

DISCLOSURE OF KEY AUDIT MATTERS AND MARKET PERCEPTION OF AUDIT QUALITY OF BANKS IN NIGERIA

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ABSTRACT

The increasing incidence of audit failure has heightened the need for transparency in the exercise of professional judgment and communication of audit findings. This study investigated the effect of disclosure of key audit matters (KAMs) on the audit quality of Nigerian listed banks, as perceived by market participants, using data from 2013 to 2018. The sample consisted of 12 deposit money bank, drawn from a population of fifteen listed banks. The study, grounded on accountability theory and information theory, adopted pre- vs. post-KAM research design, formulated two null hypotheses and tested the hypotheses using multiple linear regression. Findings revealed that the Nigerian market participants did not perceive an increase in audit quality of Nigerian listed banks following the disclosure of KAMs. Also, the study did not record any significant relationship between the number of KAMs disclosed and audit quality, leading to the conclusion that KAMs did not affect the market perception of audit quality in Nigerian banks. The study attributes the results to learning curve, preponderance of unsophisticated and inexperienced investors, absence of successful ligations against auditors, insufficient information intermediaries and shallowness of the stock market. The implication of these findings is that market regulators should device schemes that will enhance the sophistication of market participants in Nigeria.

Keywords: Key audit matters, market perception, audit quality, accountability theory.

1. INTRODUCTION

The Companies and Allied Matters Act, 2020 makes it mandatory for every public company in Nigeria to prepare annual financial statements and appoint external auditor to examine them. After each audit, the external auditor issues a report conveying his/her independent professional opinion on whether or not the financial statements shows a true a true and fair view of financial position as at year end and profit or loss and other comprehensive income for the period in accordance with International Financial Reporting Standards (IFRS) and the requirements of the relevant Acts such as the Companies and Allied Matters Act, Banks and Other Financial Institutions Act, and the Financial Reporting Council of Nigeria Act. The audit report therefore serves to enhance the reliability of financial statements and increases user confidence in the audited financial statements. The auditor's report is a short and standardized report. The auditor has more and better information on the audit than the users of auditor's report and financial statement. Users of financial statements therefore want to know more about individual audits and to gain further insights into the audited entity and its financial statements. Mock et al. (2013) concluded that stakeholders need more information about the auditor, the audit and the financial statements. Audit related information includes auditor independence, audit process, materiality, level of assurance and entity related information, including accounting policies and risk-related information.

In response, the International Auditing and Assurance Standards Board (IAASB) launched consultation papers in May 2011 and June 2012 culminating in International Standards on Auditing No 701 (ISA 701) on 15 January 2015 but effective from 2016, An important feature of ISA 701 is the mandatory requirement for every external auditor to select and disclose key audit matters specific to the audit in his/her audit report from matters communicated to those charged with governance. One main objective of the disclosure of key audit matters is to increase the communicative value of the audit report and mitigate the information asymmetry that exists between auditor and users of audited financial statements and enhance investors' understanding of the auditor's role and responsibility.

Several studies have investigated the consequences of disclosing KAMs (for example, Asbahr & Ruhnke, 2019; Bédard et al. 2019; Boolaky & Quick, 2016; Brasel et al., 2016; Christensen et al., 2014; Gutierrez et al., 2018; Lennox et al., 2019; Sirois et al., 2018; Reid et al., 2019; Gimbar et al., 2016; Kachelmeier et al., 2019). However, most of the studies were experimental in nature (Boolaky & Quick, 2016). Experimental studies in social studies suffer quite a number of limitations such as being case specific, imperfect control over the subjects, behavioral distractions of the participations at the time of the experiment, and usual small sample size. The few archival studies were found in

UK, US, France, and China, and South Africa. Thus there is scarcity of studies on the consequences of disclosure of KAMs in Nigeria. Past archival and experimental studies such as Bédard et al. (2019), Reid et al. (2019), Gutierrez et al. (2018), and Wei et al. (2017) present mixed evidence on the consequences of KAMs on audit quality. The above observed gaps therefore provide motivation for this study. Therefore, the objective of this study is to investigate how market participants in Nigeria perceive audit quality following the disclosure of KAMs.

2. LITERATURE REVIEW

2.1 Concept of Key Audit Matters.

In France, since 2003, auditors were mandated to include in their report ‘Justification of Assessments’ (JOA), JOAs which are very similar to key audit matters are intended to “enable the user of the report to obtain a better understanding of the reasons behind the statutory auditors’ opinion on the financial statements” (Haut Conseil des Commissaires aux Comptes 2006). In June 2013, the Financial Reporting Council of UK passed new standards on the auditor’s report which required disclosure of certain information especially information of significant risks of material misstatement (RMM), similar to key audit matters, in the audit reports of companies with premium listings of equity shares on the main market of the London Stock Exchange (LSE) for audits of financial statements for the fiscal years ending in or after September 2013. On 15 January 2015, the International Auditing and Assurance Standards Board (IAASB) issued ISA 701. Similarly, the Public Company Accounting Oversight Board of US issued an equivalent standard requiring the communication of critical audit matters (an equivalent of KAMs) effective for large accelerated filers for fiscal years ending on or after June 30, 2019 and other firms, December 15, 2020.

ISA 701 defines key audit matters as ‘Those matters that, in the auditor’s professional judgment, were of most significance in the audit of the financial statements of the current period’ (IAASB, 2015). KAMs are usually complex, fraught with measurement uncertainties with high vulnerability to material misstatements and represent problematic elements of the financial statements or difficulties encountered in performing the audit. They, therefore, are matters ‘requiring significant auditor attention during the audit’ (IAASB, 2015). Key audit matters may be different from firm to firm and even from industry to industry. They may change from year to year depending on the auditor, the complexity of each individual audit, changing risk environments, and new accounting standards (Pinto & Morais, 2019, Sierra-García et al. 2019). Typical examples of KAM for listed banks in Nigeria include impairment on loans and advance to customers, valuation of derivative financial instruments,

valuation of liability on insurance contracts, recoverability of deferred assets, expected credit Loss on financial assets and off-balance sheet exposures.

