

Determinants of Internet Financial Reporting of Listed Deposit Money Banks In Nigeria

Modibbo Abubakar

Department of Accounting
Federal University Birnin Kebbi-Nigeria
modibbo.abubakar@fubk.edu.ng

Kabiru Umar

MSc Accounting and Finance Student
Department of Accounting
Ahmadu Bello University Zaria
Kabiruumar92@yahoo.com

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ABSTRACT

Internet financial reporting is gradually removing the paper-based report and increases the number of audience that could access the reports. The reporting entity can benefit from cost saving and improve their financial reporting strategies. Financial statements users can benefit by getting financial information in more breadth and depth that is, information consumers can obtain financial information more easily than before. In Nigeria collecting annual reports from companies have not been easy; hard copies of annual reports were rarely dispensed, and when dispense not everybody can get them. The internet as a unique information dissemination tool in recent time encourages flexible forms of presentation and permits communication with an unlimited number of potential and existing shareholders. This study examined the determinants of internet financial reporting of deposit money banks in Nigeria. Secondary sources of data was used, and checklist technique was employed to measure internet financial reporting index of the sample banks, for a period of 5 years (2010-2014). Correlation research design and the panel regression technique of data analysis were adopted. The study found a significant positive association between firm size, auditor type and profitability and internet financial reporting proxy. The study concludes that bank profitability and size are a significant determinants of internet financial reporting (in terms of contents and presentation) in the Nigerian banking industry during the period covered by the study. The study on the other hand concludes that the type of auditor did not significantly determine the contents and presentation of financial reports on internet by Nigerian banks. Specifically, the study is of the opinion that profitability and size of the firms are a critical factor in promoting reporting on internet, which improve transparency of the reports and minimizes information asymmetry as well as the agency cost. The study recommends that the regulators of the Nigerian banking industry should make policy that could encourage reporting on internet and possible regulations of internet financial reporting. Managements of the deposit money banks in Nigeria should increase efforts towards creating a user friendly website for reporting financial and corporate activities for the wider audience.

Keywords: Internet Financial Reporting, Financial Information, Deposit Money Banks.

1.1 INTRODUCTION

Financial reporting as an act of making financial statements and other relevant corporate information. Public has been affected by the emergence of Information and Communication Technology (ICT). One of the attributes of the present information era is the real time accounting needs by financial statements users, which ICT tends to provide. The main objective of accounting has been to provide adequate relevant information to the users for credit, investment and other economic decisions. For instance, investors and financial analysts rely heavily on corporate financial reports to carry out their duties effectively. Moreover, adequate provision of corporate information affects capital market liquidity, reduces information asymmetry and makes the market to be efficient.

Howard and Kanya (2004) state that due to the dynamic business world, traditional paper-based corporate reporting is becoming less timely and thus less useful to decision makers. Therefore, firms must improve their communication strategy to be more efficient. In order to achieve efficient communication of financial reports listed companies in some countries are required to provide audited quarterly and annual financial statements on the Web. The internet has recently provided accountants with an incredible opportunity to tell the corporate stories in ways previously unimaginable. Thus, the manner in which accounting profession faces this system will determine its role in the financial reporting on the web in the future.

Internet financial reporting (IFR) has gradually removed the paper-based report and increases the number of audience that could access the reports. Moreover, the reporting entity can benefit from cost saving and improve their financial reporting strategies. Financial statements users can benefit by getting financial information in more breadth and depth. Additionally, information consumers can obtain financial information more easily than before. For instance, in Nigeria collecting annual reports from companies was not easy; hard copies of annual reports were rarely dispensed, and when dispensed not everybody could get them.

In contrast, the internet as one of the information dissemination tool in recent time encourages flexible forms of presentation and permits communication with an unlimited number of potential and existing shareholders. Although, majority of IFR practice is voluntary globally and is unregulated mostly, financial information provided on corporate websites varies across companies and ranges widely from required Securities and Exchange Commission (SEC) filings to various

unaudited and forward-looking voluntary disclosures (Khan and Ismail, 2011). According to them, IFR supports presentation methods that are not available in traditional, paper-based financial reporting, such as hypertext, multiple file formats (i.e. pdf, text-based), and multimedia.

Most corporate organizations in Nigeria have websites used to deliver corporate information to investors, to promote corporate identity, distribute information regarding an organization and its activities, and presenting financial information to shareholders, investors and other important parties. However, in spite of the tremendous benefit if IFR companies in Nigeria are still lagging behind compared to those in other economies in communicating with stakeholders via the internet. It is on this light that researchers argue on which factors that determine the IFR in terms of contents, timeliness, presentation, technology and user-friendly/support.

