descriptive and inferential statistics of the data collected for the study are analyzed, discussed and interpreted in this chapter. The descriptive statistics of the variables are discussed first, and then correlation matrix of the variables. This is followed by the analysis, interpretation, and discussion of the regression results and test of hypotheses of the study. The discussion of the major findings of the study and the policy implications of the findings are the last discussion under this chapter.

4.2 Descriptive Statistics

Descriptive statistics of the dependent and independent variables are presented in table 4.1. This includes mean value, standard deviation, minimum value, maximum value, skewness and kurtosis of all the variables used in the study.

Table 4.1: Summary of Descriptive statistics of the variables

Variables	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis	N
VDISL	0.551	0.217	0.146	0.922	-0.267	1.974	320
PROF	0.070	0.135	-0.052	0.924	4.460	26.225	320
LIQD	0.628	0.261	0.118	0.897	-0.582	1.657	320
LEVG	0.040	0.098	0.012	0.783	6.597	45.238	320
FSIZ	3.395	0.482	2.485	3.989	-0.094	1.547	320
FAGE	33.300	15.035	12.000	54.000	0.198	1.328	320
FAS	0.794	0.405	0.000	1.000	-1.452	3.108	320
ICT	0.094	0.175	0.000	0.924	3.301	14.025	320

Source: Stata Output, 2017

Table 4.1 elaborates voluntary accounting disclosure practices in listed financial service firm's annual reports in Nigeria. The average voluntary accounting disclosure for the listed financial service companies in Nigeria is 0.551 with a standard deviation of 0.217 signifying that the data deviate from the mean value by 0.217. From the results, it can be deduced that there is no wide dispersion between the mean and the standard deviation. Thus,

from the mean and standard deviation it can be inferred that the data points are close to the average and their responses are fairly uniform. However, the mean value indicated that the average disclosure of voluntary information in the financial statements of the listed financial service companies in Nigeria is 55%. This means, majority of them are disclosing voluntary information in their annual reports and accounts. This is attributed to the fact that they are in the same line of business which is financial services and are likely to have many features in common. The tables, however, reveal that the minimum voluntary accounting disclosure is 0.146 with a maximum of 0.922 (approximately 15% and 92% respectively). The low voluntary information in the body of financial reports of some listed financial service companies in Nigeria could be explained on the basis that this type of information is non-mandatory. Moreover, the coefficient of Skewness -0.267 implies that the data is negatively skewed and do not meet the condition of being symmetrically distributed which suggests a value of zero (0) for Skewness. The kurtosis of 1.974 implies that the data does not meet a Gaussian distribution which suggests a value of 3 for kurtosis.

Profitability as one of the proxies has the mean average of 0.070 with a standard deviation of 0.135. This suggests that there is wide variation between the profits of listed financial service companies in Nigeria. However, it can be inferred that the data points are not close to the average and the data responses are not fairly uniform. This is because some of the financial service companies are bigger than others in terms of capital based, expertise, among others. The descriptive statistics, however, shows that there are a minimum and maximum profitability of -0.052 and 0.924 respectively. This implies that some of the sample companies reported losses in some years considered by this study with a minimum loss of -0.052 and a maximum profit of 0.924. Moreover, the coefficient of Skewness 4.460

implies that the data is positively skewed, and thus, the data do not meet the symmetrical distribution, which suggests a value of zero (0) for Skewness. The kurtosis value of 26.225 also shows that the values do not meet a Gaussian distribution of 3 for kurtosis.

The summary statistics with respect to liquidity for the average is 0.628 with a standard deviation of 0.261. This shows that there is no wide variation between the mean and the standard deviation. As such, it can be deduced from the mean and standard deviation that the data points are close to the average and the data responses are fairly uniform. From the dispersion, however, it can be inferred that listed financial service companies on the average maintain the level of their liquidity of 0.628. The descriptive also shows that the sample firms have a minimum and maximum liquidity of 0.118 and 0.897 respectively. This implies that some of the listed financial service companies in Nigeria have a minimum liquidity of 0.118 which can be perceived as too small and may likely be a factor why some companies reported loss in some of the financial years. The coefficient of Skewness -0.582 implies that the data is negatively distributed and therefore may not perfectly conform to the symmetrical distribution requirement of zero skewness. Moreover, the coefficient of Kurtosis of 1.657 indicates that the liquidity variable does not meet the Gaussian distribution criterion of three for kurtosis.

From the table, the mean value for the leverage is 0.040 and has a standard deviation of 0.098. Based on the average and standard deviation, it can be inferred that the data responses are not fairly uniform. From the result, it can be deduced that listed financial service companies in Nigeria maintain leverage on the average of 0.040. It is also shown from the table that the minimum leverage among the listed financial service companies in Nigeria is 0.012 with a maximum of 0.783. This indicates that some of the sample firms

have a very minimal debt compared to shareholders contribution, whereas some have a substantial part of their capital being sourced from the third party. However, the coefficient of skewness 6.597 implies that the data is positively skewed and as such do not conform to the symmetrical distribution requirement of zero. Meanwhile, from the result, it is indicated that the leverage variable has a coefficient kurtosis of 45.238 which does not conform with Gaussians distribution criterion of 3.

From the descriptive statistics in table 4.1, it can be observed that the average firm size of the listed financial service firms in Nigeria stood at 3.395 with a standard deviation of 0.482 which implies a wide range of variation with the mean. This implies that the listed financial service companies in Nigeria differ in terms of the way their assets are financed. It can be seen from the result that it has a minimum of 2.485 with a maximum of 3.989. This implies that the maximum total assets for the listed financial service companies in Nigeria are over 3.000. The result shows that there is -0.094 coefficient of skewness which is negatively skewed and violates the assumption of symmetrical distribution requirement of zero skewness. On the other hand, it equally has a 1.547 coefficient of kurtosis which is higher than the provision of Gaussians distribution criterion of 3 for kurtosis.

It can, however, be observed from the result of descriptive statistics for firm age shows an average and standard deviation of 33.300 and 15.035 respectively. This implies that the average age of the listed financial service companies in Nigeria since incorporation is 33 years. From the result, the standard deviation of approximately 15 years indicates a wide range of variations with the mean. This implies that the difference in terms of number of years for being an entity is much. Moreover, the result shows a minimum number of years among the listed financial service companies in Nigeria of 12 years with maximum years of

54 from the date of incorporation to 2016. There is also a coefficient of skewness and kurtosis of 0.198 and 1.328 respectively which indicate that the latter does not conform to the Gaussians distribution criterion of 3 for kurtosis and the former failed to satisfy the symmetrical distribution requirement of zero skewness.

In the same vein, Forensic Accounting Services has an average of 0.794 with a standard deviation of 0.405. This implies that majority of the listed financial service companies in Nigeria capture information related to Forensic Accounting Services and the standard deviation indicate that the responses of the data points are fairly uniform because the variability is small. It is also revealed from the descriptive statistics that the minimum disclosure of Forensic Accounting Services is zero (0) with a maximum of one (1). This indicates that some of the listed financial service companies in Nigeria are not disclosing Forensic Accounting Services information while others are doing so. The coefficient of skewness of -1.452 implies that the data of the independent variable (Forensic Accounting Services) is negatively skewed which does not conform to the symmetrical distribution of zero skewness. Moreover, the coefficient of kurtosis 3.108 shows that the data do not conform to Gaussians distribution criterion of three (3) for kurtosis.

In table 4.1 it is revealed that descriptive statistics of ICT shows an average cost incurred in ICT of 0.094 with a standard deviation of 0.175. This implies from the standard deviation that the responses of the data are not fairly uniform in view of the fact that the variation is large. This may likely be as a result of the nature of the services rendered by some of the companies considered in this study for example listed deposit money banks and listed mortgage careers companies. It can be deduced from the descriptive also that the minimum ICT cost is zero (0) with a maximum 0.924. It can be inferred that some of the

firms do not spend anything in terms of ICT cost for some of the years considered by this study. The ICT as a variable has a coefficient skewness of 3.301 which indicates that it does not conform to the symmetrical distribution of zero (0) skewness while coefficient kurtosis has 14.025 kurtosis which equally failed to satisfy the Gaussians distribution criterion assumption of three (3) kurtosis for normal data.

