


“Audit opinion and earnings management: Empirical evidence from Vietnam”

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AUDIT OPINION AND EARNINGS MANAGEMENT: EMPIRICAL EVIDENCE FROM VIETNAM

Abstract

This paper aims to explore the interaction between earnings management and audit opinions in the context of Vietnam – an emerging country. For this purpose, two regressions were developed with sample consists of 1,294 firm-years in the period from 2018 to 2020. The first regression model uses Audit Opinion as dependent variable, Discretionary Accruals (DA) as independent variable, and other 8 controlling variables. The results demonstrate that the Discretionary Accruals influence audit opinion, significantly at 0.1 level in the study year. This means the auditor's probability of issuing modified opinion is positively associated with earnings management and with the attendance of a Big 4 audit companies. Another regression model tests influence of auditor size (measured by Opinion of Auditor) on the interaction between management of earnings and audit opinion (measured by Discretionary Accruals) as independent variable, and other 10 controlling variables. Surprisingly, this model is not statistically significant and this confirms that the appearance of a Big 4 audit companies does not significantly affect the nexus between profit management and audit opinion in the case of Vietnamese listed companies. The results suggest that Big 4 audit firms tend to have higher requirements for the true-and-fair information on the client's financial statements and often have a tendency to issue modified opinions when the financial statements have material errors, or it is impossible to collect sufficient audit evidence. This finding may enhance the decision-making process of users in various circumstances.

Keywords

Big 4 audit firms, discretionary accruals, earnings management, modified audit opinion, Vietnamese listed companies

JEL Classification

M40, M41, M42

INTRODUCTION

To survive and develop in the market mechanism with increasingly fierce competition, enterprises must do business effectively. One of the most significant criteria for evaluating the performance and prospects of a business is earning measured by accounting. Especially, for enterprises listed on the stock market, profit targets are the top concern of investors. For investors, they are interested in profit to assess business performance and future growth prospects. Investors tend to invest in more profitable businesses (Jagongo & Mutswenje, 2014). Besides, profit is also an important indicator to measure the ability of managers to run the business. Reliability of profit becomes a top concern of both investors and managers.

Auditors play a key role in stating whether the financial statements have high quality. However, whether the auditor has fulfilled his/her responsibility in ensuring the true and fair view of the information presented in the financial statements is an issue that has gained much attention from scholars. Especially for earnings management, whether the audit firms promptly detected and issued an appropriate audit opinion.

Earnings management is becoming popular in recent years, especially in listed companies, and it reduces public confidence. According to Healy and Wahlen (1998), and Lestari and Aeni (2019), earnings management prevails when managers apply personnel judgment methods in preparing financial statements or changing the operating structure of enterprises, they could mislead the users of financial statements about the company's financial position and performance. Failure to detect earnings management in financial statements of financial scandals is associated with failures of large-scale audit firms in the world such as Arthur Andersen.

Although there have been some studies on audit opinions, they are mainly related to auditor's legal obligations, audit pressure, etc. There are few studies on the nexus between earnings management behavior and audit opinion. This study contributes to the existent literature because it is the first paper that investigates this relationship in Vietnam – an emerging economy characterized by financial transparency and public scrutiny of corporate financial information not as high as in developed economies, thereby making improvements to practical activities in listed companies in Vietnam.

The study is conducted to find out whether a high degree of earnings management affects the auditor's audit opinion (and indirectly affects audit quality) and whether being audited by one of the Big 4 audit firms will impact the interrelation between earnings management and audit opinion.

1. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

1.1. Effect of earnings management on audit opinion

The paper investigates the relationship between earnings management and the possibility that an auditor will issue a modified opinion. Before that, there were several studies by researchers around the world on this relationship, but the research results show different views.

Up to date, there have been some studies evidence of an insignificant relationship between audit opinion and earnings management, especially for a modified audit opinion. For instance, Butler et al. (2004) examined published audit opinions to see the behavior of external auditors. The study has shown that auditors have no warning about future earnings management practices of clients. Tsipouridou and Spathis (2014) investigated this relationship in listed companies on the Athens Stock Exchange. They used discretionary accruals to measure earnings management and, in their study, the auditors' qualified opinions were classified into two groups, the qualified opinion for the uncertainty of continuity and other reasons. Their results report that there is insignificant nexus between management of earnings and audit opinions.

In the same view, there are also studies by Herbohn and Rangunathan (2008 cited in Imen & Anis, 2021), Garcia-Blandon et al. (2014), Rusmanto et al. (2014), and Moazedi and Khansalar (2016). These studies concluded that the auditors did not warn investors and users of financial information about potential future problems that could affect earnings management of companies. The reason is that the auditor did not take into account the effect of earnings management when forming the audit opinion. Auditors may be aware that earnings management may reduce future profit but fail to alert investors to this information through the issuance of modified opinions.

However, some other studies indicate that earnings management has a positive relationship with modified audit opinions.

Francis and Krishnan (1999) examined the relationship between the probability of issuing a modified opinion with the levels of earnings management for a sample of listed companies in the stock market of the United States. Research results show that companies with a higher degree of earnings management are more likely to get audit opinions with modified specifications. Additionally, the study also indicates that their findings apply only in the case of auditors belonging to the Big-N auditors. Similar to the results of this study, Bradshaw et al. (2001) also evidenced that high accruals have

a close relationship with receiving audits of modified opinions.