For instance, Khan and Ismail (2012) states that in view of the Internet as a cheap but powerful communication device, disclosure of financial and non-financial information on the Internet is becoming an increasingly popular subject of research. Hence, companies that report financial information on their websites are larger, more leveraged, have more concentrated ownership, have more international investors, and more recent than check-web-based companies (Momany and Al-Shorman, 2006). As to the questions on what determine IFR, Ismail (2002) states that the probability of a firm to publish financial information on the Internet does not only depend on individual characteristic, but on a combination of interaction effects among firm characteristics (size, leverage, and profitability), industry type, and country. It is against this background that this study attempt to examine the determinants of internet financial reporting of deposit money banks in Nigeria.

STATEMENT OF THE PROBLEM

Internet financial reporting has been the major platform of information dissemination among the corporations and its use is getting broader. This has changed the method in which a company delivers information to their shareholders, clients, suppliers and other customers (Bonson & Escobar 2006). This makes companies' websites an important medium for corporate reporting and distributing information regarding an organization and its activities. Previous studies have shown that many companies worldwide have published their financial information via the Internet; and that the increase in the number of companies reporting their financial report through the Internet had a big impact on

legislation, financial framework and information systems (Khan 2006). Internet-based reporting has also been dubbed as more influential than paper-based reporting (Debreceeny, Gray & Rahman 2002) and has turned out to be more important and interesting, thus, providing a wider opportunity for deeper exploration.

While several researches have been conducted in relation to **IFR**, there are still enquiries that need to be addressed, especially in the context of Nigerian banking industry, which is in the forefront of internet financial reporting in Nigeria. Among the outstanding research questions, is the question concerning current **IFR** status in Nigeria and the possible factors that determine the IFR. So far in Nigeria, issues related to **IFR** have not received much attention from researchers, therefore presenting a gap for this study to fill.

This is because, most companies in Nigeria did not take full advantage of the computer technologies to add value to the financial disclosures. For instance, companies employ a rather conventional web presentation, with text and static graphics, equivalent to a paper presentation. In addition, some companies provide a full set of annual reports, while some ones present only summary financial statements. Other issues that need research attention include the quality pertaining to timeliness, which also varied with just as many firms providing timely data, as those who present outdated information. Moreover, there is substantial variation in the quality and extent of firms' IFR practices, which could be explained by investigating the determinants of IFR by firms. Understanding the determinants of IFR could address the issue of lack of formal guidance and the huge differences in the nature and extent of reporting on the web, which are likely to raise issues concerning the comparability and reliability of financial reports. This study therefore intends to provide answers to the following research questions: what are the determinants of IFR of the deposit money banks in Nigeria?

OBJECTIVES OF THE STUDY

The main objective of the study is to examine the determinants of internet financial reporting of deposit money banks in Nigeria. The specific objectives of the study are:

- i. To assess the effect of firm size on the Internet Financial Reporting of Deposit money banks in Nigeria.
- ii. To examine the effect of profitability on the Internet Financial Reporting of Deposit money banks in Nigeria.

- iii. To determine the effect of auditor type on the Internet Financial Reporting of Deposit money banks in Nigeria.

HYPOTHESES OF THE STUDY

In line with the research objective and problem, the following research hypotheses are formulated in null form for the study;

- H₀₁: Firm size has no significant effects on the internet financial reporting of deposit money banks in Nigeria.
- H₀₂: Profitability has no significant effects on the internet financial reporting of deposit money banks in Nigeria.
- H₀₃: Auditor type size has no significant effects on the internet financial reporting of deposit money banks in Nigeria.

SCOPE AND SIGNIFICANCE OF THE STUDY

This study investigated the determinants of IFR of banks in Nigeria. The need for real-time information on corporate activities makes this study a significant and necessity. One of the major benefits of this research is that, it contributes to the existing IFR literature in Nigeria, and information presentation literature in several ways. As there are no any prior studies that test the impact of firm specific characteristics on IFR in Nigeria. As IFR disclosure are considered necessary measures to protect shareholders, the findings of this study will provide empirical evidence to policy makers and regulators for implementing new requirements and IFR guidelines and regulations. Moreover, the study will be beneficial to shareholders, investors, creditors, managers, students and researchers. Specifically, the findings from the research is important motivation for future research on the effects of Internet presentation formats and also to standard setters who must monitor the financial reporting process and protect the interests of financial information users.

The study is restricted to deposit money banks listed on the Nigerian Stock Exchange (NSE) market through 2010 to 2014. The determinants of IFR investigated in the context of this research are the firm size, firm profitability and auditor type or size, while IFR considered in the study are the contents and presentation items. The contents and presentations are considered because prior research has shown that the manner in which information is presented to, can influence the judgment and decision-making process and decision outcomes (Dull et al. 2003, and Rose et al. 2004). The study covers a period of five years (2010-2014).

