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Audit Committee and Audit Report Lag: Moderating Role of Ownership Concentration of Listed Consumer Goods Firms in Nigeria

Yakubu Ishaka, Nma Ahmed Mohammed, PhD, Onipe Adabenege Yahaya ,PhD, Samuel Eniola Agbi, PhD
Department of Accounting, Faculty of Management Sciences
Nigerian Defence Academy Kaduna

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ABSTRACT: *This study examines the moderating role of ownership concentration on the effect of audit characteristics on audit report lag of listed consumer goods firms in Nigeria. The ex-post facto research design was adopted, secondary data was extracted from annual reports and accounts of listed consumer goods firms in Nigeria. The population of the study is twenty-one (21) and the sample size consist of fifteen (15) for ten years (2012-2021). Six (6) companies were flitter out from the study due the technical suspension by NXG during the period of study. Census sample techniques were adopted. PCSEs regression model was employed as technique of data analysis. The findings of the study revealed that the Audit Committee Size (ACS) and Audit Committee Meeting have a positive and significant effect on Audit Report Lag (ARL). Also, the Audit Committee Financial Expertise (ACFE) revealed a positive and insignificant effect on Audit Report Lag (ARL), while the Audit Committee Independence is established to have a negative and insignificant effect on Audit Report Lag (ARL). However, with consideration of moderating role ownership concentration, the Audit Committee Size (ACS) and Audit Committee Meeting (ACM) is found to have significant negative effect on Audit Report Lag (ARL), while the Audit Committee Financial Expertise and Audit Committee Independence are found to have a positive and insignificant effect on Audit Report Lag (ARL). The study concludes that ownership concentration moderates the effect of audit committee on Audit Report Lag. The study recommended that the management of the study firms should continue to sustain the frequency of meetings and size or numbers of the committee in their respective audit committee since the two committee have been empirically proven to have significantly reduced the timeframe of reporting their financial reports.*

KEYWORDS*:* Audit committee, Audit report lag, Ownership concentration, Consumer goods firms, Nigeria

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INTRODUCTION

The number of days between the end of the company's fiscal year and the completion of the audit report is known as the audit report lag. (Afenya et al., 2022). According to Maranjory and Tajani (2022), the gap in days between the end of the fiscal year and the day the external auditor signs the audited report is known as the audit report lag. Finding the causes of audit report lag is crucial since it will help us better understand the process of financial reporting and is connected to timely earnings release. In the same vein, Aifuwa et al., (2020) explains that timeliness of accounting information is the number of days from the date of financial year-end to the date the external auditor signs the audit report and published it to the public.

Intention behind financial reporting is to provide accounting information to assist users of financial statements to assess the amount, timing, and uncertainty of an entity's future cash inflow and outflow, and to make an informed decision. The information's correctness is one of its important characteristics. According to Adewale and Sarah (2019), financial data is operationally irrelevant if it is not made available when it is required but rather is made available so much later that it is no longer helpful for subsequent action. As a result, the accuracy and value of the information will be compromised.

Theoretically, the knowledge about the factors that determine audit report lag suggests that the efficiency of the audit committee can partly drive the timeliness of the audit (Afenya et al., 2022). Furthermore, the disclosure and presentation of financial reports are key factors of good corporate governance. According to Alshrife, Subekti, and Widya (2016), the timeliness of financial reporting problems can be solved by implementing good corporate governance through the establishment of an audit committee in a company. It is therefore argued that audit committees have a fundamental role to improve the quality of the financial report of a company through prompt and timely reporting of the information. Companies and Allied Matters Act (2004) vests that the audit committee is one of the important operating committees of the board of directors of a company' with the responsible of supervisory role, overseeing financial reporting process and monitoring managers tendencies to timely disclosure of financial information to the public for decision making.

Bala and Gugong (2015) state that audit committees are viewed as a crucial governance tool that may close the agency gap and safeguard investors' interests from management opportunism. In a similar vein, Al-hajaya (2019) claimed that the audit committee performs a monitoring and controlling function to direct the firm management with the hope of increasing the audit quality and, as a result, the accuracy of the company's financial reporting. Also, Ezeokoli et al. (2019) noted that the audit committee is saddled with the responsibility of audit firm appointments and overseeing audit quality concerning audit time lag. Therefore, a properly functioning audit

committee in ensuring vital the independence of auditors and timely reporting of quality financial information.

Abu etal. (2018) provide empirical evidence on linking of the effectiveness of audit committees to the characteristics of the committee of a company. Prior empirical research such as the studies of Nazari, etal.(2020)Zaitul and Ilona (2018), Eyenubo et al., (2017) stated the characteristics of the audit committee as; committee size, committee independence, committee diligence, committee gender, committee financial expertise. According to Ezeokoli et al., (2019) audit committee size (ACS) is measured as the number of boards of directors and shareholders appointed to be members of the audit committee of a company. It is documented that the size of the audit committee determines the direction of the audit report lag of a company.

The motivation of this research is due to the importance attributed to audit report lag which forms a fundamental basis for investors' decisions and stock markets in general because they play a crucial role in ascertaining the market trends, and also their impact on the economy. Audited financial statements are a reliable source of information for users. The audit report is critical to stakeholders and when it is done timely reported, the user may find it useful for quality decisions.

