ACCOUNTING INFORMATION SYSTEM AND FINANCIAL PERFORMANCE ON QUOTED AND LISTED DEPOSIT MONEY BANKS IN NIGERIA

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BEING A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF ACCOUNTING, FACULTY OF MANAGEMENT SCIENCES, UNIVERSITY OF BENIN, BENIN CITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.SC.) DEGREE IN ACCOUNTING

OCTOBER, 2023

DECLARATION

I hereby declare that:

1. This project work is based on a study undertaken by me in the Department of Accounting, University of Benin under the supervision of Dr. K. E. Orumwense.
2. This research work has not previously submitted for the award of degree elsewhere.
3. All ideas and views are products of my personal research and where the views of others have been used and expressed they were duly acknowledged.
4. All liabilities arising from the study are entirely mine and not those of the supervisor.

_____ _____

Grace Nifemi SOLU **Date**
Project student

CERTIFICATION

We the undersigned certify that this project work was carried out by Grace Nifemi SOLU with matriculation number MGS1807702 of the Department of Accounting, Faculty of Management sciences, University of Benin, Benin City, for the partial fulfillment of the requirements for the award of B.Sc. in Accounting.

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Project Supervisor	*Project Coordinator*
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Date	**Date**

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Dr. Osasu Obaretin
Head of Department

_____

Date

DEDICATION

I dedicate this project work to God Almighty, for his strength and inspiration throughout my research and my B.Sc. programme and also to my beloved father, Mr. Sofolahan Solu and mother, Mrs. Abosede Solu.

ACKNOWLEDGEMENT

I would like to express my profound gratitude to God Almighty for giving me the strength, good health and knowledge to accomplish this project successfully. Also, with a standing ovation and recognition, I wish to express my sincere thanks to my supervisor Dr. K. E. Orumwense for his patience, insightful comments, suggestions, helpful information, corrections where needed and increasing ideas which have helped me tremendously at all times in the completion of this project work.

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ABSTRACT

The need for businesses to ensure achievement of set performance objectives and survive the complex, dynamic and highly competitive business environment are among the factors that made Accounting Information System (AIS) relevant in financial performance and business management. Question on the capability of accounting information generated to improve financial performance has been raised in past studies. This study examined the effect of AIS on the financial performance of Deposit Money Banks (DMBs) in Nigeria. The study adopted a survey research design with the employees of all licensed commercial DMBs in Nigeria as the study population. The sample size comprised Thirteen (13) DMBs in the operations, information technology, finance and control functions. The data collected through the use of secondary data were analysed using descriptive and inferential statistics using the ordered logistic regressions. The study established that there was a significant positive effect of AIS on financial performance (β=1.946, 1.815, 2.596 and 4.310;W (402) =5.195, 4.756,12.872 and 26.303; p= 0.023, 0.029, 0.000 and 0.000;R2 = 0.464).The study concluded that accounting information system contributed significantly to financial performance across all DMBs in Nigeria and that AIS practices are similar in DMBs in Nigeria. The study recommended that management of DMBs should consider improvement of AIS an ongoing process and carry out periodic evaluation of investment in technology relating to accounting information. It also recommended that regulators should improve on policy guidelines on the processing of accounting information that will ensure faithfully represented output.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Accounting information system (AIS) just like any other information system is perceived to play a great role in the management of day to day operations in corporate organizations. Accounting information systems are regarded as one of the supporting information systems used in carrying out managerial functions such as planning, organizing, controlling and decision-making, for the better exploitation of the available resources (Samer, 2016). According to Borhan and Bader 2018, accounting information system (AIS) is a formal system for identifying, measuring, accumulating, analyzing, preparing, interpreting and communicating accounting information about a particular entity to a particular group. Accounting information system represents a range of sources (persons and equipment), which are designed to collect financial data to reach the information needed for different decision-makers at a particular period of time (Bodnar & Hopwood, 2010). Accounting information system is very vital to all organizations. It is designed to help in the management and collection of information, raw data or ordinary data and transform them into financial data for the purpose of reporting them to decision makers (Dandago & Rufai, 2014., Harash, Al-Timimi & Alsaadi, 2014). AIS is a system that assists in the collection and recording of data and information regarding events that have an economic impact on organizations. It also helps in the maintenance, processing and communication of such information to both internal and external stakeholders (Olusola., Olugbenga,Zacchaeus &

Oluwagbemiga, 2013). AIS provide internal and external reporting data, financial statements and trend analysis capabilities that affect an organizational performance.

The global economic trends and different economic scenarios emerging all over the world as a result of developments in the adoption of information technology have made accounting information system (AIS) relevant as an indispensable tool for performance management. The need by businesses to ensure achievement of set performance objectives and survive the complex, dynamic and highly competitive business environment are other factors that made AIS vital in business management . All over the world, there is increasing reliance on information technology as a result of the needs to improve performance, specifically financial performance of business (Lallo&Selamat, 2013) , with this assertion being emphasized by Pathak (2014), Salehi , Rostamiand Mogadam (2014), Al-Jalily and Taha (2010). Financial performance is a vital strategic initiative that can ensure sustainability of organization or dwindle the fortune of a business organisation.