2.1 LITERATURE REVIEW

Prior empirical research has examined the incentives and determinants of the level of information provided on a firm's web site and the format in which the information is presented. Different dimensions and framework have been used in the analysis; Xiao et al., (2005) argued that a four dimensional framework are the nature of change in financial reporting (content, form or both), the role of the Internet (as problem solver, problem creator or both), the determinant of change (technology, non-technology, or both) and the pace of change (little or no change, progressive change and radical change).

Ashbaugh et al. (1999) as one of the first studies to examine the IFR issue document IFR practices and provide preliminary evidence on why some firms disseminate financial information on their corporate web sites, while others do not. The results indicate that firms engaging in IFR are larger and more profitable than those not engaging in IFR. Furthermore, firms responding to their survey indicated that disseminating information to shareholders was an important reason for establishing an Internet presence. A study by Debreceeny et al. (2002) using a cross-country analysis found that firm size, listing on U.S. securities market and the level of technology are significantly positively associated with the level of Internet financial reporting. Ettredge et al. (2002) examined the characteristics of IFR firms and document a significant positive association between voluntary Internet financial disclosures and factors such as firm size, demand for external capital, information asymmetry, and disclosure quality ratings. Xiao et al. (2004) find significant association between Internet-based disclosure choices and the multiclass of ownership structure, such as government agencies ownership, state-owned corporations' ownership, and legal person ownership. Debreceeny et al. (2002) and Ettredge et al. (2002) examine both the internet content and presentation methods of disclosure, while Xiao et al. (2004) measure IFR in multiple dimensions (i.e., content, presentation methods, mandatory items, and voluntary items). Kelton and Yang (2004) investigates the effect of corporate governance mechanisms on Internet financial reporting (IFR) behavior. They rely upon agency theory to predict an association between the extent of a firm's Internet disclosure behavior and its corporate governance structures. Specifically, they measure IFR by disclosure content, presentation format, required filings, voluntary disclosures, and corporate governance disclosures. The study found that firms with weak shareholder rights and a higher percentage of independent directors are more likely to engage in IFR. Interestingly, these firms are also more likely to provide disclosure regarding their

corporate governance structures on their corporate web sites. Pervan (2006) showed that the IFR score was statistically significantly and positively correlated with size, profitability, number of shareholders, and amount of traffic on the stock markets. AllamandLymer (2003) used the internet financial reporting index to test the existence of a relationship between the size and the IFR level of companies and their study show that no relationship was found to be significant in any of the five countries with exception to Australia. Alanezi (2009) shows that internet financial report is significantly influenced by the auditor type, company size and industry type. Al-Moghawli (2009) also shows that there is a significant relationship between the engagement of IFR and company size, profitability, and ownership structure. Lai et al (2010) shown that the cumulative abnormal return of the firms with IFR is significantly higher than those of the firms without IFR. Damaso and Lourenco (2011) show that empirical evidence supporting the importance of the company size in the determinants of internet financial report. However, it was found a negative relationship between the IFR and the leverage and ownership concentration. But this is inconsistent with Mensah (2012) who found that profitability and leverage are important determinants of internet financial reporting. Firm size, liquidity and auditor size are not significant explanatory variables for the internet reporting index.

The review of the existing empirical studies on the determinants of IFR revealed that most of the researches are conducted abroad, no attempt was made in Nigeria to investigate the determinants of internet financial reporting. This has provided a gap in literature to use a Nigerian data and investigate the determinants of internet financial reporting.

THEORETICAL FRAMEWORK

Several recent studies have attempted to address and provide theoretical framework of internet financial reporting by using theories on voluntary disclosure (Ettredge et al. 2002; Debreceeny et al. 2002; Xiao et al. 2004) to generate hypotheses. For instance, Ettredge et al. (2002) classify IFR into required filings (disclosures that are required by the SEC) and voluntary disclosures and investigate whether Internet dissemination of both types of data can be explained by theories of incentives for voluntary disclosure by traditional methods. The results show that the presence of required items on a company's web site is associated with size and information asymmetry while the presence of voluntary disclosures is associated with size, information asymmetry, demand for external capital, and disclosure reputation.

In addition to voluntary disclosure theory, Kelton and Yang (2004) argue about agency theory as a framework of IFR. They rely upon agency theory to predict an association between the extent of a firm's Internet disclosure behaviour and its corporate governance structures. According to the agency theory, IFR is a mechanism through which agency problem and information asymmetry could be minimized, due to transparency and timely information through internet. Kelton and Yang (2004) indicate that firms with weak shareholder rights and a higher percentage of independent directors are more likely to engage in IFR. Therefore, this study is underpinned by the theory of voluntary disclosure and agency theory.