2.2 Concept of Audit Quality

Audit quality is a complex construct with no universally accepted definition. It is unobservable ex ante ((Barton, 2005. Francis, 2004). Prior research and literature therefor define audit quality using multiple criteria. DeAngelo (1981 p.186), define audit quality “as the market-assessed joint probability that a given auditor will both (a) discover a breach in the client's accounting system, and (b) report the breach”. Palmrose (1988) defines audit quality as the probability that financial statements contain no material misstatements. To Schauer (2002, p.78), audit quality is the increase in the probability that the financial statements more accurately reflect the financial position and results of operations of the entity being audited. Francis (2004) argues that audit quality can be approximated by thinking of audits as either meeting or not meeting minimum legal and professional requirements. This seems to align with Government Accountability Office (2003) as cited in Bedard et al., (2010) which defines a high-quality audit as an audit “in accordance with generally accepted auditing standards to provide reasonable assurance that the audited financial statements and related disclosures are presented in accordance with generally accepted accounting principles and are not materially misstated whether due to errors or fraud”. In an archival review of auditing research, DeFond and Zhang (2014) categorized the measures of audit quality as output and input measures. Under the output measures are material misstatements (e.g. restatements and “Accounting and Auditing Enforcement Releases” issued by the U.S. Security and Exchange Commission), auditor communications (e.g. going concern opinions), financial reporting quality (e.g. discretionary accruals, meet/beat earnings benchmark, accrual quality and conservatism) and perception-based indicators (e.g. market reaction, cost of capital, change in market share and PCAOB inspections). Input measures comprise auditor characteristics, such as being a Big N or having an industry specialization, and the features of the contracts between auditors and clients (e.g. audit fees).

2.3 Theoretical Framework

One of the theories on which this study is grounded is accountability theory and its findings from the disclosure transparency literature. Gray et al. (1996, p.38) define accountability as “the duty to provide an account (by no means necessarily a financial account) or reckoning of those actions for which one is held responsible”. It involves two responsibilities or duties: (1) the responsibility to undertake certain actions (or to refrain from taking actions); and the responsibility to provide account of those actions. Accountability implies that the person with responsibility must be called upon

to justify his/action(s). The auditor has the responsibility of examining the assertions of management contained in the financial statements and to express his/her opinion thereon. His/her opinion is communicated to stakeholders via audit report. It is the exclusive responsibility of the auditor to select KAMs and disclose same in a separate paragraph of his/her report. In line with accountability theory, the auditor may be called upon to justify the selection and disclosure of KAMs. The disclosure of KAMs in audit report attracts high level of scrutiny by readers of audit report (Sirois et al., 2018) since KAMs suggest heightened probability of material misstatement. Consistent with findings from other contexts, the auditor therefore is likely to feel more pressured to be more vigilant and diligent in his/her judgment and decision-making concerning the selection and disclosure of KAMs (Ashton, 1992; Ford & Weldon, 1981; Kim & Trotman, 2015; Libby et al., 2004; Tetlock, 1985).

Another theory that is relevant to the study is Shannon's information theory and its applications. Investors' reaction to accounting information may be explained by this theory as it indicates that differences in information processing by recipients of different backgrounds affect their reaction to a set of information. Thus, the differences in investors' professional background may affect their response to accounting information (Chen, 2005). In the context of the current study, Köhler et al. (2020) found that the value of KAM disclosures to informed investors depended on how they assessed the economic reality of the firm, while in the case of unsophisticated investors, KAM disclosures had no communication value because of the inability of these investors to effectively process the KAM information.

2.4 Empirical Review

Gold et al. (2020) investigated the impact of KAMs disclosures on the aggressiveness of managerial financial reporting behavior. The investigation was a 3x1 between-subjects experiment using 104 experienced executives who assumed the role of the chief finance officers at a fictitious publicly traded company in order to evaluate financial estimates on goodwill impairment – the key audit matter. The authors manipulated KAM disclosures at three levels in audit reports: KAM absent, KAM with firm-specific content, and KAM with non-firm-specific content. Findings showed that managers chose a higher goodwill amount in the presence of a goodwill-related KAM (compared to the absence of this KAM) indicating that the presence of KAMs in the audit report led to less-aggressive financial reporting behavior and, hence, to an improvement of financial reporting quality. Furthermore, findings revealed no significant difference in the chosen impairment charge between managers who received a KAM with firm specific content and managers who received a KAM with non-firm specific content.

Boolaky and Quick (2016) conducted an experiment involving a sample of 105 German bank directors in order to analyze the effect of disclosing the applied assurance level, applied materiality level and KAM in the audit reports on bank director perceptions of the quality of the financial statements, the audit and the audit report, as well as on their credit approval decisions. The results from the experiment suggested that the disclosure of the applied assurance level has a significant, positive effect on perceived accounting, auditing and audit reporting quality and increased the probability of granting credit. The result however revealed that the disclosure of KAMs does not affect the perceptions and decisions of bank directors.

Following the issuance of Chinese auditing standards which mandated the disclosure of critical audit matters (CAMs) in audit reports for all listed companies since 2017, Wu et al. (2019) studied the association between the disclosure of asset impairment-related CAMs and the quality of audited financial information of 3,231 firm observations of Chinese A-share listed firms through 30 April 2018. The results showed that the relation between asset impairment and worsened economics was notably stronger for companies with an impairment-related CAM than those without any. The conclusion therefore is that asset impairment-related CAMs signal higher audit quality.