The choice of these consumer goods firms; is because the government and other policy makers and researchers pay less attention to the area of moderating the role of ownership concentration on the relationship between the audit committees and audit report lag. The study shall use secondary sources of data from audited annual financial statements and reports of the consumer goods sector in Nigeria and it would be obtained from the website of Nigeria stock exchange and firms' websites. The companies must have disclosure in their financial report and statement of the audit committee compositions in their corporate governance report. The independent variable of the study is audit committee characteristics measured by audit committee size, audit committee financial expertise, and audit committee meeting. Also, the dependent variable is represented by audit report lag. The moderating variable is represented by ownership concentration.

To this end, the questions are how does audit committee influence audit report lag of listed consumer goods firms in Nigeria and will ownership concentration play a moderating role? In this regard, the objective of the study is to examine the moderating effect of ownership concentration on audit committee and audit report lag of listed consumer goods firms in Nigeria. To achieve the mentioned objective, the following null hypotheses are formulated for the study:

H_{01}: Ownership concentration has no significant moderating effect on the association between audit committee size and audit report lag of listed consumer goods firms in Nigeria.
H_{02}: Ownership concentration has no significant moderating effect on the relationship between audit committee financial expertise and audit report lag of listed consumer goods firms in Nigeria.
H_{03}: Ownership concentration has no significant moderating effect on the nexus between audit

committee independence and audit report lag of listed consumer goods firms in Nigeria.
H_{04}: Ownership concentration has no significant moderating effect on the relationship between audit committee meeting and audit report lag of listed consumer goods firms in Nigeria.

The remaining parts of this study discuss the literature review, methodology, results, conclusions, recommendations and references.

LITERATURE REVIEW

Audit report lag is defined as the number of days that pass between the end of the fiscal year and the day the external auditor signs the audit report (Afenya et al., 2022). Hence, the timely publication of a financial reports by firms is an important aspect of financial reporting because it plays an important role in the information economy and in the investment decisions of stakeholders. Ezat et al. (2021) stated that the failure to provide information promptly results in the loss of the audit committee's characteristics and their influence on the period of issuing the auditor's report, which in turn has an effect on the disclosed information and thus adversely affects the investor's decisions.

The audit committee is a critical component of the governance structure that is tasked with financial reporting and disclosure. The audit committee is a sub-committee within the corporate governance precincts that is responsible for ensuring the quality of annual financial statements as well as the company's internal control mechanism(Adesewa & Promise, 2020). The size of the audit committee is referred to as the total number of an individual that forms or constitute the audit committee of a company. Afenya et al. (2022) documented that an individual or persons that constitute the committee are usually selected from outside the company to provide an unbiased and fair appraisal of the company's true financial status. CAMA (2004) documented that size of the audit committee should not exceed six people.

The audit committee's financial expertise describes the expert skills or knowledge in accounting and finance possessed by the members of the audit committee of a company. Afenya et al., (2022) alluded that it is expected that every company must report whether any member of its audit committee is eligible for "audit committee financial expert" status under SEC requirements. Samuel et al. (2020) assert that an essential audit committee characteristic that has gained the attention of regulators, academicians and researchers is financial expertise.

Meetings, diligence, or activity of the audit committee demonstrates the commitment of the committee's members to carry out their roles, responsibilities, and activities inside a corporation. Board meetings are the primary method for carrying out board business and effectively achieving the strategic goals of the company, according to the Nigerian Corporate Governance Code (2018). Therefore, audit committee meetings would help uncover any financial improprieties and resolve problems that might occur in the reporting process (Aifuwa et al., 2020). Hence frequent meetings

in the audit committee would help reduce problems in the financial reporting process that may cause delay or lag in reporting.

Ownership concentration refers to the percentage of shares owned by majority shareholders in a firm. According to Oluyemi (2006) as cited in Bamigboye and Akinadewo, (2020) argued that concentrated ownership is a vital corporate governance mechanism for controlling and preventing managers from deviating from owners' interest in the firm. The owners accomplish their objective by ensuring that they chose or elect their representatives into the board of directors of the firm as a check and balance for managerial control.

The study adopted agency theory due to its relevance to this study. Agency theory has a direct bearing on this study based on the fact that the multiplicity of interests among diverse stakeholders as well as the integrity gaps created by such diverse interests will precipitate the need to have in place, an effective audit committee, which is needed to act on behalf of these stakeholders to perform due diligence and ensure that the audited report is presented promptly, failure which will further amplify the conflicting interest inherent in the relationship between owners (stakeholders) and managers of the organizations. Consequently, agency theory is relevant in explaining the relationship between audit committee characteristics and audit report lag.

Nehme et al.(2015) reported a significant association between audit committee size and audit report lag of companies listed in the FTSE 350 database. This database includes companies in the United Kingdom publicly listed on the London Stock Exchange. The financial sector and utility sectors were excluded from the study. Also, Alqublani (2016) found a significant association between audit committee size and audit report lag of firms listed on Bursa Malaysia. The study data were collected from 139 companies in the financial year of 2015.The study used a regression model to analysis the data extracted from the annual report of the study companies. In addition, Oussii and Taktak (2016) suggested that audit committee size is significantly associated with audit report lag of 54 listed companies in Tunisian from the period of 2011-2013.