3.1 RESEARCH METHODOLOGY

This study employed correlation research design to examine the determinants of internet financial reporting of deposit money banks in Nigeria. The design is chosen because of its effectiveness in the cause and effect researches. The study used secondary data from the financial statements of the sampled deposit money banks for the period of 5 years (2010-2014).

The population of this study comprises of all the 17 most traded deposit money banks listed on the floor of the Nigerian Stock Exchange (NSE) as at 31st December, 2014. However, three banks were not selected due to difficulties in accessing their data. Based on this, the population was reduced to 14 banks, and hence the sample size of the study.

The study adopted panel multiple regression technique of data analysis. Tests for like heteroscedasticity and colinearity were conducted, because their presence they lead to spurious regression problem which can lead to statistical bias. Testing of heteroscedasticity is also informed by the classical traditional regression assumptions which among others require that the variance of the error term has to be constant and the same for all observations (homoscedastic) and the explanatory variables are not perfectly correlated. Failure to ensure that may cause the usual standard error terms of the estimated parameters to be biased and inconsistent. Therefore, robustness tests help produce estimators that are BLUE (Best Linear Unbiased Estimators). The analysis is conducted using Statistics/Data Analysis Software (STATA 11.2).

VARIABLES MEASUREMENT AND MODEL SPECIFICATION

The definitions and measurements of the variables used in this study are presented in Table 1 below;

Table 1: Variables Measurements

Variables	Definition/Measurements
Dependent Variable	
Internet Financial Reporting (IFR)	Defined as the contents and presentation of corporate financial reports and accounts on web. Measured by IFR index in line with Khan and Ismail (2012), Oyelere et al. (2003) Xiao et al. (2004), Aly et al. (2010). See appendix for the checklist items.
Independent Variables	
Firm Size (FSIZE)	Is measured by the natural logarithm of total assets
Profitability (PROF)	is measured by the returns on assets (profit before tax over total assets)
Auditor Type (AUDTYP)	Defined as big4 and non -big4 audit firm. Measured by dichotomous variable (1 and 0); 1 if a firm is audited by a BIG4 audit firm (Deloitte and Touch, Ernst and Young, KPMG, Pricewaterhousecoopers), and 0 for otherwise.

Therefore IFR index is determined as follows

$$IFR = \frac{\text{Total real score obtained by a bank}}{\text{Total Maximum Scores}}$$

The total maximum scores is 50, comprises of 32 internet contents items and 18 internet presentation items.

MODEL SPECIFICATION

To measure the determinants of internet financial reporting of deposit money banks in Nigeria, the following model is estimated:

$$IFR_{it} = \beta_0 + \beta_1 FSIZE_{it} + \beta_2 PROF_{it} + \beta_3 AUDTYP_{it} + \mu_{it} \dots \dots \dots i$$

Where;

- IFR_{it} = Internet financial reporting of bank I in year t
- FSIZE_{it} = Firm size of bank I in year t
- PROF_{it} = Profitability of bank I in year t
- AUDTYP_{it} = Auditor type of bank I in year t
- β₀ = the intercept/constant;
- β₁ – β₃ = are the parameters;
- μ_{it} = the residual/error term of bank I in year t

4.1 RESULTS AND DISCUSSIONS

This section presents and discusses the results obtained from the tests conducted on the data collected for the study. The section begins with the description of the data collected for the study and then the inferential statistics.

Descriptive Statistics

The descriptive statistics of the data collected for the study is presented in Table 2;

Table 2: Descriptive Statistics

Variables	Mean	SD	Min	Max	skew	Kur	N
IFR	0.6911	0.1482	0.40	0.92	-0.1205	1.8366	70
FSIZE	20.7429	0.7557	19.11	22.19	-0.1602	2.2942	70
PROF	0.0121	0.0396	-0.24	0.065	-4.2450	26.00	70
AUDTYP	0.8143	0.3917	0.00	1.00	-1.6164	3.6127	70

Source: STATA Output (Appendix)

Table 2 presents the summary statistics of determinant of internet financial reporting (IFR) of deposit banks in Nigeria. The Table shows that our measures of IFR, has a minimum value of 0.40 (40%) and 0.92(92%) as the maximum value. The average value of the IFR is 0.6911 with standard deviation of 0.1482, signifying that the data deviate from the mean value from both sides by 14.82. This implies that the data for the investment growth variable is not widely dispersed among the sample banks. The mean value suggested that the sample banks have score 69.11% of the contents and presentation of internet items, while the maximum is 92% and the minimum of 40%. Moreover, the coefficient of skewness of -0.1205 shows that the data is negatively skewed, while the value of kurtosis of 1.8366 indicate the peakedness of the data, that the data did not follow normal distribution.