4.3 Normality Test

Having done the analysis of the descriptive statistics of the data collected for the variables of the study, the result to a large extent suggests that the data are not normally distributed. As such, the study adopts Shapiro-Wilk test to find statistical evidence as to whether the data of the variables for this study follow the normal curve or not. The results of data normality test of the variables are presented in Table 4.2:

Table 4.2 Normality test result

Variables	W	V	Z	P-Values	N
VDISL	0.825	39.533	8.658	0.000	320
PROF	0.278	162.989	11.994	0.000	320
LIQD	0.878	27.640	7.816	0.000	320
LEVG	0.674	73.510	10.119	0.000	320
FSIZ	0.492	114.629	11.165	0.000	320
FAGE	0.743	58.051	9.563	0.000	320
FAS	0.074	208.905	12.578	0.000	320
ICT	0.292	159.745	11.946	0.000	320

Source: Stata Output, 2017

The study used a Shapiro-wilk test to check for the data normality in view of the fact that it is the most powerful normality test as noted by Mendes and Pala (2003), Keskin (2006), Razali and Wah (2011). Therefore, in determining the normality of the data, null hypothesis principle is used in the Shapiro-Wilk (W) test, that the data are normally distributed is tested. From the table, the data are not normally distributed and as such, null hypothesis (that the data is normally distributed) is rejected. According to Torabil,

Montazeri and Grane (2016) the null is rejected for small values. The inferential statistics of the data collected are presented and interpreted subsequently.

4.4 Pearson Correlation Coefficient Matrix

It is necessary to know the correlation among the independent variables. This will give room to ascertain the direction of movement among the variables. Therefore, the Pearson correlation matrix is presented in table 4.3.

Table 4.3: Pearson Correlation Coefficient Results

Variables	VDISL	PROF	LIQD	LEVG	FSIZ	FAGE	FA	ICT
PROF	0.273* 0.000	1.000						
LIQD	-0.393* 0.000	0.060 0.287	1.000					
LEVG	0.505* 0.000	-0.109 0.052	-0.347* 0.000	1.000				
FSIZ	0.419* 0.000	-0.035 0.536	0.060 0.285	0.298* 0.000	1.000			
FAGE	0.082 0.142	0.075 0.178	0.393* 0.000	0.012 0.829	0.512* 0.000	1.000		
FAS	-0.348* 0.000	0.009 0.873	0.041 0.464	-0.168* 0.003	-0.667* 0.000	-0.558* 0.000	1.000	
ICT	-0.068 0.224	-0.054 0.333	-0.186* 0.001	-0.304* 0.000	-0.294* 0.000	-0.282* 0.000	-0.036 0.524	1.000

Note: * indicates significant at 1%

Source: Stata Output, 2017

Table 4.3 shows that voluntary accounting disclosure is 0.273 which strongly and positively correlated with profitability and significant at 1% level of acceptance. This signifies that as the voluntary accounting information increase by 1%, profit will increase by 0.273 for the listed financial service companies in Nigeria. The table also shows the correlation coefficient between voluntary accounting disclosure and liquidity of -0.393 with significant acceptance level of 1%. Thus, from the result, there is a strong negative correlation between the voluntary disclosure and liquidity. However, if voluntary accounting disclosure increase by 1%, liquidity will decrease by -0.393 indicating that those firms with low liquidity are likely not to disclose more voluntary information.

Leverage is strongly and positively associated with voluntary accounting disclosure of listed financial service firms in Nigeria and significant at 1% level of confidence with a p-value of 0.000. This signifies that increase in voluntary accounting disclosure results by 1% will lead to increase in leverage by 0.505 of the listed financial service companies in Nigeria. The result from the table, however, indicates that there is a strong and positive correlation between the level of voluntary accounting disclosure and firm size from the correlation coefficient of 0.419 which is significant at 1% level. This implies that as firm assets increase by 0.419, equally the level of voluntary accounting disclosure increase in the listed financial service companies in Nigeria by 1%. The table also show strong and positive correlation between voluntary accounting disclosure and firm age with a correlation coefficient of 0.082 which is not significant at all level of acceptance. This implies that as a number of years in the business increase for the sample firms, the level of voluntary accounting disclosure decrease.

It is shown from table 4.3 that there is a positive relationship between voluntary accounting disclosure and Forensic Accounting Services with -0.348 but significant at 1% level of acceptance with p-value of 0.000. Moreover, from the result, it has been established that there is a strong and negative correlation between voluntary accounting disclosure and ICT with -0.068 which is not significant at all level of acceptance.

It is revealed from the result that the correlation among the explanatory variables shows a positive and negative relationship. In the result, profitability and liquidity; profitability and firm age; and profitability and Forensic Accounting Services show positive correlation which is not significant at all level of acceptance. The extent of the correlation among them is 0.060, 0.075 and 0.009 respectively. On the contrary,

profitability and leverage; profitability and firm size; profitability and ICT shows a negative relationship in which all the correlation is not significant at all level of acceptance. The extent of the relationship ranges from -0.109, -0.035 and -0.333 respectively.

It is however revealed that liquidity and firm size, liquidity and firm age, liquidity and Forensic Accounting Services shows a positive correlation in which liquidity and firm age is significant at 1%. The extent of the correlation among them is 0.060, 0.393 and 0.041 respectively. In contrast, liquidity and leverage; liquidity and ICT; liquidity and ICT are negatively related. The extents of the correlation among them are -0.347 and -0.186 respectively.

Moreover, leverage and firm size, leverage and firm age are positively related to which leverage and firm size is significant at 1%. The extent of the correlation is 0.298 and 0.012 respectively. In the same vein, leverage and Forensic Accounting Services, leverage and ICT are negatively related to which leverage and each of the explanatory variable are significant at 1% and the extent of the correlation is -0.168 and -0.304 respectively.

However, firm size and firm age have positive correlation which is significant at 1% level of acceptance. Conversely, firm size and Forensic Accounting Services, firm size and ICT are negatively correlated where firm size and the two independent variables are significant at 1%. The extent of their correlation is -0.667 and -0.294 respectively.

Moreover, firm age and Forensic Accounting Services as well as firm age and ICT have negative correlation which is significant at 1% level of acceptance. On the contrary, firm age and ICT have a negative correlation but significant at 1%. The extent

of the correlation is -0.558 and -0.282 respectively. However, the correlation among the explanatory variables would not pose any problem to our analysis and that there is no presence of serious multicollinearity among the regressors despite the negative correlation of some independent variables. This is due to fact that none of the variables reached the threshold of 0.8 as suggested by Hair, Black, Babin and Anderson (2010). Moreover, correlation does not measure causation, further analysis is performed using regression analysis.

4.5 Robustness Test

The following robustness tests are performed to find out whether the data used for analysis which is performed for interpretation is reliable.

4.5.1 Test for multicollinearity

Multicollinearity is examined using tolerance value and variance inflation factor (VIF) values. The result of multicollinearity test is shown in Table 4.4.

Table 4.4: Multicollinearity test result

Variables	VIF	1/VIF
PROF	2.64	0.379
LIQD	2.30	0.435
LEVG	2.19	0.457
FSIZ	1.56	0.640
FAGE	1.52	0.658
FAS	1.47	0.680
ICT	1.03	0.973
Mean VIF	1.82	

Source: Stata Output, 2017

It is vital to note that for multicollinearity to be present the regressors must produce a VIF value of more than 10 and the inverse VIF, it must be less than 0.1. This means multicollinearity is not present between the explanatory variables considered in this study in view of the fact that all the VIF are less than 10 and tolerance values are above 0.10 (rule of thumb). This, therefore, goes in agreement with the assumption of

classical regression model which states that there should not be multicollinearity among the regressors included in the model and hence, the research findings can be interpreted with confidence.

4.5.2 Test for Heteroskedasticity

Heteroskedasticity test is performed to find out whether the disturbances appearing in the population regression function are homoscedastic (same variance). Breusch-Pagan/Cook-Weisberg test for Heteroskedasticity is performed. The result is presented in Appendix (A) produces the value of chi square of 4.90 while its probability is 0.0268 which is significant at 5%. This indicates the presence of Heteroskedasticity. To address this, robustness test is run. The result of the test, as detailed in appendix (A) reveals that the model can be relied upon for drawing statistical inferences.

4.5.3 Fixed and Random Effect Tests

Considering the panel attributes of the study, fixed and random effect tests are performed. The results of the tests are presented in appendix (A). Hausman specification test is performed to give direction as to the one (fixed or random) to choose, the result of which reveals chi-square of 36.12 which is significant at 1%. On this basis, the result for fixed effect test is used for analysis and derivation of logical inferences.

4.6 Test of Hypotheses

The result of the hypotheses testing is presented in table 4.5.