The impact of audit committee expertise on the audit report lag of companies listed on Bursa Malaysia was examined by Alqublani (2016). The study's findings showed that the audit report latency is highly related to the audit committee's accounting knowledge. Additionally, Nehme et al. (2015) investigated the impact of the financial knowledge of the audit committee on the audit report lag of companies listed in the FTSE 350 database. The findings of the study revealed that audit committee financial expertise has a significant and positive effect on audit report lag.

Nehme et al.(2015) assessed the effect of audit committee independence on the audit report lag of companies listed in the FTSE 350 database and researchers found a negative and insignificant effect of audit committee independence. Also, Emeh and Ebimobowei (2013) found that audit committee independence has a positive and significant effect on the timeliness of financial reports (audit report lag). Hassan and Stephen (2013) investigate the impact of audit committee meetings

on the timing of financial reports (audit report lag) for 35 firms listed on the Nigerian Stock Exchange from 2007 to 2011. The yearly reports and accounts were used to gather the data for this investigation. The result of the findings indicates that audit committee meeting is a positive and insignificantly effect on the timeliness of financial reports (audit report lag).

Tinumbia et al. (2018) findings demonstrated that an audit committee meeting significantly improves the timely delivery of financial accounts. The study only covers 2015 and is grounded in an international setting. Additionally, my study's approach to data analysis differs from the study under evaluation in that it uses STATA statistical tools to evaluate the data.

METHODOLOGY

This part would cover the methodology which will be employed to achieve the objective of the study. The section explains the design of the research, the population and sample size, the basis of sample selection, the form and sources of secondary data, and techniques of data analysis. The ex-post facto research design would be employed for the study because the panel data and a cross-sectional study would employ. The researcher to examine the effect of audit committee characteristics on audit report lag: moderating role of ownership concentration of listed consumer goods firms in Nigeria for the years 2012 to 2021. The twenty-one (21) consumer goods companies that were listed in Nigeria as of September 2022 make up the study's population. The study's sample consists of fifteen (15) publicly traded consumer products companies, six (6) of which were formally suspended by the Nigeria Exchange Group, and is taken from the designated demographic. The fifteen consumer goods companies on the list would be used for the study, hence a census sample method would be used. Multiple linear models are built into the study. The model involves the contribution of the effect of audit committee characteristics on audit report lag of listed consumer goods firms in Nigeria, to test the hypotheses of the study as presented below;

$$\mathbf{ARL}_{it}=\beta_{0it}+\beta_1 ACS_{it}+\beta_2 ACFE_{it}+\beta_3 ACID_{it}+\beta_4 ACM_{it}+\beta_5 OC+\beta_6 ACS_{it}*OC+\beta_7 ACFE_{it}*OC+\beta_8 ACID_{it}*OC+\beta_9 ACM_{it}*OC+\varepsilon_{it} \text{ ----}$$

Where: ARL= Audit Report Lag is measured by the number of days from the date of financial year-end (FYED) to the date of auditor signs the audit report (ARL), ACS= Total Number of Audit Committee Size, ACE= Total number of the audit committees with Financial Expertise, ACI= Percentage of Independent (non-executive directors) on the audit committee, ACM= Number of meetings held to expected number meeting by law by the audit committee, OC= Percentage of concentration share owner to total shares of the company, i= number bank observation, 1- - -15 t= the index of periods, ϵ =is the error component for the company, β_0= Intercept of the model "Constant", β= 1, 2 . . . 9 are parameters to be estimate.

Variables, Definition, Measurement and Sources

Table 2
Summary of Variables Definition, Measurements and Sources

Variables	Acrom	Definition	Measurement	Sources
Dependent Variable				
Audit Report Lag (ARL)		Numbers of days it takes a firm to submit the audited report	Number of days from the date of financial year-end to the date of auditor sign the audit report	(Ogoun et al., 2020)
Independent Variable				
Audit Committee Size	**(ACS)**	Is the number of audit committee	Measure as number of the audit committee members	(Tinumbia et al., 2018)
Audit Committee Financial Expertise	**(ACFE)**	Total number of audit committee financial expertise	Proportion of audit committee members who have accounting or financial management knowledge in audit committee	(Emeh &Ebimobowei, 2013)
Audit Committee Independent	**(ACI)**	Define as the number of an independent in audit committee	Proportion of audit committee director who are independent directors in audit committee	
Audit Committee Meetings	**(ACM)**	Define as the number of meeting held by audit committee	Proportion of audit committee meeting held to expected number audit committee meeting by law	
Moderating Variable				
Ownership concentration	**(OC)**	Define as the number concentration share in the company	Percentage of concentration ownership to total number of firm shares	(Widiatmoko, Badjuri, Irsad, & Adhipratama,2021)
Control Variables				
Firm Size		Natural log of total asset		
Sales growth		define as the rate increase Increase in the sales of firm	Current sales minus previous sales divided by previous sales	

Source: *Compilation by Author from Various Literature, (2021)*

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RESULTS AND DISCUSSION

This section describes the data presentation, analysis and interpretation. The section consists of descriptive analysis, diagnostic tests, regression analysis, hypotheses testing, and discussion of findings. The data, which was used to derive the dependent variable (Audit Report Lag) is in Appendix B data set. Appendix A is the raw STATA results derived from the data in Appendix B. Table 3 presents the results of descriptive statistics showing the observations, the mean, standard deviation, minimum mean and maximum mean.