According to Ikhide (2018), financial performance of banks has become an important issue in African economies for many reasons ranging from the fact that banks' financial performance has a positive correlation with the growth of the economy in which they operate. The assets of the banking system are very significant and constitute a high percentage oftotal output in many African economies. The adopt ion of a sound accounting information system by banks in African economies might lead to a better performance management through an effective and a timely use of accounting information provided for managements' use and could translate into improved profitability Eboh, Eke and Agu

(2017),opined that managing performance by Deposit Money Banks (DMBs) in Nigeria has been a very important issue for a long time and has gained more at tent ion recently due to high competitive business environment.

1.2 Statement of the Problem

Accounting information system can be regarded as one of the most vital platforms for financial performance. Managing financial performance plays a key role in enhancing the value of a firm or improving the overall value of an organisation (Chen & Hirschheim, 2014). This is one of the objectives of businesses or goal of management in whose hands the day-to-day running of the business is placed. Achieving this goal or objective often depend on the information relating to the business and its environment. Anyanwu (2010) is of the view that technological developments, particularly in the area of information and communication technology (ICT), are revolutionalising the modalities of conducting banking business in Nigeria. Information technology improves business operations by way of provision of quick search, access and retrieval of information platform of teamwork and group interact ion (Wong, 2015). The adoption of various forms of innovation in accounting information system has significantly affected the efficiency and quality of banking operations provided, leading to improved financial performance.

The problem of not having or enjoying the full benefits of qualitative accounting information system by business organizations is associated with the inability to process accounting information based on best practices with high qualities as a focal point to improve financial performance. Hence, there is a need to assess the accounting information

system and the accounting information being generated from the system whether they satisfy the qualitative characteristics of accounting information system in such a way that it will improve financial performance. In the light of the problem above, the following research questions are addressed in this study.

1.4 Objective of the Study

The broad objective of this study is to investigate the effect of accounting information system on the financial performance of listed deposit money banks in Nigeria. The specific objectives of the study are to:

1. examine the effect of firm size on accounting information systems of listed deposit money banks in Nigeria;
2. ascertain the impact of leverage on accounting information systems of listed deposit money banks in Nigeria;
3. find the influence of profitability on accounting information systems of listed deposit money banks in Nigeria;

1.4 Research Questions

1. What is the effect of firm size on accounting information systems of listed deposit money banks in Nigeria?
2. What is the impact of leverage on accounting information systems of listed deposit money banks in Nigeria?
3. What is the influence of profitability on accounting information systems of listed deposit money banks in Nigeria?

1.7 Research Hypotheses

In order to answer the research questions and achieve the objectives, the following hypotheses were hereby tested and stated in the null form.

1. Firm size has no significant effect on accounting information systems of listed deposit money banks in Nigeria.
2. Leverage has no significant impact on accounting information systems of listed deposit money banks in Nigeria.
3. Profitability has no significant influence on accounting information systems of listed deposit money banks in Nigeria.

1.8 Scope of the Study

The focus of the study is on the effect of accounting information system on the financial performance of listed deposit money banks in Nigeria. The study population covers all deposit money banks quoted on the floor of the Nigerian Exchange Group (NGX) from 2018-2022. Below is the list of selected banks; Access Bank, Eco Bank, Fidelity Bank Nigeria, First Bank Nigeria, First city monument Bank, Guaranty Trust Bank, Stanbic IBTC Bank Nigeria Limited, Standard Chartered Bank, Sterling Bank, United Bank for Africa, Unity Bank PLC, Wema Bank and Zenith Bank plc.

1.7 Significance of the Study

The study effect on accounting system on the financial performance of listed deposit money banks in Nigeria would be of immense benefits to various stakeholders such as the government, management of companies, directors and students because it will help them

understand the influence of firm characteristics on accounting information systems and how it can help in reducing the disclosure gap that exists due to inconsistent flow of information.

It will be of immense important to management of companies because it can assist preparers of accounts in their various companies in highlighting some areas of disclosures that still need to be improved so that details on the treatment of accounting information systems can be made available.

The study will also be of great significance to directors in such a way that it will make them notice that some small audit firms, professional consulting companies, and other accounting and business associations are also facing the dilemma of having insufficient knowledge to tackle the issue of recognition, measurement and appropriate disclosure of accounting information systems in the books of their clients.

This study is significant to the government because it provides evidence on how firm characteristics influence accounting information systems disclosure in developing countries like Nigeria, and it offers some insights into how firm characteristics influence accounting information systems disclosure in Nigeria. Also, this study will be useful for students because it will provide a good reference source for students who are interested in the same areas of study, especially on similar issues.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a review of relevant literature to this study. This chapter presents the conceptual review on accounting system and its relationship with firm size, leverage, profitability. A review of theoretical literature on this study was addressed, followed by theoretical framework and empirical consideration of extant literature.

2.2 Concept of Accounting System

Hussey (2015) defines accounting system as the system designed to record the accounting transaction and events of a business and account for them in a way that complies with its policies and procedures. Ama (2014) defines the accounting system as "a formal system for identifying, measuring, accumulating, analyzing, preparing, interpreting and communicating accounting information about a particular entity to a particular group". By formal system, we mean that the accounting system carries out its functions with laid down rules, regulations, methods, procedures and techniques. It is also a routine and an automatic system. An accounting system as opined by Ama (2011) is a formal mechanism for gathering, organizing and communicating information about an organization's activities.