Table 4.5: Summary of Regression result

Fixed Effect Model	
Variables	Statistics
R ² within	0.6323
R ² between	0.0240
R ² overall	0.1241
F-Stat	69.03
Prob>F	0.0000
Hausman Specification test:	
Hausman Chi2 = 36.12	
Prob>Chi2 = 0.0000	

Source: Stata Output, 2017

Presented in table 4.5 is the regression result summary. The R² which is the multiple coefficients of determination gives percentage or proportion of total variation in the dependent variable (Voluntary Accounting Disclosure) which is jointly explained by the independent variables. The interpretation is based on R² within according to Hair, et. al. (2010). Hence, the result of R² of 0.6323 signifies that 63.23% of total variation in Voluntary Accounting Disclosure of listed financial service companies in Nigeria is explained by profitability, liquidity, leverage, firm size, firm age, Forensic Accounting Services and information and communication technology while the remaining 36.77% is caused by other factors not captured in the model.

The cumulative result holds sway as the F-statistics has a value of 69.03 which is significant at 1%. This means that the model is fitted with the variables selected. It further means that the selected variables are among the firm attributes that effect on voluntary accounting disclosure of the listed financial service companies in Nigeria. In line with the aforementioned, table 4.6 presents robustness tests result performed on the data of the listed financial service companies in Nigeria.

Table 4.6: Robustness regression result

Variables	Coefficients	P-Value
PROF	1.345	0.000
LIQD	-0.251	0.000

LEV	0.439	0.000
FSIZ	0.614	0.002
FAGE	1.961	0.000
FAS	0.018	0.000
ICT	1.095	0.000
Cons	-5.415	0.000

Source: Stata Output, 2017

4.6.1 Profitability and Voluntary Accounting Disclosure

The study tests the hypotheses formulated for the study, in view of the robustness of the results, which can be considered as best linear unbiased estimators. Table 4.6 presents the coefficients of the explanatory variables for the study from which the hypotheses are tested. From the result, profitability has a significant positive effect on voluntary accounting disclosure of listed financial service companies in Nigeria as indicated by the coefficient of 1.345 which is significant at 1% from its P-value of 0.000. Therefore, the study rejects the null hypothesis which states that profitability has no significant effect on the voluntary accounting disclosure of listed financial service companies in Nigeria. The result is consistent with that of Hossain, (2008), Agyei-Mensah, (2012), Soliman, (2013), Alfraih and Almutawa, (2014), Ogwe, (2014) and contrary to Rouf, (2011) and Ibrahim, (2014) findings that report contradictory relationship. The positive and significant effect of firms' profitability on voluntary accounting disclosure is also in tandem with the argument of Meek, Roberts and Gray, (1995) and Hossain and Hammami, (2009) that profitability is positively affect voluntary accounting disclosure.

Also according to Wang, *et al*, (2008), as the firms' profit increase, managers have incentives to supply more information to the market in order to signal quality. Hence, companies with a good performance feel satisfied by the social contract to disclose voluntarily their activities and results. Akerlof, (1970) points out that a well-

functioning firm, their profit is on the high side compared to its rivals. Ross, (1977) emphasises that information asymmetry among investors and managers reduced as well as agency cost through increased disclosure.

4.6.2 Liquidity and Voluntary Accounting Disclosure

The results indicate a significant negative effect of liquidity on the level of voluntary accounting disclosure of listed financial service companies in Nigeria. This is evident from the coefficient of -0.251 which is significant at 1% from the p-value of 0.000. This implies that higher liquidity contributes negatively in improving the level of voluntary accounting disclosure of listed financial service companies in Nigeria. As such, the study, therefore, rejects the null hypothesis which states that liquidity has no significant effect on the voluntary accounting disclosure of listed financial service companies in Nigeria.

The study, therefore, infers that liquidity has significant negative effect on the voluntary accounting disclosure of listed financial service firms in Nigeria during the period covered by this study. The result is consistent with the work of Uyar, *et al*, (2013), and Alfraih and Almutawa, (2014) and contradicts Barako, (2007), Hawashe, (2014), Shehata, Dahawy and Ismail, (2014), Albitar, (2015). The result is also in line with agency theory which argues that companies with lower liquidity tend to disclose more information in order to reduce the conflict between creditors and shareholders (Abd-Elsalam, 1999). Conversely, the result is in contrast with signaling theory that argues that companies with high liquidity ratio are disclosing more information to separate themselves from firms with lower liquidity ratio as noted by Albaitar, (2015).

Barako, Hancock and Izan, (2006) fail to support either of those theories as they discover no relationship between liquidity and voluntary accounting disclosure.

It is, however, vital to note that companies with weak liquidity may prefer to disclose additional information to state the justification for such condition and prove to investors of its short-term nature which signal their better position. Also, demand for information is assumed to increase when liquidity is lower.

4.6.3 Leverage and Voluntary Accounting Disclosure

The results from the table, however, shows that leverage has a positive and significant effect on the voluntary accounting disclosure of listed financial service companies in Nigeria, from the coefficient of 0.439 which is significant at 1% levels of acceptance from the p-value of 0.000. This means that as leverage increased, voluntary accounting disclosure equally increases. Therefore, leverage and voluntary disclosure move in the same direction. Based on this evidence, the study rejects the null hypothesis which states that leverage has no significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria.

The result supports the findings of Mitchell, Chia and Loh, (1995), Hossain, Perera and Abdul-Rahman, (1995), Robbins and Austin, (1986), Kolsi (2012), Haji and Ghazali, (2013), Juhmani, (2013) that shows a positive effect of leverage on voluntary disclosure. Conversely, studies by Chow and Wong-Boren, (1987), Mckinnon and Dalimunthe, (1993), Ahmed and Courtis, (1999) and Aitken, Hooper and Pickering, (1997), Meek, Roberts and Gray, (1995), Celik, Ecer and Karabacak, (2006), Barako, (2007), Allegrini and Greco, (2011), Nandi and Ghosh, (2012), Bhayani, (2012), Ogwe, (2014) shows a significant negative effect of leverage on voluntary accounting

disclosure. Nevertheless, some previous studies perhaps reported no effect of leverage on voluntary accounting disclosure such as Aksu and Kosedag, (2006), Ayila, (2015), Barako, (2007).

This result is in tandem with agency theory which suggests that the level of disclosure increases as the leverage of the firm grows and higher leverage is associated with higher agency costs. Moreover, it may enhance the extent of disclosure policy for the management and give them strength to disclose more information so as to meet with the investors' interest. In the same vein, Ahmed and Nicholls, (1994) argue that in countries where financial institutions (like Nigeria) are the primary source of company funds, there is an expectation that firms which have large sums of debt on their statement of financial position, will disclose more information in their annual reports.

4.6.4 Firm Size and Voluntary Accounting Disclosure

Firm size as indicated in table 4.6 has a positive and significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria considering the coefficient of 0.614 and p-value of 0.002 which is significant at 1%. This suggests that firm size has a direct effect on the level of voluntary accounting disclosure of listed financial service companies in Nigeria. Thus, based on statistical evidence, this study rejects the null hypothesis which states that firm size has no significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria. This implies that as firm size increases, voluntary accounting disclosure of the sampled firms also moves in the same direction.

As such, this result corroborates the findings of Singhvi and Desai, (1971), Cooke, (1989), Eng and Mak, (2003), Celik, Ecer and Karabacak, (2006), Wang, Sewon

and Claiborne, (2008), Zadeh & Eskandari, (2012), Soliman, (2013) and Ogwe, (2014). This positive significant effect of firm size on voluntary accounting disclosure of listed financial service companies in Nigeria can be explained by the fact that larger firms make a more extensive use of the capital markets and have a greater number of analysts following them as noted by (Lang & Lundholm, 1993). Furthermore, firms that feel more observed tend to increase the level of disclosure to keep their reputation and ensure their survival. This result supports the argument as buttressed by Singhvi and Desai, (1971) that large firms usually disclose more information, compared to smaller companies, in view of the fact that larger firms have lower information generation costs and a wider ownership distribution, as such they are obliged to disclose more information.

However, the findings are in line with agency theory that amount related to outside financing are expected from larger companies and its incentive to disclose more accounting information voluntarily should be higher (Jensen & Meckling, 1976). On the contrary, Naser, Alkhatib and Karbhari, (2002) and Akhtaruddin, (2005) report that larger companies are not disclosing voluntary information which means that the relationship is negative.

4.6.5 Firm Age and Voluntary Accounting Disclosure

From table 4.6 it is established that there is positive and significant effect of firms' age on voluntary accounting disclosure of listed financial service companies in Nigeria. This is evident from the coefficient of 1.961 with a p-value of 0.000, which is significant at 1% level of acceptance. This implies that the level of voluntary accounting disclosure is affected by the firm age of the listed financial service companies in Nigeria.