Table 3
Descriptive Statistics

Variables	Obs	Mean	Std. Dev.	Min.	Max
ARLag	150	85.5667	31.1031	34	214
ACS	150	5.7667	0.6992	2	6
ACFE	150	0.1008	0.1002	0	0.3333
ACI	150	0.0937	0.1269	0	0.40
ACM	150	3.8267	0.7486	1	5
OWNCOM	150	0.6414	0.1514	0.1259	0.88

STATA 13 Result Output

Table 3 shows that ROE has minimum value of 4.27 and maximum value of 1.97. This signifies that, the least company of the sampled firms incurred 4.2% loss for each of single Naira investment in the total equity of the firm. This loss indicates poor performance and may be due to lack of management efficiency. On the other hand, the most profitable company among the sampled firms earned 1.97% of single Naira invested in the asset of the firm with an average mean of 0.1499. This implies that the average score of return on equity in the study firm is 14% with a standard deviation of 0.4305, showing that the deviation from the mean is quite significant across the sample firm. This is due to size in the total equity of the sample firms. Since ROE indicates the efficiency of the management of a firm in generating income from all the resources of the shareholders, the higher the ROE the more efficient is the firm in utilizing the shareholders' resources.

Table 4*Normality Test (Shapiro Francia W' Test for Normal Data*

Variables	Obs	W'	V'	Z	P-value
ARL	150	0.85898	17.990	5.864	0.00001
ACS	150	0.86626	17.062	5.757	0.00001
ACFE	150	0.98689	1.672	1.044	0.14835
ACI	150	0.99038	1.228	0.416	0.33866
ACM	150	0.97048	3.766	2.691	0.00356
OCON	150	0.82938	21.766	6.251	0.00001

Sources: Output generated using STATA 13

From the table 4, The study does not have sufficient evidence to say that ACFE and ACI are non-normally distributed because the p-value are higher than 0.05. On the other hand, the p-value for ACS, ACM and OCON are less than 0.05, therefore, the null hypothesis of the test can be rejected. This give sufficient evidence to say that the variable ACS, ACM and OCON are not normally distributed. Moreso, The results of specification/diagnostic test are reported in table 6

Table 5

Specification/Diagnostics Test

Variables	**Statistics**	**P-Values**
Hettest: Chi2	11.77	0.0006
Mean VIF:	1.23	
Hausman Test	503.810.0000	
Panel Correlated Standard Errors (PCSEs)		

Sources: Output generated using STATA 13

The result in table 5 revealed that model has the presence of Heteroskedasticity in the panel as indicated by the Breuch Pagan/Cook-Weisberg test for heteroskedasticity Chi2 of 11.77with p-value of 0.0006. This gives us prove that there is presence of heteroskedasticity in the study, since p-value is 0.0006 which is significant at 5%. Table 7 reported summary of PCSEs Regression Model

Table 6

Summary of PCSEs Regression Model

Variables	**Coefficient value**	**P-value**
ACS	0.9733	0.001
ACFE	0.2294	0.868
ACI	-0.1999	0.814
ACM	0.2252	0.034
OCON	10.0002	0.002
ACS*OCON	-1.4523	0.005
ACFE*OCON	0.0521	0.982
ACI*OCON	0.0678	0.960
ACM*OCON	-0.4308	0.012
FIRM SIZE	-0.0636	0.000
SALES GROWTH	0.1291	0.187
Constant	-0.5140	0.772
R^2		**0.1862**
F-Statistics	**45.00**	**0.0000**

Sources: Output generated using STATA 13 @ 5% level of significant

$H0_1$: Moderating Role of Ownership Concentration on Audit Committee Size has no significant effect on Audit Report Lag

When the aforementioned hypothesis 1 was put to the test using the PCSEs multiple regression model, the beta coefficients () of -1.4522 and 0.005 were discovered. The audit report lag (ARL) of listed consumer goods firms in the Nigerian exchange group is negatively and significantly impacted by the interaction between ownership concentration (OC) and audit committee size (ACS), it was determined after rejecting the null hypothesis. This indicates that a 1% reduction in the audit report lag of the study firm's audit committee results in a role ownership concentration increase. This suggests that the fundamental impact of ownership concentration in minimizing the financial statement reporting lag of the studied companies has to be considered.

$H0_2$: Moderating Role of Ownership Concentration on Audit Committee Financial Expertise has no significant effect on Audit Report Lag

In order to test hypothesis 3, the PCSEs multiple regression model was used. It was discovered that the beta coefficients () were 0.5212 and 0.982. It was determined that the interaction between ownership concentration and audit committee financial expertise (ACFE) had a negligibly favorable impact on the audit report lag (ARL) of listed consumer products firms in the Nigeria exchange group, but that the null hypothesis cannot be ignored. As a result, the audit report latency may grow by roughly 52% the higher the amount of ownership concentration on audit committee financial expertise (ACFE). Therefore, the outcome of this study is in tandem with previous findings of Olatunde (2021), but contradict the findings of Al-qublani et al. (2020) revealed a significant negative effect on ARL.