In 2003, the French auditing standards required the auditors of listed companies that traded in France's stock market to disclose justifications of assessments (JOAs). JOAs involve matters that are important for helping users understand financial statements. Bédard et al. (2019) studied the effect of disclosure of JOAs. The results indicated that financial markets did not react significantly to disclosure of JOAs, and audit quality, audit cost and audit efficiency were not significantly affected by the disclosures. The implication is that JOAs disclosure did not improve audit quality in the first year of the requirement.

Using business school alumni of a large, public US university who are nonprofessional investors, Christensen et al. (2014) performed an experiment to investigate how these subjects react to an audit report's critical audit matter. The study identified fair value estimates as the critical audit matter. Findings showed that investors were indeed more likely to stop considering the firm with the CAM disclosure as an investment. This finding suggests CAM disclosure is value relevant.

Backof et al. (2014) tested how the inclusion of a mandatory paragraph that identifies and describes a critical audit matter affects juror assessments of auditor liability. The sample of research participants comprised undergraduate students enrolled in an introductory accountancy course at a large south-eastern US public university who were asked to assume the role of a juror in a professional negligence case.

Management's lower of cost or market valuation of ending inventory was identified as a critical audit matter. The authors found that simply identifying a critical audit matter in the audit report did not significantly affect the likelihood of auditors being perceived as negligent. However, when the audit report included a description of the specific audit procedures performed, so as to address the identified critical audit matter, jurors were more likely to find the auditors negligent.

In an experiment conducted at a large Canadian university and employing eye-tracking technology, Sirois et al. (2018) demonstrated that KAM mentioned in the audit report was associated with lower perceived audit quality. It further documented greater investor attention to financial statement disclosures related to KAMs. This might be because KAM often highlights problematic elements of the financial statements or difficulties in performing the audit.

Rapley et al. (2021) explored the relative effects of a CAM disclosure versus a disclosure that the auditor did not identify a CAM as well as auditor tenure on nonprofessional investors' perceptions and judgments. They conducted a 2x3 between-subjects experiment using 292 participants who served as valid surrogates for nonprofessional investors. Following, Farrell *et al.* (2017), Koonce et al., (2015), and Rennekamp (2012), the study recruited the participants from Amazon's MTurk. The experiment involved manipulation of CAM disclosure (CAM identified; no CAM identified) and auditor tenure disclosure (none; short; long). Findings indicated that CAM disclosure increased perceived audit quality.

The Financial Reporting Council of UK passed new standards which required auditors to disclose the risks of material misstatements (RMMs) in 2013. Reid *et al.* (2019) carried out an archival study of the impact of RMMs disclosure on audit quality employing data covering the period from 2011 to 2014 of match-pair samples between UK companies and US/European companies. Using two proxies of audit quality: modified Jones's performance-adjusted absolute abnormal accruals and the incidence of meet/beat analyst forecasts, the study found that RMMs disclosure improved audit quality by reducing the discretionary accruals and the incidence of meet/ beat analyst forecasts. The implementation of the requirement to disclose KAMs began in Australia in 2016. Wei et al. (2017) investigated the impact of KAMs disclosure on audit quality in Australia based on samples spanning the period 2014 to 2017. With discretionary accruals as computed by a performance-matched modified Jones model as proxies for audit quality, the study failed to find evidence that KAMs disclosure did improved audit quality.

2.6 Hypotheses Development

It is argued that the requirement to disclose KAMs would increase an auditor's accountability, commitment to transparency and responsibility to present an accurate assessment (Bédard et al., 2019; Li et al., 2019) and responsibility (Li et al., 2019). This study argues that auditors would be putting more effort into their audits and performing them thoroughly following the implementation of KAMs, aware of the fact that KAM disclosure would afford users of audit reports the opportunity to critically assess auditors' judgment and opinion. The requirement to communicate KAMs to those charged with governance suggests more interaction with those charged with governance. This is likely to motivate the auditor to exercise higher level of professional skepticism in evaluating management estimates. Since disclosed KAMs indicates the presence of risky area, heightened likelihood of material misstatements (Vinson et al. 2019; Kachelmeier et al. 2019) and have attention-directing impact (Sirois et al., 2018), managers are likely to present a more accurate estimates, supported by transparent methodologies used in making the estimates so as to reduce the number of KAMs. Gold et al. (2020) provide experimental evidence that KAMs caused managers to reduce the tendency of making an aggressive financial reporting decision. They attributed the result to higher accountability pressure on managers through transparency arising from KAM disclosure. Gimbar et al. (2016) and Backof et al. (2014) suggest that KAM disclosures create the perception that auditors have a role to foresee a likely audit failure. Brasel et al. (2016) provide evidence of negative relationship between KAM disclosures and auditor liability. In line with Bédard et al. (2019).this suggests that auditors would exert more effort in selecting KAMs and the procedures for addressing them in the KAM period in order to minimize legal liability arising from material misstatement. The overall implication is that the audit quality in the KAM period would likely be higher than in the pre-KAM period, all else held constant. The foregoing discussions lead to the following null hypothesis:

H₀₁ Market participants do not perceive an increase in audit quality of Nigerian listed banks following the disclosure of Key Audit Matters.

Disclosed KAMs are warning sign of areas of possible material misstatements (Brasel et al., 2016; Kachelmeier et al., 2019). Sirois et al. (2018) indicate that numerous KAMs impair the informative value of an audit report. However, the disclosure of how the disclosed KAMs are addressed could serve to reassure the users of audited financial statements that the auditor has delivered on his/her remit. The above discussions lead to the second null hypothesis of this study thus:

H₀₂: The number of Key Audit Matters disclosed is not related to the market perception of audit quality of Nigerian listed banks.