Based on this, the study rejects the null hypothesis which states that firm age has no significant effect on voluntary accounting disclosure of listed financial service firms in Nigeria. The study infers from the result that firm age in the listed financial service companies in Nigeria has contributed towards voluntary accounting disclosure during the period covered by this study.

The result corroborates the studies of Owusu-Ansah, (1998 & 2005), Soliman, (2013), Hawashe, (2014) and Bhasin, *et al*, (2012) that report positive and significant effect of firm age on voluntary accounting disclosure. Notwithstanding, it is in contrast with Bushee, *et al*, (2003), Akhtaruddin, (2005), Hossain and Reaz, (2007), Hossain, (2008), Galani, *et al*, (2011) and Zadeh and Eskandari, (2012) that reports negative relationship. The results contradict that of Bhayani, (2012) who reports that firm age has no significant effect on the voluntary accounting disclosure.

4.6.6 Forensic Accounting Services and Voluntary Accounting Disclosure

The result reveals that Forensic Accounting Services has positive and significant effect on voluntary accounting disclosure of the listed financial service companies in Nigeria. This is evident from a coefficient of 0.018 with a p-value of 0.000 which is significant at 1% level of acceptance. This implies that as Forensic Accounting Services increase, likewise voluntary accounting disclosure increases. Based on the statistical evidence the study rejects the null hypothesis that there is no significant effect of Forensic Accounting Services on voluntary accounting disclosure of listed financial services companies in Nigeria. Thus, Forensic Accounting Services contributes towards voluntary accounting disclosure.

The result is consisted with the work of Okoye and Gbegi, (2013), Eliezer and Emmanuel, (2015), Popoola, Che-Ahmea and Samsudin, (2014) who document that

forensic accounting services significantly reduces the occurrences of fraud. Moreover, the result corroborates the findings of Enofe, *et al.*, (2016) that forensic accounting services increase the extent of relevance, faithful and understandability of the financial statement. On the contrary Saifullahi and Hassan, (2016) report that institutional shareholding does not influence forensic accounting services. Notwithstanding, Wadhwa and Pal, (2012) report that forensic accounting services is still at crawling stage in India due to lack of expertise.

4.6.7 Information and Communication Technology and Voluntary Accounting Disclosure

According to the fixed effect result, there is evidence of positive and significant effect of ICT on voluntary accounting disclosure of listed financial service companies in Nigeria. This is proved from the coefficient of 1.095 which is significant at 1% with a p-value of 0.000. This can be explained that as ICT increase, voluntary accounting disclosure equally increases. As such, this study rejects the null hypothesis that there is no significant effect of ICT on voluntary accounting disclosure of listed financial service companies in Nigeria. It can be inferred from the result that ICT contributes positively towards voluntary accounting disclosure of listed financial service companies in Nigeria.

The result is in line with the findings of Dandago and Rufai, (2014) that Information Technology has improved the provision of the quality of accounting information. Also, Nwanyanwu, (2016) document that ICT influence significantly the accounting system in Nigeria. On the other hand, Muhammad, Mukhtar and Sani, (2013) report that ATM usability and e-banking services are insignificant with bank

performance. Imeokparia, (2013) finds that information technology enhances accuracy, reliability, relevance and completeness of financial reports.

4.7 Policy Implications of the Findings

This study has theoretical, practical and regulatory implications which represent contributions of the study. As such, it is expected to benefit the existing knowledge in the accounting research, providers of accounting services as well as regulators.

The findings of this study has vital policy implication since it suggests the need to encourage voluntary accounting disclosure by listed financial service companies in Nigeria. These can be done by ensuring that all information that will make stakeholders convinced with firms' activities especially those companies reporting higher profit. This is because the industry operates in an environment that is highly competitive and can be easily overtaken by other competitors. This suggests however that similar efforts in other sectors can be made to ensure reliability and transparency in their financial statement.

The analysis reveals that profitability, leverage, firm size, firm age, Forensic Accounting Services and ICT positively affect voluntary accounting disclosure of listed financial service companies in Nigeria. The implication of this is that these explanatory variables have the tendency to motivate listed financial service sector to disclosure more information in their financial statement voluntarily. This is due to the fact that it will earn the companies goodwill (that is good reputation) and high rating in the capital market. The goodwill and high rating make it easier for the companies to source funds from the capital market, apply such funds to make a good profit and instill confidence in the minds of stakeholders. Furthermore, the good reputation attracts talented employees

who can bring good innovative strategies and execute actions that will enhance voluntary accounting disclosure habit. Policy makers especially the management in listed financial service companies must, therefore, bear this relationship in mind when making policies related to these explanatory variables, looking at their effect on voluntary accounting disclosure.

Furthermore, liquidity has negative and significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria. This implies that firms in the listed financial service sector will have to look at the level of their liquidity. This is in view of its negative effect on voluntary accounting disclosure as evident from the findings of the study. However, keeping too many liquid assets will constitute a cost to the organization which by extension will adversely affect voluntary accounting disclosure. When liquid assets are held for a long time, they tie down capital which would have been used to give room for the disclosure of accounting information voluntarily.

The findings of this study can have implications for users of accounting information, bearing in minds that voluntary disclosure is very vital for the progress of the industry. Specifically, users should know the influence of the structural, performance and offer variables considered in this study on the voluntary accounting disclosure. Conclusively, the findings of this study shed more lights on firm attributes and voluntary accounting disclosure studies, particularly listed financial service companies in Nigeria.

However, the findings shed more lights on firm attributes and voluntary accounting disclosure studies in Nigeria which does not stop at the listed financial

service industry, rather other sectors can equally adopt voluntary accounting disclosure practices. This is in view of its effect on the key indices in a corporate organization like profitability, liquidity, leverage, firm size, firm age, forensic accounting services and ICT. Students and other researchers can take this study and look at other sectors of the economy with the aim to find out the extent of their effect on other sectors.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The study examined the effect of firm attributes on voluntary accounting disclosure of listed financial service companies in Nigeria. The first five firm attributes (that is profitability, liquidity, leverage, firm size, and firm age) were selected from literature while the last two attributes (that is Forensic Accounting Services and Information and Communication Technology) which this study failed to establish previous studies using them against voluntary accounting disclosure used them as variable inclusion gap. Firm attributes in this study are the explanatory variables while voluntary accounting disclosure is the dependent variable. The study used the variables to establish the extent of their effect on the listed financial service companies in Nigeria and hypothesized that the explanatory variables have no significant effect on the voluntary accounting disclosure. The study covered ten (10) years period from 2007 – 2016.

Conceptualization of all the variables were discussed and their construct alongside with operational definition. Empirical studies were reviewed for all the variables in terms of their effect on voluntary accounting disclosure. Three theories (agency theory, Positive accounting theory and innovation diffusion theory) that underpin the study were discussed as well as model build up. However, the research design was correlational. Fifty-five (55) listed financial service companies in Nigeria were considered as population of the study. It was further filtered to capture only those firms with the availability of annual report and listed as per the scope of the study which the study arrived at thirty-two (32) listed financial service companies in Nigeria.

Secondary data were obtained from the websites of the studied firms and the Nigerian Stock Exchange fact book over the period of ten (10) years from 2007 to 2016. Multiple panel regression technique was employed. Fixed and random effects tests were performed. The Hausman specification test suggested fixed effect regression which was eventually used for data analysis.

Analysis of the data was done using regression analysis anchored through STATA software. Descriptive statistics were analyzed. The correlation of the various variables was examined. After several robustness tests were performed, regression result was discussed. The results indicated that profitability, leverage, firm size, firm age, forensic accounting services and ICT have a positive and significant effect on voluntary accounting disclosure while liquidity has a negative and significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria. The F-statistics (significant at 1%) revealed that the model was well fitted while the R^2 showed that 63.23% of variation in voluntary accounting disclosure which is jointly explained by the predictor variables (that is, profitability, liquidity, leverage, firm size, firm age, Forensic Accounting Services and ICT).

However, the finding is in line with all the theories used in this study. Agency theory argues those profitable, high liquid, levered, bigger and older firms are likely to disclose additional information. Forensic accounting service and information and communication technology are all choice variables as buttressed by positive accounting theory and innovation diffusion theory.

5.2 Conclusions

On the basis of the findings, discussion and analysis in the preceding chapter, the following conclusions were made.