$H0_3$: Moderating Role of Ownership Concentration on Audit Committee Independence has no significant effect on Audit Report Lag

The beta coefficient of 0.0678 and p-value 0.960 was discovered when the PCSEs multiple regression model was used to test hypothesis 8. The interaction between ownership concentration and audit committee independence (ACI) has a positive and insignificant influence on audit report latency (ARL) of listed consumer goods firms in Nigeria exchange group, it was determined after the null hypothesis was rejected. As a result, the study's findings indicate that an increase in the ownership concentration's impact on the independence of the audit committee increases the audit report latency. This indicates that due to interests in the companies, ownership concentration is viewed as a key component for guaranteeing overall effective monitoring and strengthens the role of audit committee independence in audit report latency.

$H0_4$: Moderating Role of Ownership Concentration on Audit Committee Meetings has no significant effect on Audit Report Lag

When the hypothesis 4 was tested using the PCSEs multiple regression model, the beta coefficients of -0.4308 and p-value 0.012 were discovered. The audit report lag (ARL) of listed consumer goods firms in the Nigerian exchange group is negatively and extremely significantly impacted by

the interaction between ownership concentration and audit committee meeting (ACM), it was concluded after the null hypothesis was rejected. Therefore, a 1% increase in ownership concentration role on audit committee frequency of meeting, reduce the audit report lag by 43%. This implies listed consumers goods firms in Nigeria which have audit committee that meet more frequently experience more timely completion of external audit and publication of audited financial statements. The result of this study is in accordance our a priori work of Chukwu and Nwabochi (2019), but negate the study of Odjaremu and Jeroh (2019).

The analysis in the model revealed that audit committee size, audit committee meeting and ownership concentration have a positive and statistically significant effect on audit report lag. The findings of the study are supported by the studies of Nehme et al. (2015), Bala (2020) and Nouraldeen et al. (2021) respectively. This predicts that the audit report lag increases from the year ended to the time the financial statement was prepared and published by the external auditor and this is attributed to the role of audit committee size, audit committee frequency of meetings and ownership concentration of listed study firms. This implies audit committee size, audit committee frequency of meetings and ownership concentration has not done appropriate well to reduce the time frame of publishing an audited financial report of the listed consumer goods firms in Nigeria.

Furthermore, from the findings of the study, it was revealed that audit committee financial expertise has an insignificant positive effect on audit report lag (ARL) which is supported by the study of Olatunde (2021). The implication is that the (ACFE) that consist of about 10% to 33% in the committee may lead to delay in audit report and this may be attributed to due process of ACFE. A committee that wants prudence, transparency and accountability and due diligence may sometime have delay in reporting. Furthermore, financial experts on audit committee number may reduce incident of fraud. In addition, the audit committee independence has a negative and insignificant effect on audit report lag (ARL) which is support by the studies of Olatunde (2021), Odjaremu and Jeroh (2019). The implication is that the preparation and production of timely financial reports is slightly associated with companies that have higher levels of independence in discharging their responsibility therefore, lower lag in audit reporting

The findings on the moderating role of ownership concentration on the effect of audit committee on audit report lag provide additional evidence that ownership concentration play an important role on the effect of audit committee on audit report lag. Hashim (2017), Yusnia and Kanti (2021) supported the ownership concentration significantly reduce the audit report of lag. It also supports the argument that ownership concentration can help to reduce the agency problems that occur between shareholders and management who largely are the members of audit committee, because the highest or largest shareholder has the power to carry out the monitoring and control functions of the management. In the testing of moderation effect, it was found that ownership concentration interaction with the audit committee size and audit committee meetings have a negative and statistically significantly affect audit report lag. The ownership concentration role prove to significantly reduce or decrease delays in audit reports of the listed consumer goods firms in

Nigeria. However, the ownership concentration interaction with audit committee financial expertise and audit committee independence has an insignificant positive effect on audit report lag.

CONCLUSION AND RECOMMENDATIONS

The study examines the moderating role of ownership concentration on the effect audit committee on audit report lag of listed consumer goods firms in Nigeria for the year 2012-2021. The descriptive analysis showed that, on average, the study discovered that Nigerian listed consumer products companies are able to deliver financial reports more promptly. Their signed audited reports are published in 85 days, with a minimum of 34 days and a maximum of 214 days. The results of the study also showed that the Audit Committee Size (ACS) and Audit Committee Meeting had a favorable and significant impact on Audit Report Lag based on the interaction method of ownership concentration. (ARL). Additionally, the Audit Committee Independence is determined to have a negative and insignificant effect on Audit Report Lag (ARL), whilst the Audit Committee Financial Expertise (ACFE) demonstrated a positive and insignificant effect on ARL. (ARL). The Audit Committee Size (ACS) and Audit Committee Meeting (ACM) are found to have a significant negative effect on Audit Report Lag (ARL), while the Audit Committee Financial Expertise and Audit Committee Independence are found to have a positive and insignificant effect on Audit Report Lag when taking into account moderating role ownership concentration. (ARL). According to the study's findings, ownership concentration moderates the audit committee's impact on audit report lag. The study recommended that the management of the study firms maintain the size or number of the committees in each audit committee as well as the frequency of meetings because it has been empirically demonstrated that doing so has significantly shortened the time it takes for financial report submission.