An accounting system can also be defined as mechanism for gathering and communicating data for the ends of assisting and co-ordinating collective decision in view of the overall objective of a firm or an organization. Accounting system by definition is a financial information system which includes accounting terms, records instruction manuals

flow charts programs, and reports to fit the particular needs of the business. Accounting system is a set of records, procedures and equipment that routinely deals with the events affecting the financial performance and position of the organization. Finally, according to business online dictionary, a system is an organized set of manual and computerized accounting methods procedures and control established together, record, classify, analyze, summarized interpret and present accurate and timely financial data for management decisions.

2.2.1 Concept of Accounting Information System

Accounting information as part of the management information is very essential in decision making. According to Bodnar and Hopwood (1995), “this System involves the effective combination of resources within the organisation in order to provide actionable information for decision making.” Accounting information systems perform this transformation whether they are manual systems or computerized. Further, the accounting information system of any organisation needs to be properly designed in order to enable manager fully utilize resources at their disposal efficiently and effectively. Therefore it is essential for adequate and timely accounting information system to be put in place for business management. In designing an Accounting information system, the practice and study of accounting is combined with information system.

2.2.2 Characteristics of Accounting Information Systems

If accounting information is to achieve its anticipated objectives, reflects its importance and meets its functions, it should have some basic attributes, qualities and

properties. These attributes, generally refer red to as characteristics, should be outstanding parameters to measure the effectiveness and quality of accounting information. According to Srinivas and Gopisetti (2012), these characteristics have the aim of guiding the accounting administrators in developing accounting standards and also guide the accountants in assessing the accounting information by way of distinguishing between what is necessary and what is not in satisfying the broad users of accounting information. Quality information must possess some set of minimum characteristics which are as follows:

- Be provided on timely basis.
- Be presented in an appealing format.
- Be relevant to the decision under consideration.
- Be brief and sufficient in scope to allow "what-if" analysis.
- Be flexible and adaptable with information from other departments.

Researchers (Kanakriyah, 2016; Kanakriyah, 2017; Harash, 2017) on the subject of accounting information system have used different words to explain the characteristics of accounting information system. Kanakriyah (2016), in the research on quality of accounting information, measured accounting information system using three variables to describe the characteristics. These variables are:

- **Flexibility:** This prescribes the adaptation of accounting information system to the dynamic environment of an organisation.
- **Simplicity of Use:** It is important to guarantee the provision of a simple system with user -friendly inter face and operation.

- **Reliability:** Accounting information system need to be dependable and reliable in relation to the information extracted from the system.

2.3 Concept of Financial Performance

Financial Performance is a measure of performance that may not only depend on the efficiency of the company itself but also on the market where it operates. In the financial sector, it is also known as financial stability or financial health. Some of the common financial measures are: revenue, return on equity, return on assets, profit margin, sales growth, capital adequacy, liquidity ratio, and stock prices, among others. Another factor to consider in evaluating the financial performance of a company particularly deposit money banks (DMBs) in relation to competitors within the same specific industry, because each firm is unique and making impact across industries may provide bias interpretation about the performance of a company.

Stewart (2010) is of the opinion that corporate performance is set of financial and non-financial indicators which offer information on the degree of accomplishment of objectives and results. Financial performance is very essential to management as it is an organisation related to its authority and responsibility in attaining the goal legally. Performance can be subdivided into financial and non-financial performance as suggested by Stewart (2010). Financial performance refers to the financial degree to which financial objectives are being or have been accomplished. It is used to measure a firm's overall financial health over a given period and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Non-financial performance is any measure of either an individuals or an entity's performance that is not expressed in monetary units. Nelly (2012) opines that in today's environment where companies compete on the basis of non-financial indicators, they need information on how they are performing across a broader spectrum of dimensions, not only financially but also factors on the customer, employees and the wider community. Non-financial performance includes measure of customer or employee satisfaction, quality, company reputation, market share and competitiveness (Stewart, 2020).

Financial performance is the level of organisation principles, expectations and requirement in meeting the organisational goals and objectives (Folorunsho&Adewale, 2014). Nzuve and Nyaega (2012) are of the opinion that performance is the fulcrum of strategic management because the strategic management because the strategic unit of the business is rational about defining and assessing performance. Okoye and Ezejiofor (2013) are of the belief that organisational performance is a measure of how the organisation is effective in meeting the goals and objectives which is an indication of productivity and competition.

2.3.1 Firm Size and Accounting Information System

Firm size refers to the speed and extent of growth that is ideal for a specific small business. The corporate size may be the most consistent business features connected with the volunteer degree of disclosure. In previous research, different proxies for company size including revenues and market capitalisation, supported the association between company size and voluntary disclosure (Kang & Gray, 2016).Company size is always measured with

some variables like total assets, sales, and number of employees, market capitalization among others. The quantum of assets, both tangible and accounting information systems is a function of the size of a firm. Usually, a large firm should have large assets, tangible and accounting information systems for a defined purpose. Irrespective of the level and kinds of assets, it is expected that firms carry out the full disclosure so as to continually influence the confidence of the potential and existing investors. On the empirical fronts, the studies that have examined the nexus between firm size and overall disclosure of accounting information systems are very scanty and even the few ones produced mixed and conflicting results. Ibadin and Oladipupo (2015) ascertained a positive and significant relationship between firm size and accounting information systems disclosure of quoted companies in Nigeria for the period 2005 to 2010 using panel least square with fixed effect method. The authors posit that even though anecdotal evidence suggests that firm size causes varying levels of voluntary disclosure of accounting information systems, it is obvious that a larger company is more likely to have better disclosure of assets deemed intangible.