First, the study provided empirical and statistical evidence on the significance of the seven explanatory variables that constitute firm attributes (Profitability, liquidity, leverage, firm size, firm age, Forensic Accounting Services, information and communication technology) in explaining and predicting voluntary accounting disclosure of the listed financial service companies in Nigeria.

Second, profitability has positive effects on voluntary accounting disclosure in view of the fact that profitable companies have all the potentials to disclose information to the fullest being profit oriented ab initio is the main object. Thus, this study concluded that profitability have significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria.

Third, the study found negative but significant effect of liquidity on the level of voluntary accounting disclosure. It is therefore concluded that excess liquidity decreases the voluntary accounting disclosure of listed financial service companies in Nigeria.

Fourth, leverage was found to have positive and significant effect on the level of voluntary accounting disclosure of the listed financial service firms in Nigeria. This study concluded that when the leverage is high, there is greater likelihood of the listed financial service companies in Nigeria to disclose voluntary information in their financial statement.

Fifth, firm size has positive and significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria because larger firms usually

have strong motive and strength in facing challenges that may deter them from disclosing voluntarily. These factors may discourage small firms in disclosing voluntary information.

Sixth, firm age as one of the firm attributes in this study was found to have positive and significant effect on the level of voluntary accounting disclosure of listed financial service companies in Nigeria. This means, number of years spent and experience in the business contribute in encouraging listed financial service firms in Nigeria to disclose voluntary information.

Seventh, Forensic Accounting Services was found to have positive and significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria. As such, this study concluded that Forensic Accounting Services has encourage the listed financial service firms in Nigeria in disclosing voluntary information in their financial statement. Due to the absence of prior studies, this study could not establish findings for or against Forensic Accounting Services and voluntary disclosure.

Eight, for the information and communication technology, this study found positive and significant effect with voluntary accounting disclosure of listed financial service companies in Nigeria. On the basis of these findings, this study concluded that ICT increases voluntary accounting disclosure of the listed financial service companies. However, none literature on the effect of ICT on voluntary accounting disclosure makes this study unable to relate its findings with prior literature.

Finally, the overall conclusion of this study is that firm attributes considered in this study have significant effect on voluntary accounting disclosure of listed financial

service companies in Nigeria. Furthermore, liquidity is negatively related and significantly influencing voluntary accounting disclosure, all other firm attributes (profitability, leverage, firm size, firm age, Forensic Accounting Services and ICT) have positive and significant effect on the voluntary accounting disclosure of listed financial service companies in Nigeria.

5.3 Recommendations

Based on the findings of the study, the following recommendations were made.

- i. The managements of listed financial service companies in Nigeria should use their resources in improving their profitability. This can be done in view of the fact that profitable firm have available resources that will make them disclose more information voluntarily. As they disclose additional information voluntarily, shareholders will be well informed and in turn make the right decision on the company; future investment and employment opportunities. It is a signal of financial success of the venture and promotes its impression positively. This recommendation is in view of the fact that profitability has positive and significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria. This means, the more profitable a firm is, the more voluntary accounting disclosure and vice versa.
- ii. The management of listed financial service companies in Nigeria should ensure they maintained their liquidity. This is in view of the fact that it has a negative and significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria. This means that when they disclose additional information, the liquidity level will decrease and if it decreases, it means the firm by extension may not fulfill its short term obligation and by extension long term obligation may suffer.

This is given the fact that additional information is attached to additional cost. However, listed financial service companies in Nigeria can achieve the maintenance of their liquidity by using the existing resources such as machineries, track records, accounting softwares, ICT data base. In doing this, additional cost attached to it will reduce. In the same vein, they can also make provision out of their reserves or profit as the case may be to disclose more information voluntarily. With this, listed financial service firms in Nigeria will fulfill their short term and long term obligations.

- iii. The management of listed financial service companies in Nigeria should increase their leverage level or stabilized it. This is because leverage has positive and significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria. Though high levered companies are prone to agency cost and information asymmetry, but with additional information on voluntary basis, agency cost and information symmetry will reduce. However, it will encourage stakeholders particularly creditors and prospective ones to feel free in their relationship with the firm. However, going by the economic assumption that the higher the risk, the higher the return and debt is attached to risk. Therefore, it is expected that listed financial service companies in Nigeria will be doing well with increase leverage if voluntary accounting disclosure is made available.
- iv. The management of listed financial service companies in Nigeria should keep on increasing their assets size by acquiring more assets and deploying them for use which will led to companies' expansion. Such as engaging in other lines of business, opening new braches (local and foreign), subscribing more shares to gain subsidiary

companies, associated companies, joint venture and even partnership. As company expands, it means more activities and complex and complexity invariably requires more voluntary accounting disclosure. Also, it will lead to effective service provision due to increase in firm size. The recommendation is due to positive and significant effect of firm size on voluntary accounting disclosure of listed financial service companies in Nigeria.

- v. The management of listed financial service companies in Nigeria should maintain their status being older in the business. That is, the older the company, the easier and low cost of collecting as well as analyzing data. The presence of track records and stability in the market is also assured. Additional information can be made at least on cost in view of the fact that firm age has positive and significant effect on voluntary accounting disclosure of listed financial service companies in Nigeria.
- vi. The management of listed financial service companies in Nigeria should increase the forensic accounting services. This can be achieved by engaging forensic accountants' services in terms of litigation support, whistle blowing as well as fraud auditing. This will serve as quality assurance to stakeholders and a support to traditional auditing system. They should however give priority in terms of employing the services of auditors for those who have forensic accounting skills and by extension, professional members of Chartered Institute of Forensic and Investigative Auditors (CIFIA). This is because senate passes for 3rd reading the bill for an Act to establish the CIFIA on Thursday 5th July, 2018 after clause by clause consideration. The bill was sponsored by Senator Ahmed Lawal, the senate majority leader and Senator Andy Uba.

- vii. The recommendation was made due to positive and significant effect of forensic accounting services on voluntary accounting disclosure of listed financial service companies in Nigeria.
- viii. The management of listed financial service companies in Nigeria should improve on the usage of ICT facilities. This can be done by using more relevant software in provisions of their services due to the complex nature of activities. This is because some of the firms have subsidiaries, associate or even joint venture. The world is in the era of information and communication technology and as such preparation of financial statement will be easier with ICT to the requirement of law. The result is in tandem with a priori because in the short run the cost of ICT is increasing while voluntary accounting disclosure is also increasing. As such, voluntary information can be provided easily. The recommendation is due to positive and significant effect of ICT on voluntary accounting disclosure of listed financial service companies in Nigeria.

5.4 Limitations of the study

In any given research conducted, it is hardly completed without any limitations. Therefore, the scoring of voluntary disclosure were arguments exist on whether to use weighted or unweighted disclosure index in view of the fact that both approaches have been criticized as noted by Barako, (2007). Yet this study used unweighted index, because Umoren and Peace, (2011) point out that the subjective weights of user groups will average each other out. As such this may serve as a limitation to this study. Therefore, the findings should be interpreted with care because of these limitations.

However, the result used listed financial service companies in Nigeria in which case some of its measurement differ from other industry such as measurement of liquidity where loan and deposit as well as advances are used which is the inverse in some other sectors. For this, the result could not be applicable to all listed companies in Nigerian Stock Exchange, particularly some of these variables.

5.5 Area for further study

Although the findings of this study provide sufficient basis for good policy formulation with respect to the development of listed financial service sector in Nigeria, there is a need for further studies. Therefore, the following areas are suggested for further research.

A study on the effect of firms attributes on voluntary accounting disclosure with more different variables such as listing status, audit firm, number of shareholders, industry type, board composition, leadership structure, shareholders concentration, among others should be carried out. This will provide the basis for ascertaining any other significant variables not captured in this study.

A similar research on the effect of firm attributes on voluntary accounting disclosure should be carried out across other sectors of the economy. This will contribute to the practice of voluntary accounting disclosure in listed firms in Nigeria.

Furthermore, a study of this nature could be made to compare disclosure practices between Nigeria and other developing countries. This is because collecting different information, especially those with different disclosure regulations would enhance the validation and results arrived at in this study and would be useful to the literature on comparative international accounting study.