3. METHODOLOGY

3.1 Research design

The study employed a pre- vs. post-KAM research design to investigate whether market participants perceive an improvement in audit quality following KAM disclosures. The study covered three years in the pre-KAM disclosure period (2013 to 2015) and three years in the post-KAM disclosure period (2016 to 2018).

3.2 Population and sample

The population of this study is all deposit money banks listed on the Nigerian Stock Exchange between 2013 and 2018. The Fact Book of the Nigeria Stock Exchange (2019) shows that a total of 15 deposit money banks were listed on the Exchange during the sample period. To obtain the sample, the study adopted the census sampling technique. The choice was motivated by the fact that the population was small. In applying the census sampling technique, the study required the deposit money bank to have complete data for the period 2013 to 2018 and the reporting currency must be Naira. Deposit money banks that failed to satisfy the criteria were excluded. Three deposit money banks were consequently excluded for not meeting the criteria. The sample of the study was therefore 12 deposit money banks yielding 72 firm-year observations for the full sample and 36 firm-year observations for the post-KAM disclosure period. The sample selection procedure is shown in Table 1.

Table 1 Sample Selection Procedure

	Full Sample (Model 1)	Sub-Sample (Model2)
No of deposit money banks	15	15
Less deposit money banks without complete data	2	2
Less deposit money banks with reporting currency other than Naira	1	1
	12	12
Firm-year observations(2013-2015)	72	
Firm-year observations(2016-2018)		36

Source: Researchers' computation, 2021

3.3 Empirical Model

The study employs the following regression models to test the two null hypotheses:

$$CAR_{it} = \beta_0 + \beta_1 E_{it} + \beta_2 \Delta E_{it} + \beta_3 KAM_{it} + \beta_4 E * KAM_{it} + \beta_5 \Delta E * KAM_{it} + \beta_6 LEV_{it} + \beta_7 E * LEV_{it} + \beta_8 \Delta E * LEV_{it} + \beta_9 AGE_{it} + \beta_{10} E * AGE_{it} + \beta_{11} \Delta E * AGE_{it} + \beta_{12} SZE_{it} + \beta_{13} E * SZE_{it} + \beta_{14} \Delta E * SZE_{it} + \beta_{15} GRW_{it} + \beta_{16} E * GRW_{it} + \beta_{17} \Delta E * GRW_{it} + \beta_{18} BETA_{it} +$$

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$$\beta_{19}E*BETA_{it} + \beta_{20}\Delta E*BETA_{it} + \beta_{21}PERST_{it} + \beta_{22}E*PERST_{it} + \beta_{23}\Delta E*PERST_{it} + \beta_{24}VOLAT_{it} + \beta_{25}E*VOLAT_{it} + \beta_{26}\Delta E*VOLAT_{it} + \epsilon_{it} \dots\dots\dots[1]$$

$$CAR_{it} = \Psi_0 + \Psi_1E_{it} + \Psi_2\Delta E_{it} + \Psi_3KAMD_{it} + \Psi_4E*KAMD_{it} + \Psi_5\Delta E*KAMD_{it} + \Psi_6LEV_{it} + \Psi_7E*LEV_{it} + \Psi_8\Delta E*LEV_{it} + \Psi_9AGE_{it} + \Psi_{10}E*AGE_{it} + \Psi_{11}\Delta E*AGE_{it} + \Psi_{12}SZE_{it} + \Psi_{13}E*SZE_{it} + \Psi_{14}\Delta E*SZE_{it} + \Psi_{15}GRW_{it} + \Psi_{16}E*GRW_{it} + \Psi_{17}\Delta E*GRW_{it} + \Psi_{18}BETA_{it} + \Psi_{19}E*BETA_{it} + \Psi_{20}\Delta E*BETA_{it} + \Psi_{21}PERST_{it} + \Psi_{22}E*PERST_{it} + \Psi_{23}\Delta E*PERST_{it} + \Psi_{24}VOLAT_{it} + \Psi_{25}E*VOLAT_{it} + \Psi_{26}\Delta E*VOLAT_{it} + \epsilon_{it} \dots\dots\dots[2]$$

The variables in the models for bank i in year t are defined and measured as follows:

- CAR = Cumulative abnormal return = calculated as cumulative market-adjusted returns for 12-month period ending three months after year end. Market-adjusted returns are the difference between raw returns and value-weighted Nigerian Stock Exchange (NSE) returns.
- E = Earnings per share = Income before extraordinary deflated by market value of equity at the beginning of the year.
- ΔE = Change E. It is difference in E for the current year and that of last year, deflated by market value of equity at the beginning of the year.
- KAM = An indicator variable that equals 1 for the KAM disclosure years (2016-2018) and 0 for the pre- KAM years (2013-2015).
- KAMD = Number of KAMs disclosed, transformed and coded 1 for number above the sample median and 0 otherwise.
- LEV = Leverage = Total liabilities divided by total assets
- AGE = Bank age, computed as the number of years the bank has been listed on the NSE, transformed as natural logarithm.
- SZE = Bank size = Natural logarithm total assets.
- GRW = Growth opportunities = Sum of market value of equity and book value of debts scaled by book value of total assets.
- BETA = Systematic risk computed using past 60 monthly stock returns.
- PERST = Earnings persistence estimated by annual earnings for the previous 5 years
- VOLAT = Volatility computed as standard deviation of earnings per share for the previous 5 years.
- ϵ = Error term
- β_0, Ψ_0 = Constant or Intercept.
- $\beta_1 - \beta_{26}$ = Regression coefficients
- $\Psi_1 - \Psi_{26}$ = Regression coefficients