2.3.2 Leverage and Accounting Information System

Leverage, literally, is the quantity of fixed-interest bearing capital in the capital structure of the company. Therefore, the use of leverage by many firms implies the inclusion of debt in the capital structure of the firm to finance the activities of the firm. The argument put forward by some proponents of agency theory is that a firm leverage in the capital structure is encouraged to allow for the disclosure of some level of accounting information systems. This suggestion will have the potential of reducing the cost that would ordinarily be

incurred in an agency-principal relationship in a transfer of wealth-usually from debt holders to shareholders. Oliveira, (2006). Leverage is simply concerned with the use of short term debt, long term debts or both at meeting the financing needs of a firm for period by corporate managers. Leverage is used to finance the assets of firms, whether tangible or accounting information systems. Sometimes, it is necessary for managers to ascertain the proportion of leverage (debt) in the accounting information systems of firms and then relate it to the overall performance for the purpose of policy prescription. Just like every other firm level characteristics, the relationship between leverage and firm level characteristics is quite mixed on the empirical fronts.

2.3.3 Profitability and Accounting Information System

Profitability is a reflection of firm performance for a period. The more a firm performs, the better shareholders and potential investors are interested in knowing more about the disclosure of the assets, both tangible and accounting information systems which contribute to the performance. Profitability is the principal goal of all business undertakings. The company will not exist in the long term without profitability. It is therefore necessary to measure present and past profits and to anticipate future profitability. Omoye (2013) provides evidence of the association of higher accounting information system disclosure with higher profitability. The higher the profit, the high voluntary disclosures of accounting information systems by firms; and this attracts potential investors to the firm.

Profitability is the net result of a number of policies and decisions chosen by the management of deposit money banks (DMBs). According to Fahmi (2012), Profitability are

intended to measure the efficiency of the use of company assets. Profitability provides management of the firms the freedom and audacity to be involved in more sustainable growth and development activities (Dabor & Dabor, 2015). Profitability ratio (efficiency and overall performance), which is the ratio to measure overall company performance and efficiency in managing assets, liabilities and assets consisting of gross profit margin, operating profit margin, net profit margin, cash flow margin, ROA, ROE and cash return on assets.

2.5 Theoretical Framework

The study is anchored on the Socio-Technical theory. This theory was developed by Trist, Bamforth and Emery (2011) this theory is based on the principle of ETHICS, an acronym for "Effective Technical and Human Implementation of Computer-based System". The theorist argued that the starting point in technology introduction and implementation is work design rather than system design with emphasis on communication between people and technologies. A system should be designed to be effective and meet both the users and organisation's need and this requires a balance between the technical sub-system and social sub-system which are vital components of the organisation.

2.6 Empirical Review

Zare and Shahsavari (2012) carried out a study on the ability of accounting information to anticipate risk and concluded that the use of accounting information system had improved the productivity and delivery of many organisations through anticipatory risk management.

Awosejo, Ajala and Agunbiade (2014) assessed the level of perception of social and organisational factors and the extent to which accounting information system is adopted by accounting firms in South Africa. It was inferred that usage of accounting information system is accepted fairly within accounting firm in South Africa and the firm were propagating adoption by their clients.

Chenhall (2013), while looking at management control design within an organisational context discovered that most organisations failed due to their non-adoption and implementation of accounting information system. Raymond and Magnenat-Thalmann (2011) asserted in their study that accounting reports and information by some companies fall short of minimum standard due to their failure to adopt AIS. They further stated that standardised accounting reports including the financial statements are computerized by accounting information system and where banks failed to adopt this technology, they will have to produce the reports manually. In addition to non-availability of expertise in accounting and timeliness of producing the report results in shoddy accounting reports.

A study by Muhindo, Mzuza and Zhou (2014) examined the effect of accounting information system on profitability level of some companies in Kampala city of Uganda identified that most small-scale companies experienced low level performance and profitability because they lack accounting information system to drive their businesses. Further revelation from the study was that positive relationship exists between accounting information system and level of profit achieved by small scale companies.

The research conducted by Akanbi, Fashina and Aruwaji (2017) examining the importance of accounting information system adoption revealed that AIS has a positive correlation with long-term strategic goals, competitive strength and market expansion. The study concluded that the importance of AIS adoption cannot be over emphasised in any business setup as it is evidenced that it will improve non-financial performance like longer-term strategic goals, market expansion and competitive strength.

The study by Al-dmour, Al-Fawaz, Al-dmour, and Allozi, (2017) discussed generally on business performance with no reference to financial institution, it confirmed that implementing a proper AIS is an enabler to competitive advantage and causal links were found to exist between AIS and firm performance.

Sajady, Dastgir and Nejad (2018), however emphasised that AIS adoption will only be valuable where the benefits outweighed the cost of adoption and ascertained that non-adoption of AIS will not be of negative consequences where the adoption and implementation costs of AIS is in excess of the perceived benefits.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methods, procedures and sequential steps adopted in order to achieve the objectives of the study. The chapter presents a description of the research design, the population and sample for the study, the method of data collection, the model specification, and operationalization of the variables and the method of data analysis.