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Appendix A Stata Result Output

```
Notes:
      1.  (/v# option or -set maxvar-) 5000 maximum variables

. *(14 variables, 150 observations pasted into data editor)

. summarize arlag acs acfe aci acm owncon
```

Variable	Obs	Mean	Std. Dev.	Min	Max
arlag	150	85.56667	31.10308	34	214
acs	150	5.766667	.6991526	2	6
acfe	150	.1007913	.1001989	0	.3333
aci	150	.0937793	.1269617	0	.4
acm	150	3.826667	.7485706	1	5
owncon	150	.6413767	.1513606	.1259	.88

```
. pwcorr arlag acs acfe aci acm owncon, sig star(5)
```

	arlag	acs	acfe	aci	acm	owncon
arlag	1.0000					
acs	0.0546 0.5071	1.0000				
acfe	0.0215 0.7936	0.0793 0.3348	1.0000			
aci	-0.1758* 0.0314	-0.0089 0.9139	-0.1617* 0.0480	1.0000		
acm	0.0080 0.9227	0.3454* 0.0000	0.0257 0.7549	-0.1291 0.1154	1.0000	
owncon	-0.1337 0.1028	0.1128 0.1691	-0.0239 0.7717	-0.0038 0.9633	0.1786* 0.0288	1.0000

```
. regress arlag acs acfe aci acm owncon fms sg
```

Source	SS	df	MS	Number of obs =	150
Model	15541.0978	7	2220.15683	F(7, 142) =	2.45
Residual	128601.736	142	905.646025	Prob > F =	0.0211
				R-squared =	0.1078
				Adj R-squared =	0.0638
Total	144142.833	149	967.401566	Root MSE =	30.094

arlag	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
acs	8.214617	4.204818	1.95	0.053	-.0975145	16.52675
acfe	4.029663	25.54925	0.16	0.875	-46.47638	54.53571
aci	-33.50041	20.37619	-1.64	0.102	-73.78028	6.779456
acm	.7971025	3.625363	0.22	0.826	-6.369554	7.963759
owncon	-18.23934	17.37973	-1.05	0.296	-52.59577	16.11709
fms	-4.253411	1.682796	-2.53	0.013	-7.57998	-.926842
sg	14.73308	8.194505	1.80	0.074	-1.465907	30.93207
_cons	151.944	33.2416	4.57	0.000	86.23162	217.6563

```
. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of arlag

         chi2(1)      =    11.77
         Prob > chi2  =   0.0006

. estat vif
```

Variable	VIF	1/VIF
fms	1.61	0.620293
acs	1.42	0.703289
acm	1.21	0.825285
owncon	1.14	0.878336
aci	1.10	0.908199
acfe	1.08	0.927449
sg	1.03	0.968672
Mean VIF	1.23	

```
. afrancia arlag acs acfe aci acm owncon
unrecognized command:  afrancia
r(199);

. sfrancia arlag acs acfe aci acm owncon

                 Shapiro-Francia W' test for normal data
```