Following Ghosh and Moon (2005), the study employed earnings response coefficient as the proxy for market perception of audit quality. In the above regressions, the earnings response coefficient (ERC), i.e., the sum of the coefficients of earnings and earnings level changes ($\beta_1 + \beta_2$) in Model 1 and ($\Psi_1 + \Psi_2$) in model 2 are the proxy for markets' perceptions of audit quality. However, the primary variable of interest is the sum of coefficient on E^*KAM_{it} and ΔE^*KAM_{it} ($\beta_4 + \beta_5$) in Model 1 and E^*KAMD_{it} and ΔE^*KAMD_{it} ($\Psi_4 + \Psi_5$) in Model 2. If market participants perceive an improvement in audit quality following the disclosure of KAMs, ($\beta_4 + \beta_5$) will be positive and significantly different from zero. Conversely, if market participants perceive a decline or no improvement in audit quality following the disclosure of KAMs, ($\beta_4 + \beta_5$) will be negative. If market participants perceive that the number of KAMs disclosed improve in audit quality, ($\Psi_4 + \Psi_5$) will be positive and significantly different from zero. Conversely, if market participants perceive that the number of KAMs disclosed has detrimental effect or no effect on audit quality ($\Psi_4 + \Psi_5$) will be negative.

4. RESULTS AND DISCUSSION

4.1 Univariate Analysis

Table 1 presents the descriptive analysis of the variables used in the study. Table 1 shows that the study has 72 firm-year observations. It shows that the CAR of the deposit money banks has an average value of 36.032 with standard deviation of 119.63, and minimum value of -116.136, and a maximum value 646.719. This minimum value implies that some deposit money banks underperformed the market. The descriptive statistics reveal the number of KAM falls between 1 and 5, with the mean standing at 2.361. Table 1 indicates 165 kobo as the average EPS of the deposit money banks. The range of EPS is from -127kobo and 704kobo. The standard deviation of 179.57kobo which is higher than the mean suggests the EPS is not clustered around the mean, an indication of wide dispersion amongst the deposit money banks. Except SZE and PERST, all the other variables are positively skewed. The positive values of the Kurtosis suggest the data set has peak values near the mean.

Table 1: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	Median	Skewness	Kurtosis
Car	72	36.032	119.631	-116.136	646.719	8.712	3.262	15.158
No of kam	36	2.361	0.899	1	5	2	0.902	3.844
E	72	165.053	179.566	-127.62	704	102	1.177	3.937
Lev	72	0.986	0.897	0.0008	7.830	0.867	6.452	48.852
Age	72	232.973	1901.662	7.983	16145	8.840	8.307	70.014
Sze	72	21.083	0.933	18.646	22.508	21.015	-0.460	2.663
Grw	72	1.107	0.973	0.036	8.574	0.949	6.543	49.882
Beta	72	1.277	0.712	0.620	4.676	1.034	3.053	13.889
Perst	72	0.641	0.589	-1.210	2.362	0.741	-0.832	5.508
Volat	72	93.135	169.424	1.016	1163.24	58.281	4.788	27.312

Source: Researchers' computation, 2021.

4.2 Bivariate Analysis

The study conducted correlation analysis and presents the correlation coefficients of the variables of the study in Table 2. Table 2 reveals both positive and negative correlations. The correlation between CAR and e^*kam is negative -0.129. The correlation between CAR and Δe^*kam is also negative -0.233. Table 2 equally reveals a negative correlation between CAR and e^*kamd (-0.167), as well as CAR and Δe^*kamd (-0.147). The values of the correlation coefficients are generally small indicative of absence of serious threat of multicollinearity.

4.3 Multivariate Analysis

The study carried out multivariate analysis by testing the null hypotheses and analyzing the results using STATA 12. It estimated the empirical models and the results are in Table 3. The model summary in Table 3 shows that the estimation of Model 1 was based on 72 observations while Model 2 was based on 36 firm-year observations. The Model summary reveals the value of coefficient of determination (R^2) as 0.664 for Model 1 and 0.903 for Model 2. This means that 66.4% and 90.3% of the cross-sectional variations in CAR were jointly explained by the independent variables and the control variables in Model 1 and Model 2 respectively. The F

statistics in Table 3 reveals that the models have excellent fit (p-value = 0.0000) for Model 1 and (p-value = 0.0000) for Model 2.

4.3.1 KAM disclosure and market perception of audit quality

Ho₁ tested the relationship between KAM disclosure and market perception of audit quality. The result is presented in Model 1 of Table 3. CAR is the proxy for market perception of audit quality. Model 1 in Table 3 reports that the sum of the coefficients on earnings levels and earnings changes ($\beta_1 + \beta_2$) is positive and insignificant ($\beta_1 + \beta_2$, = 2.5140; p-value = 0.904). The variable of interest of this study is the sign on and magnitude of the sum of coefficient on E*KAM + Δ E*KAM ($\beta_4 + \beta_5$). Model 1 in Table 3, shows that the sum of coefficient on E*KAM + Δ E*KAM is negative and insignificant ($\beta_4 + \beta_5$ = -1.3329; p-value = 0.764). The result suggests that market participants perceive that audit quality has decreased by about 46.98% (1.3329/2.5140) during the KAM disclosure period relative to the pre-KAM disclosure period. Consequently, the null hypothesis that predicts no positive and significant effect of KAM disclosure on audit quality is accepted. The finding is in agreement with Gutierrez et al. (2018) and Wei et al. (2017) who found evidence that expanded audit reports incorporating KAMs did not improve audit quality. However, it is at variance with Reid et al. (2019) who employed UK samples and Wu et al. (2019) who utilized Chinese samples. It is also contrary to the experimental evidence of Rapley et al. (2021). The result could be because the market participants already perceived that the auditors who are mostly Big N firms provide high quality audit. Prior studies provide evidence showing that stakeholders perceive Big 4 firms as providing a better-quality audit than Non-Big 4 firms (for example, Eshleman & Guo; 2014; Teoh & Wong, 1993).