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Appendix A

Output from STATA software



(R)

11.2

Copyright 1985-2009 StataCorp LP
StataCorp
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College Station, Texas 77845 USA
800-STATA-PC <http://www.stata.com>
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979-696-4601 (fax)

Single-user Stata license expires 31 Dec 9999:

Serial number: 71606281563
Licensed to: STATAForAll
STATA

Notes:

1. (/m# option or -set memory-) 50.00 MB allocated to data
2. (/v# option or -set maxvar-) 5000 maximum variables

. edit

. *(10 variables, 320 observations pasted into data editor)

. su vdisl prof liqd levg fsiz fage fas ict

Variable	Obs	Mean	Std. Dev.	Min	Max
vdisl	320	.5509219	.217015	.146	.922
prof	320	.0702906	.1352559	-.052	.924
liqd	320	.6277094	.2606929	.118	.897
levg	320	.0398656	.097908	.012	.783
fsiz	320	3.394697	.4814583	2.485	3.989
fage	320	.333	.1503509	.12	.54
fas	320	.79375	.4052458	0	1
ict	320	.0939844	.175081	0	.924

. su vdisl prof liqd levg fsiz fage fas ict, detail

vdisl					
Percentiles			Smallest		
1%	.146		.146		
5%	.1845		.146		
10%	.2235		.146		
25%	.359		.146		
50%	.583				
75%	.709		Largest	Mean	.5509219
90%	.825		.922	Std. Dev.	.217015
95%	.864		.922	Variance	.0470955
99%	.922		.922	Skewness	-.2664561
				Kurtosis	1.973478
prof					
Percentiles			Smallest		
1%	.001		-.052		
5%	.0015		.001		
10%	.006		.001		
25%	.0175		.001		
50%	.028				
75%	.052		Largest	Mean	.0702906
90%	.1695		.924	Std. Dev.	.1352559
95%	.331		.924	Variance	.0182942
99%	.924		.924	Skewness	4.460323
				Kurtosis	26.22491

liqd					
Percentiles			Smallest		
1%	.135		.118		
5%	.184		.135		
10%	.232		.135		
25%	.353		.135		
50%	.811				
75%	.842		Largest	Mean	.6277094
90%	.857		.897	Std. Dev.	.2606929
95%	.897		.897	Variance	.0679608
99%	.897		.897	Skewness	-.5820604
				Kurtosis	1.657438

levg					
Percentiles			Smallest		
1%	.012		.012		
5%	.012		.012		
10%	.012		.012		
25%	.021		.012		
50%	.026				
75%	.03		Largest	Mean	.0398656
90%	.039		.695	Std. Dev.	.097908
95%	.0399		.726	Variance	.009586
99%	.695		.783	Skewness	6.597141
				Kurtosis	45.23799

fsiz					
Percentiles			Smallest		
1%	2.485		2.485		
5%	2.6735		2.485		
10%	2.833		2.485		
25%	2.996		2.485		
50%	3.367				
75%	3.912		Largest	Mean	3.394697
90%	3.97		3.97	Std. Dev.	.4814583
95%	3.97		3.97	Variance	.2318021
99%	3.97		3.989	Skewness	-.0935849
				Kurtosis	1.546609

fage					
	Percentiles	Smallest			
1%	12	12			
5%	14	12			
10%	15	12			
25%	20	12			
50%	29				
75%	50	Largest			
90%	53	53			
95%	53	53			
99%	53	54			
			Obs		320
			Sum of Wgt.		320
			Mean		33.3
			Std. Dev.	15.0	3509
			Variance	226.0	539
			Skewness	1.198	3618
			Kurtosis	1.327	722

fas					
	Percentiles	Smallest			
1%	0	0			
5%	0	0			
10%	0	0			
25%	1	0			
50%	1				
75%	1	Largest			
90%	1	1			
95%	1	1			
99%	1	1			
			Obs		320
			Sum of Wgt.		320
			Mean		79375
			Std. Dev.	4052458	
			Variance	1642241	
			Skewness	-1.452008	
			Kurtosis	3.108327	

ict					
	Percentiles	Smallest			
1%	.001	0			
5%	.002	.001			
10%	.0065	.001			
25%	.018	.001			
50%	.029				
75%	.071	Largest			
90%	.234	.924			
95%	.407	.924			
99%	.924	.924			
			Obs		320
			Sum of Wgt.		320
			Mean		939844
			Std. Dev.	175081	
			Variance	3066534	
			Skewness	3.300997	
			Kurtosis	14.02491	

. pwcorr vdisl prof liqd levg fsiz fage fas ict, star (0.05) sig

	vdisl	prof	liqd	levg	fsiz	fage	fas
vdisl	1.0000						
prof	0.2733* 0.0000	1.0000					
liqd	-0.3926* 0.0000	0.0598 0.2865	1.0000				
levg	0.5050* 0.0000	-0.1090 0.0515	-0.3465* 0.0000	1.0000			
fsiz	0.4187* 0.0000	-0.0347 0.5361	0.0599 0.2853	0.2979* 0.0000	1.0000		
fage	0.0823 0.1419	0.0754 0.1784	0.3931* 0.0000	0.0121 0.8287	0.5122* 0.0000	1.0000	
fas	-0.3483* 0.0000	0.0090 0.8730	0.0411 0.4635	-0.1681* 0.0026	-0.6673* 0.0000	-0.5576* 0.0000	1.0000
ict	-0.0682 0.2236	-0.0543 0.3325	-0.1861* 0.0008	-0.3038* 0.0000	-0.2938* 0.0000	-0.2818* 0.0000	-0.0357 0.5243
	ict						
ict	1.0000						

. reg vdisl prof liqd levg fsiz fage fas ict

Source	SS	df	MS	Number of obs = 320	
Model	332.368832	7	47.4812618	F(7, 312) =	53.10
Residual	278.972689	312	.894143233	Prob > F =	0.0000
				R-squared =	0.5437
				Adj R-squared =	0.5334
				Root MSE =	.94559
Total	611.341521	319	1.9164311		

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
prof	1.429017	.158766	9.00	0.000	1.11663	1.741405
liqd	-.2797312	.0479416	-5.83	0.000	-.3740609	-.1854015
levg	.7712597	.0972506	7.93	0.000	.5799097	.9626097
fsiz	1.216851	.208994	5.82	0.000	.8056351	1.628067
fage	-.0296234	.115606	-0.26	0.798	-.2570894	.1978425
fas	-.0028337	.0030814	-0.92	0.358	-.0088966	.0032292
ict	.4302641	.1956924	2.20	0.029	.0452204	.8153077
_cons	-.0811761	.5921878	-0.14	0.891	-1.246363	1.084011

```
. reg vdis1 prof liqd levg fsiz fage fas ict, robust
```

Linear regression

Number of obs = 320
F(7, 312) = 3953.59
Prob > F = 0.0000
R-squared = 0.5437
Root MSE = .94559

vdis1	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
prof	1.429017	.3725544	3.84	0.000	.6959804	2.162054
liqd	-.2797312	.0592298	-4.72	0.000	-.3962715	-.1631908
levg	.7712597	.1044441	7.38	0.000	.5657558	.9767637
fsiz	1.216851	.5919718	2.06	0.041	.0520892	2.381613
fage	-.0296234	.1193283	-0.25	0.804	-.2644133	.2051665
fas	-.0028337	.0066289	-0.43	0.669	-.0158768	.0102093
ict	.4302641	.3462385	1.24	0.215	-.2509935	1.111522
_cons	-.0811761	1.603606	-0.05	0.960	-3.236425	3.074073

```
. vif
```

Variable	VIF	1/VIF
fas	2.64	0.378885
fsiz	2.30	0.434751
fage	2.19	0.457200
liqd	1.56	0.640415
ict	1.52	0.658015
levg	1.47	0.679863
prof	1.03	0.972534
Mean VIF	1.82	

```
. hettest
```

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

H0: Constant variance

Variables: fitted values of vdis1

chi2(1) = 4.90
Prob > chi2 = 0.0268

```
. swilk vdis1 prof liqd levg fsiz fage fas ict
```

Shapiro-wilk w test for normal data

Variable	Obs	W	V	Z	Prob>z
vdis1	320	0.82477	39.533	8.658	0.00000
prof	320	0.27755	162.989	11.994	0.00000
liqd	320	0.87749	27.640	7.816	0.00000
levg	320	0.67417	73.510	10.119	0.00000
fsiz	320	0.49191	114.629	11.165	0.00000
fage	320	0.74269	58.051	19.563	0.00000
fas	320	0.07403	208.905	12.578	0.00000
ict	320	0.29193	159.745	11.946	0.00000

```
. xtset id yr
```

panel variable: id (strongly balanced)

time variable: yr, 2007 to 2016

delta: 1 unit

```
. xtreg vdis1 prof liqd levg fsiz fage fas ict, fe
```

Fixed-effects (within) regression

Group variable: id

R-sq: within = 0.6323
between = 0.0240
overall = 0.1241

Number of obs = 320
Number of groups = 32

Obs per group: min = 10
avg = 10.0
max = 10

corr(u_i, Xb) = -0.5218

F(7, 281) = 69.03
Prob > F = 0.0000

vdis1	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
prof	1.34452	.1236102	10.88	0.000	1.1012	1.587839
liqd	-.2505662	.044624	-5.62	0.000	-.338406	-.1627265
levg	.4394418	.1136925	3.87	0.000	.2156447	.6632389
fsiz	.6136243	.2011213	3.05	0.002	.2177287	1.00952
fage	1.961192	.3222045	6.09	0.000	1.326951	2.595433
fas	.0179428	.0043627	4.11	0.000	.0093551	.0265304
ict	1.095144	.1922132	5.70	0.000	.7167832	1.473504
_cons	-5.415159	1.065805	-5.08	0.000	-7.513134	-3.317183
sigma_u	1.3434039					
sigma_e	.6758637					
rho	.79801612					