3.2 Research Design

The research design tool adopted in our study is the longitudinal research design. This design is adopted so as to pool together some deposit money banks operating on the Nigerian Exchange Group (NGX). It is longitudinal because the study is over an extended period from 2018 to 2022 and tries to explain the relationships among variables. To this end, data for this study were collected on different variables at different points in time without any attempt on the part of the researcher to influence the data.

3.3 Population of the Study

The population size will serve as the sample size since the population size is small. The researcher decides to analyse all the population size since the population size is manageable. Below is the list of selected banks; Access Bank, Eco Bank, Fidelity Bank Nigeria, First Bank Nigeria, First city monument Bank, Guaranty Trust Bank, Stanbic IBTC Bank Nigeria Limited, Standard Chartered Bank, Sterling Bank, United Bank for Africa, Unity Bank PLC, Wema Bank and Zenith Bank plc.

3.4 Sample and Sampling Technique

The sample is the sub-set of the population selected for the study in place of studying the entire population. Neuman (2016) observe that sampling involves examining a representative number of items out of the whole population which enables the gaining of an understanding about some features or attributes of the whole population, based on the characteristics of a sample. Given that the target population was thirteen banks listed on the Nigeria Stock Exchange, a census approach to the study was appropriate. Mugenda and Mugenda (2013) note that when the population is too small, census is the most preferred method. Thirteen banks listed on the Nigeria Stock Exchange over the entire period from year 2015 to year 2019 were studied.

3.5 Sources of Data

The secondary data is the source of data used in this study. The secondary data were selected from published annual financial statement for five years, that is, from 2018-2022 of the selected firms in Nigeria.

3.6 Model Specification

The model for this study is a follow up of the model put forward by Kang and Gray (2011). However, the model for this study is stated in mathematical form as:

AIS= f(FSIZE, LEV, ROA)

The above function is stated in stochastic form as:

$AS_{it} = \beta_0 + \beta_1 FSIZE_{it} + \beta_2 LEV_{it} + \beta_3 ROA_{it} + \varepsilon_{it}$

Where:

AIS = Accounting Information System

FSIZE = Firm Size

LEV = Leverage

ROA = Profitability

$\beta_0 ... \beta_3$ = Coefficients

ε = Error term

i = Firms over a cross section

t = Time over a period

Apriori Sign: $\beta_1 > 0$, $\beta_2 < 0$, $\beta_3 > 0$

3.7 Operationalization of Variables

This section looks at how the dependent variable and independent variables will be operationalized:

Table 3.1: Measurement of Variables and Expected Signs

S/N	Variables	Definition	Type of variable	Measurement	Used by	Apriori sign
1	AIS	Accounting Information System	Dependent	AS =∑(di)/m	Kang & Gray (2011); Ibadin (2013)	
2	FIRMSIZE	Firm size	Independent	Natural logarithm of total assets	Oliveira etal. (2006)	+
3	LEV	Leverage	Independent	Total liability / Equity	Whiting*et al.* (2011), White *et al.* (2007)	+/ -
4	ROA	Return on Assets	Independent	Net Income before tax / Total Assets	Al-Hamadeen&Suwaidan (2014)	+

Source: Researcher's Compilation from Various Source (2023)

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter focuses on the presentation, analysis and interpretation of the data collected for the purpose of the study. It basically entails the application of statistical and econometrical estimation techniques to provide the basis for testing of the research hypotheses. This part is always very important in any study in that it forms the basis for recommendations and conclusion at the end of the study. The preliminary analysis of data is evaluated using descriptive and correlation analysis. Thereafter, the regression analysis of the study was conducted using the Panel Estimation Least Squares (EGLS) after the application of Hausman test to determine preference for either the random effect or fixed effect. This was made after carrying out several diagnostic or assumption tests. The results are presented and interpreted as follows:

4.2 Summary of the Levin-Lin-Chiu Panel Unit Root Test

Table 1: Panel Unit Root Test at Level

Variables	Adjusted t- statistics	Adjusted t-critical value	Remark
AIS	-37.866	0.0000	Stationary at level
ROA	-2.600	0.0000	Stationary at level
LEV	-11.405	0.0000	Stationary at level
FSIZE	-3.600	0.0000	Stationary at level

Source: Author's computation from E-views 8.0 version (2023).

The table above presents summary results of the unit root test at 5% using Levin-Lin- Chin version of the stationary test. The Levin-Lin-Chiu adjusted statistic result is compared against the t- critical values at 5%. It can be observed that all the variables were stationary at level. This portends that there is absence of unit root effects in the variables, thus removing possible spuriousness. Given that the time series used are stationary, it then affords the study to conduct the preliminary analyses, diagnostics tests and apply the appropriate econometric estimation.