Table 2: Correlation Matrix

	car	kam	E	Ac	c*kam	Ac*kam	Lev	c*lev	Ac*lev	age	c*age	Ac*image	szc	c*szc
car	1.000													
kam	0.162	1.000												
c	-0.266*	0.155	1.000											
Ac	-0.115	0.247*	0.599*	1.000										
c*kam	-0.129	0.528*	0.821*	0.586*	1.000									
Ac*kam	-0.233*	0.350*	0.664*	0.757*	0.780*	1.000								
lev	0.057	0.195	0.128	-0.069	-0.054	-0.097	1.000							
c*lev	-0.324*	0.165	0.853*	0.531*	0.718*	0.606*	0.261*	1.000						
Ac*lev	-0.326*	0.156	0.514*	0.827*	0.502*	0.768*	0.086	0.575*	1.000					
age	-0.055	-0.119	-0.081	-0.337*	-0.063	-0.042	-0.017	-0.068	-0.275*	1.000				
c*age	-0.060	-0.116	-0.062	-0.346*	-0.047	-0.029	-0.019	-0.052	-0.267*	0.100*	1.000			
Ac*age	0.055	0.119	0.082	0.358*	0.064	0.043	0.017	0.069	0.277*	-1.000*	-0.100*	1.000		
szc	-0.307*	0.110	0.615*	0.184	0.461*	0.313*	-0.410*	0.466*	0.224	0.137	0.149	-0.136	1.000	
c*szc	-0.262*	0.164	0.999*	0.590*	0.826*	0.658*	-0.130	0.848*	0.502*	-0.080	-0.061	0.081	0.625*	1.000
Ac*szc	-0.106	0.259*	0.609*	0.999*	0.599*	0.760*	-0.066	0.535*	0.813*	-0.373*	-0.362*	0.375*	0.189	0.600*
grw	0.029	0.170	-0.055	-0.025	-0.015	-0.056	0.993*	0.334*	-0.040	-0.025	-0.026	0.025	-0.393*	-0.059
c*grw	-0.305*	0.154	0.880*	0.547*	0.730*	0.621*	0.226	0.988*	0.559*	-0.070	-0.054	0.071	0.431*	0.873*
Ac*grw	-0.303*	0.172	0.564*	0.881*	0.552*	0.807*	-0.079	0.600*	0.991*	-0.263*	-0.253*	0.264*	0.213	0.550*
beta	0.689*	-0.149	-0.388*	-0.247*	-0.302*	-0.321*	0.013	-0.393*	-0.356*	-0.053	-0.060	0.052	-0.350*	-0.385*
c*beta	-0.272*	0.040	0.920*	0.566*	0.690*	0.569*	-0.198	0.815*	0.5815*	-0.089	-0.071	0.090	0.686*	0.918*
Ac*beta	-0.230	0.1150	0.480*	0.878*	0.419*	0.618*	-0.168	0.496*	0.915*	-0.270*	-0.261*	0.271*	0.258*	0.467*
perst	-0.247*	-0.021	0.230	0.130	0.101	0.112	-0.363*	0.164	0.210	0.028	0.033	-0.028	0.384*	0.229
c*perst	-0.212	0.107	0.908*	0.438*	0.704*	0.464*	-0.150	0.705*	0.302*	-0.080	-0.063	0.081	0.614*	0.917*
Ac*perst	0.129	0.265*	0.463*	0.727*	0.479*	0.456*	0.035	0.314*	0.312*	-0.411*	-0.402*	0.062	0.062	0.466*
volat	-0.148	0.194	-0.040	0.077	-0.016	0.092	0.463*	0.074	0.213	0.004	0.003	-0.004	-0.221	-0.040
c*volat	-0.180	0.128	0.788*	0.414*	0.643*	0.431*	0.079	0.797*	0.305*	-0.054	-0.034	0.054	0.413*	0.7821*
Ac*volat	-0.076	0.216	0.239*	0.640*	0.254*	0.450*	0.152	0.173	0.583*	-0.235*	-0.231	0.236*	-0.124	0.237*
kand	-0.214		0.161	0.183	0.161	0.183	0.163	0.281	0.182	0.313	0.171	0.182	0.191	0.148
c*kand	-0.167	-	0.472*	0.542*	-	-	-0.034	0.424*	0.371*	-0.033	0.468*	0.536*	0.160	0.454*
Ac*kand	-0.147	-	0.452*	0.708*	-	-	-0.039	0.2147	0.461*	-0.1552	0.439*	0.704*	0.049	0.432*