Bartov et al. (2000) conducted a study on the interaction between discretionary accruals that is representative for earnings management and audit qualifications. A sample of 173 conspicuous firms was built with modified audit reports. The results of the study evidenced that there is a positive relationship between discretionary accruals and modified audit opinion. Ajona et al. (2008) also studied this relationship for companies with a high level of risk, especially those that were about to go bankrupt in Spain. The results prove that earnings management has a negative relationship with going concern qualified opinion but a positive relationship with the issuance of an unmodified audit opinion for other reasons. Consistent with this finding, Omid (2015) examined the relationship between modified audit opinions and earnings management with a sample of 2,818 firm-years of companies in Iran. The results indicated that qualified audit opinions are significantly associated with earnings management measured by the accounting division.

1.2. Effect of auditor size on the interaction between a high level of earnings management and modified audit opinion

There is a stream of research that has been done to assess the impact of audits on earnings management. Chung et al. (2005 cited in Gajevszky, 2014) and Othman and Zeghal (2006) pointed out that if a company is audited by good quality auditors, managers are not willing to perform accruals. There are many proxies used to assess audit quality and Big 4 audit firm is one of these proxies (Francis et al., 1999).

Pornupatham (2006) examined whether auditors reflect earnings management. The study sample was selected from companies listed in Thailand from 1999 to 2004 and these tests were performed in each type of audit opinion by assessing the mean and median value of the accruals – a measure of earnings management behavior. The results also show that Big N auditors appear to be better than non-Big N auditors at detecting earnings manage-

ment and their quality is reflected in their audit opinion. Johl et al. (2007) expanded studies on the difference of audit opinions and in particular with the existence of profit management. This paper provides evidence of the disparity in the quality of the Big 5 professionals in Malaysia. That means when there is the existence of earnings management, in comparison with non-Big 5 auditors, the Big 5 auditors likely seem to issue a modified audit opinion.

Rusmin (2010) argued that earnings management (discretionary accruals) of the companies audited by one of Big 4 audit firms seem to be lower than those of companies audited by non-Big 4 audit firms. Gerayli et al. (2011) also carried out a study with a sample of 90 non-financial listed firms in Iran for the period from 2004 to 2009, the results indicate that discretionary accruals have a negative relationship with auditor size when being audited by Big 4 firms, and companies will have a lower level of earnings management. This result is again proved by Inaam et al. (2012) and Gajevszky (2014) showing that when the companies have a high level of earnings management and were audited by Big 4 or other audit experts, tendency to receive a modified opinion.

Unlike previous studies, Imen and Anis (2021) evaluated the interrelationship between earnings management, modified audit opinions, and developed an understanding of the role of audit quality, which is set as a moderator variable. The paper used a sample of listed companies in Tunisia for the period from 2006 to 2013. The results indicate that audit quality has a significant moderating role.

From the above arguments, this study comes to examine the relationship between earnings management and modified audit opinion and ascertains that auditor size affects the relationship between receiving modified audit opinion and high earnings management. Therefore, the following hypotheses could be formulated:

- H1: There exists a significant positive association between high earnings management and modified audit opinion.*
- H2: Companies with high earnings management will receive modified audit opinions if being audited by Big 4 firms.*

2. METHODOLOGY

2.1. Research methodology

2.1.1. Empirical models

H1 and *H2* study the relationship between two factors, earnings management, and modified audit opinion, and the role of Big 4 firms in this relationship. As such, the empirical models are represented by the two logistic regression models, which aim to examine this relationship and the effect of auditor size on the relationship.

The first empirical model adapted from various previous studies (Monroe & Teh, 1993; Bradshaw et al., 2001; Bartov et al., 2000; Johl et al., 2007) is utilized to test *H1*.

$$\begin{aligned}
 AO_{it} = & \beta_0 + \beta_1 DA_{it} + \beta_2 ROA_{it} + \\
 & \beta_3 TURN_{it} + \beta_4 INVREC_{it} + \\
 & + \beta_5 TLE_{it} + \beta_6 ARLAG_{it} + \beta_7 AGE_{it} + \\
 & + \beta_8 LAO_{it-1} + \beta_9 LLOS_{it-1} + \varepsilon_{it}.
 \end{aligned} \quad (1)$$

In model 2, a moderator variable (*BIGN*) is used to examine if auditor size impacts the relationship between earnings management and audit opinion. The second model adapted from the prior study conducted by Imen and Anis (2021) is used to test *H2*.

$$\begin{aligned}
 AO_{it} = & \beta_0 + \beta_1 DA_{it} + \beta_2 BIGN_{it} + \\
 & + \beta_3 (BIGN_{it} \cdot DA_{it}) + \beta_4 ROA_{it} + \\
 & + \beta_5 TURN_{it} + \beta_6 INVREC_{it} + \beta_7 TLE_{it} + \\
 & + \beta_8 ARLAG_{it} + \beta_9 AGE_{it} + \beta_{10} LAO_{it-1} + \\
 & + \beta_{11} LLOS_{it-1} + \varepsilon_{it}.
 \end{aligned} \quad (2)$$

2.1.2. Selection and measurement of variables

Dependent variable – Audit opinion (AO_{it})

AO_{it} is a type of audit opinion. It is a dummy variable that takes 1 if the audit opinion is a modified audit opinion, 0 otherwise.