Variable	Obs	W'	V'	z	Prob>z
arlag	150	0.85898	17.990	5.864	0.00001
acs	150	0.86626	17.062	5.757	0.00001
acfe	150	0.98689	1.672	1.044	0.14835
aci	150	0.99038	1.228	0.416	0.33866
acm	150	0.97048	3.766	2.691	0.00356
owncon	150	0.82938	21.766	6.251	0.00001

```
. xtreg arlag acs acfe aci acm owncon fms sg, fe

Fixed-effects (within) regression               Number of obs      =       150
Group variable: firm                            Number of groups   =        15

R-sq:  within  = 0.0825                         Obs per group: min =        10
       between = 0.0686                                        avg =      10.0
       overall = 0.0082                                        max =        10

                                                F(7,128)           =      1.65
corr(u_i, Xb)  = -0.6118                        Prob > F           =    0.1285

------------------------------------------------------------------------------
       arlag |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         acs |  -.0078619   .0435281    -0.18   0.857    -.0939897     .078266
        acfe |   .5562147   .3083332     1.80   0.074    -.0538751    1.166305
         aci |  -.1420667   .2162833    -0.66   0.512    -.5700202    .2858868
         acm |   .0384271   .0329374     1.17   0.246    -.0267451    .1035993
      owncon |  -.0997484   .5035211    -0.20   0.843    -1.096051     .896554
         fms |    .070574   .0488945     1.44   0.151    -.0261722    .1673202
          sg |   .132152    .074411     1.78   0.078    -.0150828    .2793869
       _cons |    2.57207   1.120976     2.29   0.023     .3540274    4.790113
-------------+----------------------------------------------------------------
     sigma_u |  .32976518
     sigma_e |  .24354881
         rho |  .64705679   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(14, 128) =     9.25             Prob > F = 0.0000

. estimates store fixed

. xtset firm year
       panel variable:  firm (strongly balanced)
        time variable:  year, 2012 to 2021
                delta:  1 unit

. xtreg arlag acs acfe aci acm owncon fms sg, re

Random-effects GLS regression                   Number of obs      =       150
Group variable: firm                            Number of groups   =        15

R-sq:  within  = 0.0565                         Obs per group: min =        10
       between = 0.0181                                        avg =      10.0
       overall = 0.0362                                        max =        10

                                                Wald chi2(7)       =      7.74
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.3561

------------------------------------------------------------------------------
       arlag |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         acs |   .0200305   .0425571     0.47   0.638    -.0633799    .1034409
        acfe |   .3504245   .2912393     1.20   0.229    -.2203941    .9212431
         aci |  -.1232854   .2071673    -0.60   0.552    -.5293257     .282755
         acm |   .0243801    .033187     0.73   0.463    -.0406652    .0894255
      owncon |  -.1087501   .3223761    -0.34   0.736    -.7405955    .5230954
         fms |  -.0098812   .0288588    -0.34   0.732    -.0664433     .046681
          sg |   .1537469   .0739164     2.08   0.038     .0088735    .2986203
       _cons |   4.453289   .6503596     6.85   0.000     3.178607     5.72797
-------------+----------------------------------------------------------------
     sigma_u |  .19989235
     sigma_e |  .24354881
         rho |  .40249575   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. estimates store random
```

```
. hausman fixed random

                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |    fixed        random       Difference          S.E.
-------------+------------------------------------------------------------
         acs |  -.0078619     .0200305      -.0278924        .0091428
       acfe |   .5562147     .3504245       .2057902        .1012373
         aci |  -.1420667    -.1232854      -.0187814        .0621305
         acm |   .0384271     .0243801        .014047               .
     owncon |  -.0997484    -.1087501       .0090016        .3867908
         fms |    .070574    -.0098812       .0804552        .0394696
          sg |    .132152     .1537469      -.0215949        .0085653
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(7) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =        1.22
                Prob>chi2 =      0.9904
                (V_b-V_B is not positive definite)

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        arlag[firm,t] = Xb + u[firm] + e[firm,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+------------------------------
                   arlag |    .1158376       .3403492
                       e |     .059316       .2435488
                       u |    .0399569       .1998923

        Test:   Var(u) = 0
                             chibar2(01) =    87.77
                          Prob > chibar2 =   0.0000

. xtreg arlag acs acfe aci acm owncon fms sg, re vce(robust)

Random-effects GLS regression                   Number of obs      =       150
Group variable: firm                            Number of groups   =        15

R-sq:  within  = 0.0565                         Obs per group: min =        10
       between = 0.0181                                        avg =      10.0
       overall = 0.0362                                        max =        10

                                                Wald chi2(7)       =     13.04
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0712

                                  (Std. Err. adjusted for 15 clusters in firm)
------------------------------------------------------------------------------
             |               Robust
       arlag |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         acs |   .0200305   .0847054     0.24   0.813    -.1459889      .18605
       acfe |   .3504245   .4016764     0.87   0.383    -.4368468    1.137696
         aci |  -.1232854   .1604192    -0.77   0.442    -.4377013    .1911305
         acm |   .0243801   .0437929     0.56   0.578    -.0614523    .1102126
     owncon |  -.1087501   .3233874    -0.34   0.737    -.7425777    .5250776
         fms |  -.0098812   .0618488    -0.16   0.873    -.1311027    .1113404
          sg |   .1537469   .0837032     1.84   0.066    -.0103084    .3178021
       _cons |   4.453289   1.471706     3.03   0.002     1.568799    7.337779
-------------+----------------------------------------------------------------
     sigma_u |  .19989235
     sigma_e |  .24354881
         rho |  .40249575   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

```
. xtset firm year
       panel variable:  firm (strongly balanced)
        time variable:  year, 2012 to 2021
                delta:  1 unit

. xtgls arlag acs acfe aci acm owncon fms sg, panels(iid) corr(independent)

Cross-sectional time-series FGLS regression

Coefficients:  generalized least squares
Panels:        homoskedastic
Correlation:   no autocorrelation

Estimated covariances      =         1          Number of obs      =       150
Estimated autocorrelations =         0          Number of groups   =        15
Estimated coefficients     =         8          Time periods       =        10
                                                Wald chi2(7)       =     19.51
Log likelihood             = -41.50014          Prob > chi2        =    0.0067
```

arlag	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
acs	.13728	.0445847	3.08	0.002	.0498955	.2246644
acfe	.162922	.270905	0.60	0.548	-.368042	.693886
aci	-.2605785	.2160537	-1.21	0.228	-.684036	.1628789
acm	-.0176792	.0384406	-0.46	0.646	-.0930214	.057663
owncon	-.1442709	.1842815	-0.78	0.434	-.505456	.2169142
fms	-.0526649	.0178431	-2.95	0.003	-.0876367	-.0176931
sg	.1148425	.0868883	1.32	0.186	-.0554555	.2851405
_cons	5.042163	.3524688	14.31	0.000	4.351337	5.732989

```
. xtset firm year
       panel variable:  firm (strongly balanced)
        time variable:  year, 2012 to 2021
                delta:  1 unit

. xtreg arlag acs acfe aci acm owncon  acsoc acfeoc acioc acmoc fms sg, fe

Fixed-effects (within) regression               Number of obs      =       150
Group variable: firm                            Number of groups   =        15

R-sq:  within  = 0.1689                         Obs per group: min =        10
       between = 0.0568                                        avg =      10.0
       overall = 0.0012                                        max =        10