The table also indicates that the minimum and maximum values of the firm size (FSIZE) are 19.11 and 22.19 respectively, with the mean value of 20.7429 and standard deviation of 0.7557. This indicates that the data which is the natural logarithm of total assets deviate from the mean by 0.7557. While the coefficient of skewness of -0.1602 shows that the data is negatively skewed, and did not follow the normal curve, the value of kurtosis of 2.2942 indicate the peakedness of the data, that the data did not follow normal distribution. The summary statistics from the table shows an average profitability of 0.0121 (1.21% returns on total assets) of the sample deposit money banks in Nigeria, with standard deviation of 0.0396. This implies that the deviation from the mean is 3.96%, suggesting a high dispersion among the sampled banks. The minimum value of profitability is -0.24(loss) and 0.065 (6.5%) as the maximum value. The coefficient of skewness of -4.2450 shows that the

data is negatively skewed, while the value of kurtosis of 26.00 indicate the peakedness of the data, that the data did not follow normal distribution.

Table 2 also indicates that, the minimum and maximum values of the measure of auditor type (AUDTYP) which is dichotomous are 0 and 1 respectively. The mean value of AUDTYP is 0.8143 and standard deviation of 0.3917. This implies that on average 81.43% of the sample deposit money banks are audited by the BIG4 audit firms during the period of the study, while the deviation from the mean is 39.17. The coefficient of skewness of -1.6164 shows that the data is negatively skewed, while the value of kurtosis of 3.6127 indicate the peakedness of the data, that the data did not follow normal distribution. However, the analysis of the descriptive statistics of the data collected for the study suggested that the data is widely dispersed which is an indication of non-normally distributed, as pointed by the higher values of standard deviation of most of the variables and the coefficients of kurtosis and skewness. The study employs the Shapiro Wilk Test for Normal Data.

Table 3: Normal Data Test

VARIABLES	W	V	Z	P-Values	N
IFR	0.9697	1.866	1.357	0.0875	70
FSIZE	0.9813	1.154	0.311	0.3777	70
PROF	0.5841	25.602	7.052	0.0000	70
AUDTYP	0.9191	4.980	3.491	0.0002	70

Source: STATA OUTPUT (Appendix)

The study uses Shapiro-Wilk (W) test for normal data, under this technique, null hypothesis principle is used to check a variable that came from a normally distributed population. The null hypothesis of the test is that; the data is normally distributed. Table 3 indicates that data from IFR, and FSIZE are normally distributed because the P-values are not statistically significant (p-values of 0.0875 and 0.3777 respectively), thus, the null hypothesis (that, the data is normally distributed) is not rejected. On the other hand, the table show that data from PROF and AUDTYP not normally distributed because the P-values are statistically significant at 1% level of significance (p-values of 0.0000 and 0.0002 respectively), thus, the null hypothesis (that, the data is normally distributed) is rejected. This may have effects on the results, as most of the parametric tools of analysis including regression assumed that the data is normally distributed. Following the analyses of the descriptive statistics and normality of the data for the variables of the study, the results of the correlation among the variables is discussed in the following section.

Correlation Results

The summary of the Pearson correlation Coefficients of the variables of the study are presented in Table 4 as follows;

Table 4: Correlation Matrix

VAR	IFR	FSIZE	PROF	AUDTYP
IFR	1.0000			
FSIZE	0.6841 (0.0000)	1.0000		
PROF	0.3451 (0.0034)	0.1381 (0.2543)	1.0000	
AUDTYP	0.3608 (0.0022)	0.4233 (0.0003)	0.0181 (0.8820)	1.0000

P-Values in Parentheses

Source: STATA Output (Appendix)

The correlation result in table 4 presents the results of the degree of associations between the determinants of internet financial reporting and internet financial reporting of listed deposit money banks in Nigeria. The table shows that there is a significant statistical positive relationship between firm size (FSIZE) and internet financial reporting of the sample deposit money banks in Nigeria, from the correlation coefficient of 0.6841, which is statistically significant at 1% level of significance (p-value of 0.0000). This implies that contents and presentation on internet likely increases as the size of bank increases. The result from the table also indicates that there is a significant positive association between profitability (PROF) and internet financial reporting of the sample deposit money banks in Nigeria, from the correlation coefficient of 0.3451 which is statistically significant at 1% level of significance (p-value of 0.0034). This relationship implies that, the contents and presentation on internet likely increases with an increase in firms' profitability. Moreover, table 4 shows a significant positive relationship between the type of external auditor (AUDTYP) and internet financial reporting of the sample deposit money banks in Nigeria, from the correlation coefficient of 0.3608, which is statistically significant at 1% level of significance (p-value of 0.0022). This implies that internet financial reporting likely increases with the use of BIG4 auditor type.