4.3 Diagnostic tests

Table 2: Diagnostic Tests Result

Variance inflation factors (VIFs)		
	Coefficient variance	Centered VIF
C	0.00	NA
ROA	9.20	1.10
LEV	2.49	1.70
FSIZE	0.00	2.05
Breusch – Godfrey – serial correlation LM test		
F-statistic = 33.07	Prob.F(2, 166)	0.00
Obs * R-squared = 49.86		Pro. Chi-square (2) 0.00
Heteroskedasticity test		
F-statistic 2.59	Prob. F(6,168)	0.01
Obs * R-squared 14.86	Prob. Chi-square (6)	0.02
Ramsey Reset Test		
t-statistic = 0.00	Df = 167	0.99
F-statistic = 5.74	Prob.F(1, 167)	0.99

Source: Researchers' compilation from E-view 8.0 (2022)

The diagnostic table above shows that the variance inflation factor (VIF) statistic is less than 10 (Centered VIF < 10) for each of the variables. This indicates absence of multicollinearity among the explanatory variables. The ARCH: Heteroskedasticity Test demonstrates the presence and the variance of the normal least square estimator is therefore confirmed (0.00> 0.05). The serial LM test result from Breusch-Godfrey 0.00 = 0.05) shows that there is no higher order correlation. The result of the Ramsey Reset Test of (0.99> 0.05) confirms the validity of the regression model. Neter, Wasserman and Kutner (1990) suggested the use of VIF as a method of detecting the presence of multi-collinearity. They suggested the value of 10 or more as an indication of the presence of severe multi-collinearity. Autocorrelation is a test for validation of model in statistical research. The presence of autocorrelation in a model invalidates the regression model by underestimating the coefficients of the variables. The approximation of Durbin-Watson value of 2 shows the absence of autocorrelation (Durbin & Watson, 1971). Heteroscedasticity has a major effect on the regression model. Its presence also invalidates the statistical test of significance in the regression model.

4.4. Descriptive analysis

Essentially in this section, interpretation of the summary statistics is presented. The result of the descriptive statistics is presented in table 3:

Table 3: Descriptive Statistics

	AIS	ROA	LEV	FSIZE
Mean	0.222634	3.296000	65.76989	7.800629
Median	0.222000	2.050000	67.51000	7.410000
Maximum	0.444000	53.96000	100.0000	9.680000
Minimum	0.000000	-26.95000	12.39000	5.820000
Std. Dev.	0.123385	9.261779	22.13724	1.117074
Skewness	-0.388948	2.280974	-0.381569	0.222525
Kurtosis	2.502856	15.71548	1.952734	1.634501
Jarque-Bera	6.214492	1330.692	12.24379	15.04022
Probability	0.044724	0.000000	0.002194	0.000542
Sum	38.96100	576.8000	11509.73	1365.110
Sum Sq. Dev.	2.648945	14925.82	85270.01	217.1268
Observations	175	175	175	175

Source: Author's Computation from E-views 8.0 (2023)

Accounting system has a mean value of 22.22%, the maximum value is 44.4%, the standard deviation revealed that the spread of the distribution is 0.12; its slightly below above average variability from the mean in the period observed. It further reveals that there is a little variability or risk associated with the accounting system disclosure in the period considered. Accounting system was negatively skewed (-0.38) and it has positive kurtosis (2.50). The Jarque-Bera value of 6.21 indicates that accounting information system (AIS) satisfies normality.

Return on assets (ROA) mean value is 3.29%, the maximum mean is 53.96, the standard deviation is 9.26, ROA is positively skewed (2.28), the kurtosis is also positive (15.71). The Jarque-Bera value of 1330.69 is statistically significant 5 % level and satisfies normality.

Leverage which a combination of short and long term debts has a mean value of #6576988; the maximum value is #1000000 the standard deviation is 22.13 and it is relatively large and vary markedly from the mean in, the skewness is negative with a value of -0.38, the kurtosis is 1.95, the Jarque-Bera value of 12.24 is statistically significant at 5% level and also does not satisfy normality.

Firm size has a mean value of #7800629; the maximum mean is #9680000, the standard deviation is 1.11, the skewness is 0.22, and kurtosis is 1.63. The Jarque-Bera value of 15.04 is statistically significant at 5%, level, thus connoting that the data did not satisfy normality.

4.5 Correlation Matrix

Table 4: Correlation Result

	AIS	ROA	LEV	FSIZE
AIS	1			
ROA	0.005	1		
LEV	0.190	-0.183	1	
FSIZE	0.420	-0.144	0.604	1

Source: E-view 8.0 Output (2023)

The Pearson's correlation matrix above shows the association between accounting information system (AIS) and all explanatory variables. As expected, accounting information

system (AIS) is positively correlated with return on assets (ROA) (r = 0.005); leverage (LEV) (r = 0.190); and firm size correlation (FSIZE) (r = 0.420); respectively. It implies that all the firm characteristics variables are related together towards contributing to accounting information system (AIS) in the period observed. The finding supports the agency and stakeholders' theory and goes in tandem with the finding of Alves and Martins (2010) and Return on assets (ROA) are positively correlated (r = 0.123, r = 0.240) towards engendering accounting information system (AIS) in Nigerian quoted firms. Thus, the higher the profitability (ROA) of the firm and use of high audit quality, the better is the reflection of firms' tendency to engage accounting information system. Return on asset (ROA) and firm age are positively associated towards influencing accounting information system (r = 0.200, r = 0.009). Return on assets (ROA) and leverage are positively related (r = 0.183, r = 0.190). This positive association implies that a lower amount of debts cause improvement in profitability. These two firm characteristics variable connotes that they influence accounting information system. The finding corroborates with the view of Gerprott *et al.* (2008) where they opined that accounting information system such as highly skilled employees or sophisticated organisation process contributes to achieving a high level of efficiency attaining efficiency suggests that management is able to minimise every expenses with available strategy including the strategy to employ optimal mix of debts: Return on assets (ROA) and firm size are positively related (r = 0.144, r = 0.420). Firm size therefore has a relationship with profitability. A longer firm should drive performance given that all other

factors are held constant. Both the increase in size of firms and profitability are therefore influencing factors on accounting information system in quoted firms in Nigeria.