                                                F(11,124)          =      2.29
corr(u_i, Xb)  = -0.4894                        Prob > F           =    0.0138
```

arlag	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
acs	.3757986	.2657266	1.41	0.160	-.1501488	.901746
acfe	1.830114	1.453239	1.26	0.210	-1.046253	4.706481
aci	.2407924	.793569	0.30	0.762	-1.329903	1.811488
acm	.3050065	.1010935	3.02	0.003	.1049141	.5050988
owncon	6.134495	2.735296	2.24	0.027	.7205776	11.54841
acsoc	-.6634407	.4437253	-1.50	0.137	-1.541697	.214816
acfeoc	-1.997087	2.254095	-0.89	0.377	-6.458573	2.4644
acioc	-.5409936	1.240186	-0.44	0.663	-2.995669	1.913682
acmoc	-.4646045	.1604524	-2.90	0.004	-.7821847	-.1470243
fms	.0379817	.0497181	0.76	0.446	-.0604245	.1363878
sg	.1481407	.0726001	2.04	0.043	.0044447	.2918366
_cons	-.2564278	1.727391	-0.15	0.882	-3.675418	3.162563
sigma_u	.31194606					
sigma_e	.23551753					
rho	.63693596	(fraction of variance due to u_i)				

```
F test that all u_i=0:     F(14, 124) =     9.23                 Prob > F = 0.0000

. estimatees store fixed
```

```
. estimates store fixed

. xtset firm year
       panel variable:  firm (strongly balanced)
        time variable:  year, 2012 to 2021
                delta:  1 unit

. xtreg arlag acs acfe aci acm owncon  acsoc acfeoc acioc acmoc fms sg, re

Random-effects GLS regression                   Number of obs      =       150
Group variable: firm                            Number of groups   =        15

R-sq:  within  = 0.1462                         Obs per group: min =        10
       between = 0.0848                                        avg =      10.0
       overall = 0.1092                                        max =        10

                                                Wald chi2(11)      =     21.87
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0254
```

arlag	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
acs	.5354044	.2687419	1.99	0.046	.0086799	1.062129
acfe	1.814099	1.430573	1.27	0.205	-.9897728	4.61797
aci	.4459195	.7810376	0.57	0.568	-1.084886	1.976725
acm	.2628033	.0999135	2.63	0.009	.0669764	.4586303
owncon	7.095586	2.726362	2.60	0.009	1.752014	12.43916
acsoc	-.8875393	.451397	-1.97	0.049	-1.772261	-.0028174
acfeoc	-2.251569	2.21251	-1.02	0.309	-6.588009	2.084871
acioc	-.7977756	1.23118	-0.65	0.517	-3.210845	1.615293
acmoc	-.4237138	.159519	-2.66	0.008	-.7363653	-.1110623
fms	-.0263494	.02824	-0.93	0.351	-.0816988	.029
sg	.1644962	.0719946	2.28	0.022	.0233894	.3056031
_cons	.6828817	1.570877	0.43	0.664	-2.39598	3.761743
sigma_u	.18776644					
sigma_e	.23551753					
rho	.38860663	(fraction of variance due to u_i)				

```
. estimates store random

. hausman fixed random
```

	Coefficients (b) fixed	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
acs	.3757986	.5354044	-.1596058	.
acfe	1.830114	1.814099	.0160151	.2556657
aci	.2407924	.4459195	-.2051271	.1404707
acm	.3050065	.2628033	.0422032	.0154006
owncon	6.134495	7.095586	-.9610917	.2208916
acsoc	-.6634407	-.8875393	.2240986	.
acfeoc	-1.997087	-2.251569	.2544823	.4309828
acioc	-.5409936	-.7977756	.256782	.1491862
acmoc	-.4646045	-.4237138	-.0408907	.0172815
fms	.0379817	-.0263494	.064331	.0409194
sg	.1481407	.1644962	-.0163556	.009357

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

  Test:  Ho:  difference in coefficients not systematic

              chi2(11) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                       =      503.81
             Prob>chi2 =      0.0000
             (V_b-V_B is not positive definite)
```

```
. xtset firm year
       panel variable:  firm (strongly balanced)
        time variable:  year, 2012 to 2021
                delta:  1 unit

. xtpcse arlag acs acfe aci acm owncon acsoc acfeoc acioc acmoc fms sg

Linear regression, correlated panels corrected standard errors (PCSEs)

Group variable:   firm                          Number of obs      =       150
Time variable:    year                          Number of groups   =        15
Panels:           correlated (balanced)         Obs per group: min =        10
Autocorrelation:  no autocorrelation                           avg =        10
                                                               max =        10
Estimated covariances      =       120          R-squared          =    0.1862
Estimated autocorrelations =         0          Wald chi2(11)      =     45.80
Estimated coefficients     =        12          Prob > chi2        =    0.0000
```

arlag	Panel-corrected Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
acs	.9733577	.3052808	3.19	0.001	.3750182	1.571697
acfe	.2294203	1.385041	0.17	0.868	-2.485211	2.944051
aci	-.1999375	.8519743	-0.23	0.814	-1.869776	1.469901
acm	.2252255	.1062044	2.12	0.034	.0170686	.4333824
owncon	10.00018	3.216689	3.11	0.002	3.695581	16.30477
acsoc	-1.452268	.5225969	-2.78	0.005	-2.476539	-.4279965
acfeoc	.0521265	2.277714	0.02	0.982	-4.41211	4.516363
acioc	.0678399	1.337853	0.05	0.960	-2.554305	2.689985
acmoc	-.4308467	.170686	-2.52	0.012	-.7653851	-.0963084
fms	-.063622	.0151334	-4.20	0.000	-.0932829	-.033961
sg	.1291046	.0978887	1.32	0.187	-.0627538	.3209629
_cons	-.514049	1.774943	-0.29	0.772	-3.992874	2.964776

```
.
```