Table 5: OLS Regression Model Summary

Variables	Statistics	Prob.
R Square	0.5401	
Adj. R square	0.5192	
F-Statistic	25.84	0.0000
Mean VIF	1.16	
Hetest: Chi2	1.81	0.1785
Random Effect (LM) Test	1.60	0.1027

Source: STATA Output (Appendix)

The results from table 5 indicate that the explanatory variables of the study (firm size, auditor type and firm profitability) explained 51.92% of the total variations in the internet financial reporting of the listed deposit money banks in Nigeria, from the coefficient of multiple determination (Adjusted R square of 0.5192). The table also shows that the model of the study is fitted at 1% level of significance as indicated by the F-Statistic of 25.84 with the Probability value of 0.0000. However, the Breuch Pagan/Cook-Weisberg test for heteroskedasticity (Hetest) Chi2 of 1.81 with p-value of 0.1785 confirms the absence of the effects of heteroskedasticity, that is, there is constant variance in the residuals (i.e the error terms are homocedastic). The VIF results on the other hand, show the absence of perfect multicollinearity among the independent variables, because the mean Variance Inflation Factor (VIF) is 1.16. This is far below the benchmark of 10, which is an indication of perfect multicollinearity. Moreover, the Breusch and Pagan Lagrangian Multiplier Test for Random Effects indicated that there is no significant statistical variance in the panel, from the Chi2 of 1.60 with p-value of 0.1027, implying that OLS regression model is the most appropriate model for the study. Therefore, the hypotheses of the study are tested in the following section.

Hypotheses Testing

In this section, the hypotheses formulated are tested to conclude the determinants of internet financial reporting of listed deposit money banks in Nigeria. Table 6 present the regression coefficient for the analysis;

Table 6: OLS Regression Coefficients

Variables	Coefficients	t-values	Prob.
FSIZE	0.1188	6.51	0.000
PROF	0.9690	3.08	0.003
AUDTYP	0.0377	1.08	0.284
CONSTANT	-1.8159	-4.95	0.000

Source: STATA Output (Appendix)

The results in table 6 shows that firm size (FSIZE) in the sample deposit money banks in Nigeria has a significant statistical positive impact on the internet financial reporting of the sample banks, from the coefficient of 0.1188 and t-value of 6.51 which is statistically significant at 1% level of significance (p-value of 0.000). This signifies that size of bank significantly influenced the reporting on internet in the deposit money banks in Nigeria. This implies a direct relationship between the size and internet financial reporting during the period. This result is statistically significance and therefore, the study rejects the null hypothesis one (H_{01}), which states that firm size has no significant effect on Internet financial reporting of listed deposit money banks in Nigeria. The study therefore, infers that the size of the banks significantly determined the contents and presentation of financial reports on internets by listed deposit money banks in Nigeria, during the period covered by the study.

The table also show that profitability (PROF) of the sample listed deposit money banks in Nigeria has a significant positive impact on the internet reporting of the banks, from the coefficients of 0.9690 with t-value of 3.08 which is statistically significant at 1% level of significance (p-value of 0.003). This signifies that profitability has significantly influenced the internet financial reporting of listed deposit money banks in Nigeria. This also indicated a direct relationship between the profitability and reporting on internet. Based on this, the study rejects the null hypothesis two (H_{02}), which states that profitability has no significant effect on the internet financial reporting of listed deposit money banks in Nigeria. The study infers that profitability is a significant determinants of internet financial reporting of listed deposit money banks in Nigeria, during the period covered by the study.

Similarly, the table show that external auditor type (AUDTYP) in the sample listed deposit money banks in Nigeria has positive impact on internet financial reporting of the banks, from the coefficients of 0.0379 with t-value of 1.08 which is not statistically significant at all levelsof significance (p-value of 0.284). It implies that internet financial reporting likely increases with the type of external auditor used by banks, but the result lack statistical significance. Based on this, the study failed to rejects the null hypothesis three (H_{03}), which states that auditor type has no significant effect on Internet financial reporting of listed deposit money banks in Nigeria. The study therefore, infers that the type of auditor does not significantly influenced the internet financial reporting of deposit money banks in Nigeria, during the period covered by the study.

5.1 CONCLUSION AND RECOMMENDATIONS

This study examined the determinants of internet financial reporting of deposit money banks in Nigeria. Emanating from the analysis conducted on the data, together with the hypotheses testing, the study found a significant positive association between firm size, auditor type and profitability and internet financial reporting proxy. The study therefore concludes that bank profitability and size are a significant determinants of internet financial reporting (in terms of contents and presentation) in the Nigerian banking industry during the period covered by the study. The study on the other hand concludes that the type of auditor did not significantly determine the contents and presentation of financial reports on internet by Nigerian banks. Specifically, the study is of the opinion that profitability and size of the firms are a critical factor in promoting reporting on internet, which improve transparency of the reports and minimizes information asymmetry as well as the agency cost.