4.6 Presentation of Multivariate Analysis

The panel least squares with either the random effect or fixed effect result is presented and analysed. The acceptance of either the fixed effect result or random effect result is predicated on the outcome of the Hausman test. Thus, the result of the Hausman test is presented as follows:

4.6.1 Presentation of Hausman Test Result

Table 5: Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.321172	6	0.7676

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
ROA	-0.001819	-0.001015	0.000001	0.2591
LEV	-0.000364	-0.000744	0.000001	0.6737
FSIZE	-0.085133	0.044017	0.009452	0.1840

Source: E-view 8.0 output (2023)

The result of the Hausman test above showed that the random effect is preferred since the probability chi-square value is greater than 5% significant level. Following this, the result of the cross-section random (dummy variable) effect is presented below

4.7 Random Effect Model Regression Equation

Table 6: Random Effect Results

Cross-section random effects test equation:
Dependent Variable: INTAD
Method: Panel Least Squares
Sample: 2018 2022
Periods included: 5
Cross-sections included: 42
Total panel (unbalanced) observations: 175

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.719551	0.656371	1.096255	0.2750
ROA	-0.001819	0.001308	-1.389972	0.1670
LEV	-0.000364	0.001152	-0.315713	0.7527
FSIZE	-0.085133	0.098644	-0.863030	0.3897

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.770099	Mean dependent var	0.222634
Adjusted R-squared	0.685018	S.D. dependent var	0.123385
S.E. of regression	0.069248	Akaike info criterion	-2.274284
Sum squared resid	0.608994	Schwarz criterion	-1.406229
Log likelihood	246.9999	Hannan-Quinn criter.	-1.922176
F-statistic	9.051333	Durbin-Watson stat	2.406601
Prob(F-statistic)	0.000000		

Source: E-view 8.0 Output (2022)

The R-squared value being coefficient of determination from the fixed effect result above is 0.77; implying that about 77% systematic variation in accounting information systems disclosure is explained by the independent variables, firm characteristics, leaving only 23% unaccounted due to the presence of the stochastic error term. After adjusting for the degree of freedom, the adjusted R-squared dropped to 0.685. If suggests that about 68.5% systematic variation in accounting information system (AIS) is explained by financial performance, leaving 31.5% unexplained as a result of the stochastic error term in the construct. It can be inferred from the analysis that the firm characteristics such as return on asset (ROA), leverage, firm size and ownership concentration contribute largely in determining accounting information system (AIS) in Nigerian quoted firms. The f-statistic of 9.05 compared with the prob (f – statistic) is statistically significant at 1% level. This reveals the goodness of fit of the model. The individual coefficients of the explanatory variables reveals that a unit change in return on assets (ROA) causes 0.00 units decrease in accounting information system and is not statistically significant at 5% level.

Leverage as one of the firm characteristics shows that a unit change in it results to 0.00 units reduction in accounting information systems disclosure and statistically not significant at 5% level. A unit change in firm size results to 0.68 units decrease in accounting information systems disclosure in the sampled quoted firms and is not statistically significant at 5% level. The implication of the result is that the longer the size of a firm, the less they are prone to accounting information system.

4.8 Endogeneity Relationship between Firm Characteristics and Accounting information systems Disclosures

Table 7: Panel Generalized Method of Moment Result

Variables	GMM	Fixed Effect
Model		
C	9.301	0.719
T- value	(0.899)	(1.096)
Prob.	[0.368]	[0.270]
ROA	1.970	-0.001
T- value	(2.378)	(-1.389)
Prob.	[0.018]	[0.167]
LEV	-5.700	-0.000
T- value	(-5.084)	(-0.315)
Prob.	[0.000]	[0.752]
FSIZE	1.010	-0.085
T- value	(1.990)	(-.863)
Prob.	[0.047]	[0.389]
R – Square	0.885	
Adjusted-R-squared	0.873	
Durbin-Watson stat.	1.778	
Instrument Rank: 6.		

Source: E-view 8.0 Output (2022)

The GMM regression result in the table above shows that the adjusted R-Squared model explained about 88% systematic variation in accounting information systems, leaving about 12% unaccounted for due to the presence of stochastic error term. The coefficient of the variables showed that a unit change in profitability (ROA) and size as indicators increases accounting information system disclosure of the sampled companies in the period

observed and they were statistically significant at 95% levels. The Durbin Watson statistics value of 1.778 corrects for the problem of autocorrelation in the regression result. This absence of the autocorrelation implies the result is quite useful for policy prescription in this study.

4.9 Hypotheses Testing

Under this sub-section, the hypotheses raised in the introductory chapter are recasted and tested. Here the result of the panel fixed effect is applied in testing the hypotheses.

$H0_1$: Firm size has no significant effect on accounting information systems of listed deposit money banks in Nigeria. The coefficient value of firm size is negative and not statistically significant. This leads to the acceptance of the null hypothesis that Firm size has no significant effect on accounting information systems of listed deposit money banks in Nigeria. Hence, the alternative hypothesis is rejected.