Table 2 Correlation matrix continued

	Δe^*_{size}	Grw	e^*_{grw}	Δe^*_{grw}	Beta	e^*_{beta}	Δe^*_{beta}	perst	e^*_{perst}	Δe^*_{perst}	volat	e^*_{volat}	Δe^*_{volat}	kamd	e^*_{kamd}	Δe^*_{kamd}
Δe^*_{size}	1.000															
grw	-0.022	1.000														
e^*_{grw}	0.550*	0.310*	1.000													
Δe^*_{grw}	0.865*	-0.028	0.596*	1.000												
beta	-0.241*	-0.023	-0.38*	-0.353*	1.000											
e^*_{beta}	0.567*	-0.129	0.818*	0.600*	-0.299*	1.000										
Δe^*_{beta}	0.863*	-0.124	0.480*	0.918*	-0.274*	0.598*	1.000									
perst	0.124	-0.351*	0.150	0.1901	-0.350*	0.311*	0.274*	1.000								
e^*_{perst}	0.454*	-0.351*	0.1497	0.1901	-0.322*	0.820*	0.300*	0.310*	1.000							
Δe^*_{perst}	0.750*	0.059	0.345*	0.388*	-0.020	0.324*	0.422*	-0.071	0.476*	1.000						
volat	0.067	0.4679*	0.078	0.198	-0.191	-0.057	0.068	-0.42*	-0.102	1.000						
e^*_{volat}	0.424*	0.161	0.815*	0.359*	-0.294*	0.714*	0.326*	0.044	0.637*	-0.039	1.000					
Δe^*_{volat}	0.633*	0.166	0.202	0.612*	-0.167	0.207	0.514*	-0.067	0.214	0.402*	0.557*	-0.07	1.000			
kamd	0.175	0.184	0.266	0.203	-0.195	0.141	0.160	-0.176	-0.015	0.013	0.159	0.268	-0.04	1.000		
e^*_{kamd}	0.538*	0.005	0.459*	0.444*	-0.222	0.339*	0.300	-0.034	0.244	0.278	-0.029	0.327	0.181	0.715*	1.000	
Δe^*_{kamd}	0.709*	-0.019	0.432*	0.546*	-0.172*	0.292	0.382*	-0.028	0.197	0.458*	-0.070	0.310	0.312	0.466*	0.849*	1.000

Source: Researchers' computation, 2021. * significant

Table 3: Regression Result

Car	Model 1				Model 2			
	Coef.	Robust Std. Err.	T	p-value	Coef.	Robust Std. Err.	t	p-value
e, β_1 Ψ_1	-1.2894	3.1269	-0.41	0.682	12.1159	30.30317	0.40	0.699
Δe , β_2 , Ψ_2	3.8034	7.1519	0.53	0.597	4.2212	51.8005	0.08	0.937
$\beta_2 + \beta_3$, $\Psi_2 + \Psi_3$	2.5140	10.2788	0.12	0.904	16.3372	82.1036	0.48	0.667
Kam, β_3	91.5605	64.6082	1.42	0.163				
e*kam, β_4	0.1325	0.2909	0.46	0.651				
Δe *kam, β_5	-1.4654	0.9266	-1.58	0.121				
$\beta_4 + \beta_5$	-1.3329	65.8257	0.3	0.764				
kamd Ψ_3					-155.081	71.7186	-2.16	0.059
e*kamd, Ψ_4					0.7011	0.6449	1.09	0.305
Δe *kamd, Ψ_5					-0.3650	1.5818	-0.23	0.823
$\Psi_4 + \Psi_5$,					0.3361	2.2267	0.86	0.390
lev, $\beta_7 + \beta_8$, $\Psi_7 + \Psi_8$	3.4678	4.2917	1.09	0.276	-3.6866	17.0467	-0.48	0.631
age, $\beta_{10} + \beta_{11}$, $\Psi_{10} + \Psi_{11}$	-0.0766	0.3403	-0.49	0.624	-0.7945	2.6254	-1.58	0.114
sze, $\beta_{13} + \beta_{14}$, $\Psi_{13} + \Psi_{14}$	0.0283	0.4797	0.46	0.646	-0.5981	3.4580	-0.28	0.779
grw, $\beta_{16} + \beta_{17}$, $\Psi_{16} + \Psi_{17}$	-2.9843	3.8290	-1.47	0.142	0.5754	18.2685	0.01	0.992
beta, $\beta_{19} + \beta_{20}$, $\Psi_{19} + \Psi_{20}$	-1.3321	1.7424	-1.07	0.285	3.6800	4.6824	2	0.046
perst, $\beta_{22} + \beta_{23}$, $\Psi_{22} + \Psi_{23}$	-0.1864	1.0675	-0.9	0.368	2.1720	6.9249	-0.2	0.046
volat, $\beta_{25} + \beta_{26}$, $\Psi_{25} + \Psi_{26}$	-0.0021	0.0046	-0.9	1.313	0.0011	0.0401	0.05	1.959
cons	-226.13	657.5935	-0.34	0.733	-3080.63	2449.555	-1.26	0.240
Model Summary					Model Summary			
No of obs				72				36
F(25, 45)				3.42				
F(26, 9)				0.000				1807.87
Prob > F								0.000
R ²				0.664				0.903

Source: Researchers' Computation, 2021

It could also be that majority of participants in the Nigerian market who are not experienced and sophisticated are unable to assess and understand the message conveyed by KAMs. Backof (2015) found that KAMs have no communicative value for nonprofessional investors, but for professional investors. Annette et al. (2020) demonstrated experimentally that non-professional investors have difficulty handling the information disclosed by key audit matters. With near absence of successful litigation against auditors in Nigeria, auditors seem not to be concerned about audit quality and this could influence market perception of audit quality in Nigeria following KAM disclosures. Paek and Yoo (2005) reported a positive association between risk of litigation and audit quality.