Based on the findings and conclusions from this research, the study recommends that the regulators of the Nigerian banking industry should make policy that could encourage reporting on internet and possible regulations of internet financial reporting. Managements of the deposit money banks in Nigeria should increase efforts towards creating a user friendly website for reporting financial and corporate activities for the wider audience.

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APPENDICES

The names of the banks listed on the floor of the Nigerian Stock Exchange (NSE) as well as their websites are:

S/N	NAME	WEBSITE
1.	ACCESS	www.accessbankplc.com
2.	DIAMOND BANK	www.diamondbank.com
3.	FBN	www.firstbanknigeria.com
4.	FCMB	www.fcmb-ltd.com
5.	FIDELITY	www.fidelitybank.ng
6.	GTB	www.gtbplc.com
7.	SKYE	www.skyebank.com
8.	STANBIC	www.stanbicibtc.com
9.	STERLING	www.sterlingbankng.com
10.	UBA	www.ubagroup.com
11.	UBN	www.unionbankng.com
12.	UNITY BANK	www.unitybankng.com
13.	WEMA	www.wemabank.com
14.	ZENITH BANK	www.zenithbank.com

Check List of Items Appearing in the IFR Index: Score 1 (disclosure) and 0 (no disclosure) is given for each item of reporting)

S/N	CONTENTS
1	Income statement of current year
2	Balance sheet of current year
3	Cash flow statement of current year
4	Auditor report of current year
5	Annual report of current year (full text)
6	Notes to financial statements of current year
7	Income statement of past years
8	Accounting policy
9	Notes to financial statements of past years
10	Dividend information
11	Quarterly report of current year
12	Segmental reporting by line of business in current year
13	Corporate information
14	Half-year report of current year
15	Management report/analysis in current year
16	Members of the Board of Directors
17	Changes in stockholders' equity in the current year
18	Chairman's report
19	Analyses of main business risks
20	Summary of financial data over a period of at least five years
21	Sales of key products
22	CEO signature in the report
23	Annual general meetings information
24	Summary of key ratios over a period of at least five years
25	Users quickly find the financial information
26	Shareholder information
27	Corporate social responsibility report
28	Directors shareholding information
39	Information on corporate strategy
30	Company address
31	Company's charter in the current year
32	Financial ratios

S/N	PRESENTATIONS
1	Loading time of the website below 10 seconds
2	Internal search engine
3	Table of content/sitemap
4	Annual report in PDF format
5	Hyperlinks to financial analysts
6	Hyperlinks inside the annual report
7	Change to printing friendly format possible
8	Annual report in HTML format
9	Format of reports suitable for calculations
10	Menu pull-down
11	Ability to download reports
12	Use of multimedia technology (in general)
13	Financial data in processable format (such as Excel)
14	Direct e-mail contacts (feedback) available
15	Link to table of contents
16	Hyperlinks texts
17	Hyperlinks to data on a third-party's website
18	Clear boundaries for annual reports

RESULTS/OUTPUT

```
. xtset id year, yearly
      panel variable: id (strongly balanced)
      time variable: year, 2010 to 2014
      delta: 1 year
```

```
. su ifr fsize prof audtyp, detail
```

ifr				
	Percentiles	Smallest		
1%	.4	.4		
5%	.46	.46		
10%	.48	.46	Obs	70
25%	.54	.46	Sum of Wgt.	70
50%	.69		Mean	.6911429
		Largest	Std. Dev.	.1481729
75%	.82	.92		
90%	.88	.92	Variance	.0219552
95%	.92	.92	Skewness	-.1205159
99%	.92	.92	Kurtosis	1.836639
fsize				
	Percentiles	Smallest		
1%	19.11056	19.11056		
5%	19.37885	19.21438		
10%	19.74965	19.31964	Obs	70
25%	20.20045	19.37885	Sum of Wgt.	70
50%	20.73474		Mean	20.7429
		Largest	Std. Dev.	.7557894
75%	21.36844	21.89462		
90%	21.71717	22.04642	Variance	.5712177
95%	21.89462	22.07626	Skewness	-.160169
99%	22.19175	22.19175	Kurtosis	2.294214
prof				
	Percentiles	Smallest		
1%	-.2410481	-.2410481		
5%	-.0225624	-.1028236		
10%	-.0154489	-.0833422	Obs	70
25%	.0083498	-.0225624	Sum of Wgt.	70
50%	.0168252		Mean	.0120963
		Largest	Std. Dev.	.0396951
75%	.0262883	.0494024		
90%	.0394094	.0509268	Variance	.0015757
95%	.0494024	.0593863	Skewness	-4.245022
99%	.0650325	.0650325	Kurtosis	26.00009
audtyp				
	Percentiles	Smallest		
1%	0	0		
5%	0	0		
10%	0	0	Obs	70
25%	1	0	Sum of Wgt.	70
50%	1		Mean	.8142857
		Largest	Std. Dev.	.3916837
75%	1	1		
90%	1	1	Variance	.1534161
95%	1	1	Skewness	-1.61638
99%	1	1	Kurtosis	3.612686