(fraction of variance due to u_i)

F test that all u_i=0: F(31, 281) = 10.64 Prob > F = 0.0000

```
. est store fe
```

```
. xtreg vdis1 prof liqd levg fsiz fage fas ict, re
Random-effects GLS regression              Number of obs   =       320
Group variable: id                        Number of groups  =        32
R-sq:  within = 0.6086                    Obs per group:   min =        10
        between = 0.3047                  avg =       10.0
        overall = 0.4772                  max =        10
corr(u_i, X) = 0 (assumed)                Wald chi2(7)     =    448.25
                                           Prob > chi2       =    0.0000
```

vdis1	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
prof	1.413961	.1262138	11.20	0.000	1.166587	1.661336
liqd	-.2654492	.0447624	-5.93	0.000	-.3531818	-.1777165
levg	.7383454	.0974236	7.58	0.000	.5473987	.9292921
fsiz	.838995	.1988134	4.22	0.000	.449328	1.228662
fage	.6118416	.2003328	3.05	0.002	.2191965	1.004487
fas	.0028968	.0033081	0.88	0.381	-.0035869	.0093805
ict	.684312	.1786366	3.83	0.000	.3341907	1.034433
_cons	-1.441993	.7579358	-1.90	0.057	-2.92752	.043534
sigma_u	.6896403					
sigma_e	.6758637					
rho	.51008799	(fraction of variance due to u_i)				

```
. est store re
```

```
. hausman fe re
```

	Coefficients		(b-B)	sqrt(diag(V_b-V_B))
	(b) fe	(B) re	Difference	
prof	1.34452	1.413961	-.0694418	.
liqd	-.2505662	-.2654492	.0148829	.
levg	.4394418	.7383454	-.2989036	.0586057
fsiz	.6136243	.838995	-.2253708	.0303812
fage	1.961192	.6118416	1.349351	.2523539
fas	.0179428	.0028968	.015046	.0028442
ict	1.095144	.684312	.4108318	.070957

```

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic
      chi2(7) = (b-B)'[(V_b-V_B)^(-1)](b-B)
              = 36.12
      Prob>chi2 = 0.0000
      (V_b-V_B is not positive definite)
```

Appendix B
Voluntary disclosure Checklist

S/N	Items	Detailed information
a.	Financial Highlights 25 items	<ol style="list-style-type: none"> 1. Profit before tax 2. Taxation 3. Profit after tax 4. Non-Controlling Interest 5. Profit attributable to group shareholders 6. Statutory reserve 7. General reserve 8. Shareholders fund 9. Earnings per share 10. Dividend per share declared 11. Total dividend 12. Loans and Advances 13. Advances under finance lease 14. Deposit liabilities 15. Total assets and contingent 16. Treasury bills 17. Dividend per share unpaid 18. Share capital 19. Information and Communication Technology Development Levy 20. Number of branches 21. Number of staff 22. Number of shares issue 23. Non-Performing loan ration 24. Return on equity 25. Return on assets
b.	Quantitative forecast of performance for the next year 4 items	<ol style="list-style-type: none"> 1. Profit 2. Capital injection/Authorized share capital 3. Dividend 4. Liabilities
c.	Share price at accounting year end 1 Item	<ol style="list-style-type: none"> 1. Single value as per capital market information release
d.	Corporate Social Responsibility Report 15 items	<ol style="list-style-type: none"> 1. Empowering customer 2. Customer service 3. Access to retail credit 4. Performance of management 5. Learning and Development 6. Employee welfare 7. Environmental sustainability 8. Economic empowerment 9. Education 10. Special community development project

11. Foundation
12. Corporate Governance Framework
13. Board meetings
14. Performance measurement
15. Professional development
- e. Corporate governance information
23 Items
 1. Performance monitoring and evaluation
 2. Appointment, retirement and re-election of directors
 3. Shareholders engagement
 4. Access to information and resources
 5. The board
 6. Composition and role of the board
 7. Appointment, process, induction and training of board members
 8. Training for non-executive directors
 9. Delegation of authority
 10. Board meetings
 11. Governance and nomination committee
 12. Audit committee
 13. Attendance at board
 14. Code of ethics
 15. Whistle blowing procedure
 16. Award and recognition
 17. Customer complaints and resolution
 18. Statement of compliance
 19. Functions of the board
 20. Remuneration policy
 21. Credit
 22. Monitoring compliance with corporate governance
 23. Shareholders complaint and management policy
- f. Performance trend for the past five years
3 items
 1. Income statements for five years
 2. Statement of financial position for five years
 3. Earning s per share
- g. Environmental liabilities and cost
2 Items
 1. Activities done
 2. Cost implication
- h. Donation analysis
11 Items
 1. States security trust fund
 2. Economic summit and sponsorship
 3. ICT center for educational institutions
 4. Medical assistance to under privileged
 5. The Nigerian football federation
 6. Business school
 7. Health care Centre
 8. Agriculture
 9. Arts and Culture
 10. Entrepreneurship
 11. Charitable contributions

- | | | |
|----|---|--|
| i. | Risk management
issues associated with
the organization
15 Items | <ol style="list-style-type: none"> 1. Board risk management committee 2. Credit risk management 3. Market and liquidity risk management 4. Operational risk management 5. Risk management framework 6. Balancing risk analytics 7. Integrated risk analytics 8. Risk management process 9. Scope of the risk 10. Compliance risk management framework 11. Legal risk management 12. Information risk 13. Risk management philosophy 14. Settlement risk 15. Foreign currency risk |
| j. | Unclaimed dividend
analysis
3 Items | <ol style="list-style-type: none"> 1. Interim 2. Proposed 3. Paid |
| k. | Information about
future investment
1 Item | <ol style="list-style-type: none"> 1. Future outlook |

Source: Compiled by the author, 2017

Appendix C
Listed Financial Service companies in Nigeria

S/No	Company	Category
1	Abbey Mortgage Bank Plc	Mortgage Carrier
2	Access bank Plc	Banking
3	Africa Prudential Registrars Plc	Other Financial Institution
4	African Alliance Insurance	Insurance
5	AIICO Insurance Plc	Insurance
6	Aso Savings and loans Plc	Mortgage Carrier
7	Axamansard Insurance Plc	Insurance
8	Consolidated Hallmark insurance plc	Insurance
9	Continental Reinsurance Plc	Insurance
10	Cornerstone Insurance Company Plc	Insurance
11	Custodian and Allied Plc	Insurance
12	Deap Capital Management and Trust Plc	Other Financial Institution
13	Diamond Banl Plc	Banking
14	Eco Bank Transnational Incorporated Plc	Banking
15	Equity Assurance Plc	Insurance
16	FBN Holdings Plc	Banking
17	FCMB Group Plc	Banking
18	Fidelity Bank Plc	Banking
19	Fortis Micro Finance Bank Plc	Banking
20	Goldlink Insurance Plc	Insurance
21	Great Nigerian Insurance Plc	Insurance
22	GTB Plc	Banking
23	Guinea Insurance Plc	Insurance
24	Infinity Trust Mortgage Bank Plc	Mortgage Carrier
25	International Energy Insurance Company plc	Insurance
26	Investment and Allied Assurance Plc	Insurance
27	Lasaco Assurance Plc	Insurance
28	Law Union and Rock Insurance Plc	Insurance
29	Linkage Assurance Plc	Insurance
30	Mutual Benefits Assurance plc	Insurance
31	N.E.M. Insurance Company (Nigeria) Plc	Insurance
32	Niger Insurance Company Plc	Insurance
33	Nigeria Energy Sector Fund	Other Financial Institutions
34	NPF Microfinance Bank Plc	Banking
35	Omoluabi Savings and Loans Plc	Other Financial Institutions
36	Prestige Assurance Company Plc	Insurance
37	Regency Alliance Insurance Company Plc	Insurance
38	Resort Savings and loans Plc	Mortgage Carrier
39	Royal Exchange Plc	Other Financial Institutions
40	SIM Capital Alliance Value Fund Plc	Other Financial Institutions
41	Skye bank Plc	Banking
42	Sovereign Trust Insurance Plc	Insurance
43	Stanbic IBTC Holdings Plc	Banking