4.3.2 Number of KAM and market perception of audit quality

The study formulated H_{02} to test the relationship between number of KAM disclosed and market perception of audit quality. The result of test of H_{02} is displayed in Model 2 of Table 3. Similar to Model 1, CAR is the proxy for market perception of audit quality in Model 2. Model 2 in Table 3 reveals that the sum of the coefficients on earnings levels and earnings changes is positive and insignificant ($\Psi_1 + \Psi_2$, 16.3372; p-value = 0.667). As in Model 1, the coefficient on the variable of interest in Model 2 is the sign on and magnitude of the sum of coefficient on E^*KAMD and ΔE^*KAMD . The result indicates a positive and insignificant relationship ($\Psi_4 + \Psi_{25} = 0.3361$; p-value = 0.390). This implies that as the number of KAMs increases by 1, market participants perceive a 13.82% $(\frac{0.3361}{0.390} - 1) \times 100$ decrease in audit quality. This is contrary to the a priori expectation of a positive and significant association. The study therefore accepts the null hypothesis which states that there is no significant relationship between the number of KAM disclosed and audit quality. The result is in agreement with Kitiwong and Sarapaivanich (2020) who, using 1,519 firm-year observations obtained from 312 companies in Thailand, found that the number of disclosed KAMs and the most common types of disclosed KAMs were not associated with audit quality. Numerous KAMs could lead to information overload and market participants especially the unsophisticated investors might find it difficult to extract relevant information for their financial analyses. Indeed Siros et al. (2018) found that numerous KAMs impaired the informative value of an audit report.

4.3.3 Control Variables

The study included eight control variables established in prior literature as determinants of earnings response coefficient. Following Ghosh and Moon (2005), the study reports the sum of individual coefficients on the interactions between each control variable and earnings levels (E) and earnings changes. After controlling for other determinants of the ERC, Table 3 indicates that the two interaction coefficients

in respect of control variables have a mixture of positive and negative values and are insignificant except Beta in Model 2. In Model 2, the sum of the coefficients on the interactions between Beta and earnings levels and earnings changes is positive and significant at the 5% level ($\Psi_{19} + \Psi_{20} = 3.6800$; p-value = 0.046). This suggests that ERC decreases with Beta, controlling for other determinants of ERC. This finding is in agreement with Ghosh & Moon (2005).

4.3.4 Regression Diagnostics

The study tested for autocorrelation, heteroskedasticity, normality and multicollinearity. The result of Breusch-Godfrey LM test for autocorrelation as shown in Table 4 indicates that while Model 1 is free from serial correlation, Model 2 suffers from serial correlation (p-value of chi-squared statistics = 0.0000). The study therefore used standard robust errors to address the problem. Table 5 reports the results of Joint Test of Heteroskedasticity, Symmetry and Normal Kurtosis. The p-values of all the variables are insignificant except Kurtosis in Model 1. The insignificant values of the chi-squared statistics suggest that the assumptions of homoscedasticity and normality are not violated. In view of the significance of the Chi-squared statistics on kurtosis in Model 1, the study used robust standard errors in reporting the regression results.

Table 4: Breusch-Godfrey LM test for autocorrelation

Model 1				Model 2			
lags(p)	chi2	Df	p-value	lags(p)	chi2	df	p-value
1	2.465	1	0.1164	1	20.367	1	0.0000

Source: Researchers' Computation, 2021

**Table 5 Result of Joint Test of Heteroskedasticity, symmetry and normal Kurtosis
Cameron & Trivedi's decomposition of IM-test**

Source	Model 1			Model 2		
	chi2	Df	p-value	chi2	df	p-value
Heteroskedasticity	72.00	71	0.4445	36.00	35	0.4215
Skewness	13.65	26	0.9773	17.85	26	0.8811
Kurtosis	3.97	1	0.0462	0.18	1	0.6756
Total	89.63	98	0.7150	54.03	62	0.7545

Source: Researchers' Computation, 2021

5. CONCLUSION

Several countries have commenced the disclosure of KAMs. According to IAASB (2015), the disclosure of KAM in auditor report is expected to mitigate information asymmetry between the users of audit report and the auditor, to enhance the informativeness of audit report and ultimately increase audit quality. Prior academic

research on the effect of the KAM disclosure on audit quality and financial reporting quality has produced mixed evidence. There is a scarcity of such empirical research that used data from Nigeria. The objective of this study therefore is to ascertain the effect of disclosure of KAMs on audit quality of Nigerian listed banks as perceived by market participants using data from 2013 to 2018. The study did not document an increase in audit quality of Nigerian listed banks following the disclosure of KAMs. It also did not find a positive and significant relationship between the number of KAMs disclosed and audit quality. Overall results consistently indicate that the market participants do not perceive the disclosure of KAM as enhancing audit quality of Nigerian listed banks. The findings of the study are explained by both accountability theory and information theory. In compliance with existing regulations the auditors disclosed KAMs in the post-KAMS period, thereby discharging their responsibility. In so doing, the auditors made themselves accountable. The investors, however, did not respond to KAM disclosures given their low level of sophistication, which inhibited their ability to process the information conveyed by KAM disclosures. Information theory explains this finding as the communication value attached by an information recipient depends of the ability to process the information. The findings of this study have implications for market regulators who should play deliberate roles in enhancing the ability of investors to impound essential corporate information on Nigerian firms.

As with many other studies, the current study has its limitations. First, generalizability of the findings of the study is limited because the unique reporting features of banks. Thus, some findings of this study may not be applicable to firms in other industries. Second, the study used data from Nigerian listed deposit money banks only. In Nigeria, there are a number of listed types of banks such as micro finance banks and primary mortgage institutions. For these other banks, the findings of this study may have limited applicability as they face different regulatory reporting requirements. Third, the study employed only one proxy of market perceptions of audit quality. The literature shows that the results could be sensitive to different proxies such as implied cost of equity capital, and discretionary accrual based proxies. Fourth, the study focused on KAM disclosures generally, yet market participants could perceive the effect of different KAM disclosures on audit quality differently. Therefore future studies should consider other industries, more proxies of audit quality and longer sample period.

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