. swilk ifr fsize prof audtyp

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
ifr	70	0.96968	1.866	1.357	0.08745
fsize	70	0.98125	1.154	0.311	0.37771
prof	70	0.58405	25.602	7.052	0.00000
audtyp	70	0.91910	4.980	3.491	0.00024

. pwcorr ifr fsize prof audtyp, star (0.05) sig

	ifr	fsize	prof	audtyp
ifr	1.0000			
fsize	0.6841* 0.0000	1.0000		
prof	0.3451* 0.0034	0.1381 0.2543	1.0000	
audtyp	0.3608* 0.0022	0.4233* 0.0003	0.0181 0.8820	1.0000

. reg ifr fsize prof audtyp

Source	SS	df	MS	Number of obs =	70
Model	.81820379	3	.272734597	F(3, 66) =	25.84
Residual	.696704796	66	.010556133	Prob > F =	0.0000
Total	1.51490859	69	.021955197	R-squared =	0.5401
				Adj R-squared =	0.5192
				Root MSE =	.10274

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ifr						
fsize	.1188212	.0182539	6.51	0.000	.0823762	.1552663
prof	.9690093	.3149291	3.08	0.003	.3402331	1.597786
audtyp	.0376636	.0348908	1.08	0.284	-.0319981	.1073253
_cons	-1.815945	.3671393	-4.95	0.000	-2.548962	-1.082927

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of ifr

chi2(1) = 1.81

Prob > chi2 = 0.1785

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of ifr

chi2(1) = 1.81

Prob > chi2 = 0.1785

. vif

Variable	VIF	1/VIF
fsize	1.24	0.803791
audtyp	1.22	0.819150
prof	1.02	0.978942
Mean VIF	1.16	

. xtreg ifr fsize prof audtyp, fe

Fixed-effects (within) regression
 Group variable: id
 Number of obs = 70
 Number of groups = 14
 R-sq: within = 0.6318
 between = 0.6089
 overall = 0.4961
 Obs per group: min = 5
 avg = 5.0
 max = 5
 F(3,53) = 30.32
 Prob > F = 0.0000
 corr(u_i, Xb) = -0.8551

ifr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
fsize	.2906138	.0335802	8.65	0.000	.2232604	.3579672
prof	.4141216	.2812372	1.47	0.147	-.1499688	.978212
audtyp	.0887663	.0403731	2.20	0.032	.0077881	.1697445
_cons	-5.414321	.691883	-7.83	0.000	-6.802063	-4.02658
sigma_u	.16243688					
sigma_e	.07550866					
rho	.82231105	(fraction of variance due to u_i)				

F test that all u_i=0: F(13, 53) = 5.32 Prob > F = 0.0000

. xtreg ifr fsize prof audtyp, re

Random-effects GLS regression
 Group variable: id
 Number of obs = 70
 Number of groups = 14
 R-sq: within = 0.5535
 between = 0.6820
 overall = 0.5324
 Obs per group: min = 5
 avg = 5.0
 max = 5
 Wald chi2(3) = 66.61
 Prob > chi2 = 0.0000
 corr(u_i, X) = 0 (assumed)

ifr	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
fsize	.1388244	.0214916	6.46	0.000	.0967016	.1809472
prof	.726636	.3142337	2.31	0.021	.1107493	1.342523
audtyp	.046268	.0379616	1.22	0.223	-.0281354	.1206714
_cons	-2.234943	.4350218	-5.14	0.000	-3.08757	-1.382316
sigma_u	.0333379					
sigma_e	.07550866					
rho	.16313219	(fraction of variance due to u_i)				

. est store random

. hausman fixed random

	— Coefficients —		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fixed	(B) random		
fsize	.2906138	.1388244	.1517894	.025802
prof	.4141216	.726636	-.3125143	.
audtyp	.0887663	.046268	.0424983	.0137442

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

$$\begin{aligned} \text{chi2}(3) &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 29.34 \\ \text{Prob>chi2} &= 0.0000 \\ & (V_b-V_B \text{ is not positive definite}) \end{aligned}$$

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

$$\text{ifr}[id,t] = Xb + u[id] + e[id,t]$$

Estimated results:

	Var	sd = sqrt(Var)
ifr	.0219552	.1481729
e	.0057016	.0755087
u	.0011114	.0333379

Test: Var(u) = 0

$$\begin{aligned} \underline{\text{chibar2}}(01) &= 1.60 \\ \text{Prob} > \text{chibar2} &= 0.1027 \end{aligned}$$