$H0_2$: Leverage has no significant impact onaccounting information systems of listed deposit money banks in Nigeria. The coefficient of leverage from the fixed effect panel result is negative (- 0.00) and not statistically significant at 5% level. Hence, the null hypothesis is accepted while the alternative hypothesis is rejected. The implication of the finding is tLeverage has no significant impact onaccounting information systems of listed deposit money banks in Nigeria.

$H0_3$: Profitability has no significant influence on accounting information systemsof listed deposit money banks in Nigeria. The coefficient of the explanatory variable (ROA) is

negative and not statistically significant at 5% level. Thus, the null hypothesis is accepted and the alternative hypothesis rejected.

$H0_6$: Firm age has no significant effect on accounting information systems disclosure in Nigerian listed firms. Since the coefficient of firm age is positive (0.00), it can therefore be deduced that the null hypothesis is rejected while the alternative hypothesis is accepted; meaning firm age significantly contributes to the disclosure of accounting information systems in the Nigerian listed companies.

4.10 Discussion of Findings

The relationship between accounting information systems and financial performance is positive. The implication of the finding is that financial performance largely determine accounting information system in Nigerian quoted firms.

The individual coefficients of the explanatory variables reveals that return on assets (ROA) causes a decrease in accounting information systems and is not statistically significant. It is a pointer that profitability is not really a significant contributor to the accounting information systems of Nigerian listed firms. Higher profitability results to a lower level accounting information systems. The finding is contrary to the assertion of Prencipe (2004) and stands of agency theory. It is not in tandem with Ousams *et al.* (2012); Broberg *et al.* (2010); Hanniffa and Cooke (2002). However, the empirical finding agrees with Hossain and Hammami (2009); Oliveira *et al.* (2006); and Gerpott*et al.* (2008) who found profitability not significant in the accounting information systems of quoted firms.

Leverage as one of the firm characteristics result to a reduction in accounting information systems and statistically not significant. This means that the level of debt might not be an indicative factor of the level of disclosure but rather the amount of debt in the capital structure. The empirical finding agrees with the study of Kang and Gray (2011), Oliveira *et al.* (2006); Broberg *et al.* (2010); Prencipe (2004), White *et al.* (2009) and Williams (2001) and is contrary to Bozzolan, Favotto and Ricceri (2003); Ferreira *et al.* (2012) and Omoye (2013).

Firm size results was found to negatively affect accounting information systems in the sampled quoted firms and is not statistically significant but not in line with apriori expectation. The implies that larger firms will not voluntarily disclose their accounting information system because firms that have grown over the years must have maintained good customer relationship (goodwill) which is one of the major sources of income as regard accounting information system. Anyway, this finding is contrary to theoretical stance. Longer firms are supposed to be abreast of the implication of accounting information systems compared to small firms. Longer firms are presumed to be more experienced in management of assets and stick to regulatory framework given that they know the serious implication of not engaging in full disclosure of assets. While the finding agrees with Olibeira *et al.* (2006); White *et al.* (2007); Kang and Gray (2011); Nurunnabi *et al.* (2011); Taliyang *et al.* (2011), it is however contrary to studies like Branswijck *et al.* (2012), Dasilva *et al.* (2013) and Al-Hangdeen and Suwariden (2014).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the study findings, the conclusion and recommendations. The study investigates effect of accounting information systems and financial performance of Nigerian listed firms.

5.2 Summary of Findings

The summary of the study findings were presented below;

1. Firm size did not exert significant impact on accounting information systems in Nigerian listed firms.
2. Leverage was found to cause a decrease in the disclosure of accounting information systems in Nigeria and was not statistically significant.
3. Profitability does not exert significant impact on the disclosure of accounting information systems in Nigerian quoted firms.

5.3 Conclusion

The major conclusion of this study is that quality accounting information in terms of relevance to users contributes significantly to the performance of bank both financially and in terms of service delivery. This we conclude is as a result of the fact that the use of such information for decision making is bound to yield the desired results.

5.4 Recommendations

Based on these empirical findings made, the following policy recommendations are suggested:

1. More effort should be directed towards the production of good quality accounting information in all the commercial banks in Nigeria in order to improve financial performance. Such information should be free from systematic or deliberate bias, material or significant error, complete and not fraudulent with high levels of predictive and confirmatory value. Accounting practices that tend to over or understate, or even delay the reporting process should also be avoided.
2. Commercial banks in Nigeria are advised to employ highly skilled competent professional accountants to generate the financial information.
3. Training workshops and seminars aimed at sensitizing commercial bank's accounting and record keeping staff and other key decision makers should be organized. This would enhance awareness of stakeholders of the need for good, quality, reliable and timely information to enhance proper financial management practices.

In addition to the above, management of DMBs should consider improvement of accounting information system as an ongoing process and should not be stopped after achievement of success at a specific phase. It is important to constantly update the accounting information system to be at par with the accelerating developments in the modern business environment. A periodic evaluation of investment in technology, specifically those relating to accounting information, should be carried out and ensure that adequate mechanisms are in

place for storage and archiving of accounting information. Regulators should improve on policy guidelines on the processing of accounting information that will ensure output of information that will faithfully represents the reality about the operations of the DMBs.

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