44	Standard Alliance Insurance Plc	Insurance
45	Standard Trust Assurance Plc	Insurance
46	Sterling Bank Plc	Banking
47	Unic Insurance Plc	Insurance
48	Union Bank Plc	Banking
49	Union Homes Savings and loans Plc	Mortgage Carriers
50	United bank for Africa Plc	Banking
51	Unity Bank Plc	Banking
52	Unity Kapital Assurance Plc	Insurance
53	Universal Insurance Company Plc	Insurance
54	WAPIC Insurance Plc	Insurance
55	Zenith International bank Plc	Banking

Source: Nigerian Stock Exchange, 2017

Appendix D
Listed financial service companies in Nigeria by Category

Category A: Banking

S/N	Banks
1	Access Bank Plc
2	Diamond Bank Plc
3	Eco Bank plc
4	Fidelity Bank plc
5	First Bank of Nigeria Plc
6	First City Monument Bank Plc
7	Guaranty Trust Bank Plc
8	Skye Bank Plc
9	Stanbic IBTC Bank Plc
10	Sterling Bank Plc
11	Union Bank of Nigeria Plc
12	United Bank for Africa Plc
13	Unity Bank plc
14	Zenith Bank Plc

Source: Nigerian Stock Exchange, 2017

Category B: Insurance

S/N	Insurance Companies
1	African Alliance Insurance
2	AIICO Insurance Plc
3	Axamansard Insurance Plc
4	Consolidated Hallmark Insurance plc
5	Continental Reinsurance Plc
6	Cornerstone Insurance Company Plc
7	Custodian and Allied Plc
8	Equity Assurance Plc
9	Goldlink Insurance Plc
10	Great Nigerian Insurance Plc
11	Guinea Insurance Plc
12	International Energy Insurance Company plc
13	Investment and Allied Assurance Plc
14	Lasaco Assurance Plc
15	Law Union and Rock Insurance Plc
16	Linkage Assurance Plc
17	Mutual Benefits Assurance plc
18	N.E.M. Insurance Company (Nigeria) Plc
19	Niger Insurance Company Plc
20	Prestige Assurance Company Plc
21	Regency Alliance Insurance Company Plc
22	Sovereign Trust Insurance Plc
23	Standard Alliance Insurance Plc

24	Standard Trust Assurance Plc
25	Unic Insurance plc
26	Unity Kapital Assurance Plc
27	Universal Insurance Company Plc
28	WAPIC Insurance Plc

Source: Nigerian Stock Exchange, 2017

Category C: Other Financial Institutions

S/N	Other Financial Institutions
1	Africa Prudential Registrars Plc
2	Deap Capital Management and Trust Plc
3	Nigeria Energy Sector Fund
4	Omoluabi Savings and Loans plc
5	Royal Exchange Plc
6	SIM Capital Alliance Value Fund Plc

Source: Nigerian Stock Exchange, 2017

Category D: Mortgage Carrier

S/N	Mortgage Carriers Companies
1	Abbey Mortgage Bank Plc
2	Aso Savings and Loans Plc
3	Infinity Trust Mortgage Bank Plc
4	Resort Savings and loans Plc
5	Union Homes plc

Source: Nigerian Stock Exchange, 2017

Category E: Microfinance Banks

S/N	Banks
1	Fortis Micro Finance Bank Plc
2	NPF Microfinance Bank Plc

Source: Nigerian Stock Exchange, 2017

Appendix E
Firms removed after applying first filter

S/N	Companies	Category
1	Cornerstone Insurance Company Plc	Insurance
2	N.E.M. Insurance Company (Nigeria) Plc	Insurance
3	Regency Alliance Insurance Company Plc	Insurance
4	WAPIC Insurance Plc	Insurance
5	Omuluabi Savings and Loans Plc	Other Financial Institutions
6	SIM Capital Alliance value Fund Plc	Other Financial Institutions
7	Infinity Trust Mortgage Bank Plc	Mortgage Carriers
8	NPF Micro Finance Bank Plc	Micro Finance Banks

Source: Compiled by the author 2017

Appendix F
Modified population after first filter

S/N	Companies
1	Abbey Mortgage Bank Plc
2	Access Bank Plc
3	Africa Prudential Registrars Plc
4	African Alliance Insurance
5	AIICO Insurance Plc
6	Aso Savings and Loans Plc
7	Axamansard Insurance Plc
8	Consolidated Hallmark Insurance plc
9	Continental Reinsurance Plc
10	Custodian and Allied Plc
11	Deap Capital Management and Trust Plc
12	Diamond Bank Plc
13	Eco Bank plc
14	Equity Assurance Plc
15	Fidelity Bank plc
16	First Bank of Nigeria Plc
17	First City Monument Bank Plc
18	Fortis Micro Finance Bank Plc
19	Goldlink Insurance Plc
20	Great Nigerian Insurance Plc
21	Guaranty Trust Bank Plc
22	Guinea Insurance Plc
23	International Energy Insurance Company plc
24	Investment and Allied Assurance Plc
25	Lasaco Assurance Plc
26	Law Union and Rock Insurance Plc
27	Linkage Assurance Plc
28	Mutual Benefits Assurance plc
29	Niger Insurance Company Plc
30	Nigeria Energy Sector Fund
31	Prestige Assurance Company Plc
32	Resort Savings and loans Plc
33	Royal Exchange Plc
34	Skye Bank Plc
35	Sovereign Trust Insurance Plc
36	Stanbic IBTC Bank Plc
37	Standard Alliance Insurance Plc
38	Standard Trust Assurance Plc
39	Sterling Bank Plc
40	Unic Insurance plc
41	Union Bank of Nigeria Plc
42	Union Homes plc
43	United Bank for Africa Plc

- 44 Unity Bank plc
 - 45 Unity Kapital Assurance Plc
 - 46 Universal Insurance Company Plc
 - 47 Zenith Bank Plc
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Source: Compiled by the author 2017

Appendix G
Firms removed after applying second filter

S/N	Companies	Category
1	Axamansard Insurance Plc	Insurance
2	International Energy Insurance Company Plc	Insurance
3	Investment and Allied Insurance Plc	Insurance
4	Law Union and Rock Insurance Plc	Insurance
5	Linkage Assurance Plc	Insurance
6	Mutual Benefits Assurance Plc	Insurance
7	Nigeria Energy Sector Fund Plc	Insurance
8	Royal Exchange Plc	Insurance
9	Sovereign Trust Insurance Plc	Insurance
10	Standard Trust Assurance Plc	Insurance
11	Unity Kapital Assurance Plc	Insurance
12	Universal Insurance Company Plc	Insurance
13	Fortis micro finance Bank Plc	Micro Finance Banks
14	Unic Insurance Plc	Other Financial Institutions
15	Union Homes Plc	Other Financial Institutions

Source: Compiled by the author 2017

Appendix H
Listed sampled financial service compnies in Nigeria

S/N	Companies
1	Abbey Mortgge Bank Plc
2	Access Bank Plc
3	Africa Prudential Registrars Plc
4	African Alliance Insurance
5	AIICO Insurance Plc
6	Consolidated Hallmark Insurance Plc
7	Continental Reinsurance Plc
8	Custodian and Allied Plc
9	Wema Bank Plc
10	Deap Capital Management and Trust Plc
11	Eco Bank Transnational Incorporated Plc
12	Equity Assurnace Plc
13	FBN Holdings Plc
14	FCMB Group Plc
15	Fedelite Bank Plc
16	Skye Bank Plc
17	Goldlink Insurance Plc
18	Great Nigerian Insurance Plc
19	GTB Plc
20	Guinea Insurance Plc
21	Aso Savings and Lion Plc
22	Lasaco Assurance Plc
23	Niger Insurance Company Plc
24	Zenith Bank Nigeria Plc
25	Prestige Assurance Company plc
26	Resort Saving and Loan
27	Stanbic IBTC Holding Plc
28	Stadard Alliance Insurnace Plc
29	Sterling Bank Plc
30	Union Bank Plc
31	UBA Plc
32	Unity Bank Plc

Source: Compiled by the author, 2017