Independent variable – Earnings management (Discretionary Accruals – DA_{it})

To test the hypotheses, based on Jones (1991), several studies by authors around the world (for instance, DeFond and Subramanyam (1998), Butler

et al. (2004), Wiedman and Marquardt (2002), Charitou et al. (2007), and Johl et al. (2007)) have provided modified models for determining profit management. With the underlying framework and previous studies, a model is used to determine earnings management according to the Modified Jones Model, which was adjusted based on the synthesis from other studies.

Total accruals include two parts: normal accruals (or expected accruals) and flexible accruals (abnormal accruals – or discretionary, unexpected accruals). Earnings management in an enterprise is measured by abnormal accruals. Based on the Modified Jones Model (1991), the total accruals of the company (*i*) in year (*t*) are calculated by the formula:

$$\begin{aligned}
 \frac{TA_{it}}{A_{i,t-1}} = & \left(\alpha \frac{1}{A_{i,t-1}} \right) + \\
 & + \beta_1 \left(\frac{\{\Delta REV_{it} - \Delta REC_{it}\}}{A_{i,t-1}} \right) + \\
 & + \beta_2 \left(\frac{PPE_{it}}{A_{i,t-1}} \right) + \varepsilon_{it},
 \end{aligned} \quad (3)$$

where *TA_{it}* : total accruals of firm *i* at time *t*, which is calculate as follow: $TA_{it} = [(\Delta current\ assets_{it} - \Delta cash_{it}) - (\Delta current\ liabilities_{it} - \Delta short\ term\ debt_{it}) - (\Delta depreciation\ and\ amortization\ expense_{it})]$. Where Δ demonstrates the value change between year *t* and year (*t*-1), *A_{i,t-1}* : size of company *i* at time (*t*-1) which is measured by total assets, ΔREV_{it} : change in operating revenues between year *t* and year (*t*-1), ΔREC_{it} : change in net total receivables between year *t* and year (*t*-1), *PPE_{it}* : gross property, plant and equipment for sample firm *i* for year *t*, ε_{it} : error term.

In the above model, ε_{it} is the difference between the total accruals and the accrual values determined from normal production costs – fitted values. This difference is called discretionary accruals (DA). Thus, earnings management in the enterprise is determined according to the value of residual ε_{it} .

Moderator variable – Auditor size (BIGN_{it})

BIGN_{it} is auditor size. It is a dummy variable, taking value 1 if the external auditor is Big 4, 0 otherwise.

Control variables

ROA_{it} : Return on assets, equals net income divided by total assets;

$TURN_{it}$: Total revenues divided by total assets;

$INVREC_{it}$: Net inventory and net account receivables divided by total assets;

TLE_{it} : Leverage, measured by liabilities over equity;

$ARLAG_{it}$: Time lag of the period from the end of the financial year to the date of issuing the audit report. It is measured by the natural logarithm of the number of days;

AGE_{it} : Time of listing on HNX or HOSE, measured by the natural logarithm of the years listed

LAO_{it-1} : A dummy variable, taking the value of 1 if the company had a modified audit opinion in the prior year audit, 0 otherwise;

$LLOS_{it-1}$: A dummy variable taking the value of 1 if the company had a loss in the prior year, 0 otherwise.

2.2. Sample selection

This study sample covers Vietnamese listed companies on the Ho Chi Minh City Stock Exchange (HoSE) and Hanoi Stock Exchange (HNX) over a three-year period from 2018 to 2020. The data are primarily collected from annual reports of companies on the HNX and HOSE with the support of Vietstock. There were 743 listed companies in 2018. However, the study excluded 43 financial companies because they operated in a special regulatory environment and 53 other companies because of incomplete data. After applying these criteria, 647 companies (corresponds to the final sample size is 1,294 observations in 2019 and 2020) meeting the data requirements used in this study. However, the research data was taken from 2018 as related to the previous year.

3. EMPIRICAL RESULTS AND DISCUSSION**3.1. Descriptive statistics**

Table 1 and Table 2 show the summary statistics for variables.

Table 1. Descriptive statistics for continuous variables

Variables	Minimum	Maximum	Median	Mean	Standard Deviation	T-test different by AO
DA	-0.946	0.969	-0.009	0.016	0.157	-3.887***
ROA	-0.364	0.505	0.039	0.049	0.072	7.995***
TURN	0.000	9.644	0.820	1.118	1.172	9.100***
INVREC	0.000	0.989	0.468	0.467	0.249	-2.153**
TLE	-26.392	25.662	0.925	1.443	2.057	-1.029
ARLAG	2.080	6.130	4.394	4.337	0.289	-4.657***
AGE	0.000	2.996	2.303	2.047	0.664	-1.728*

Note: * means significance at the 0.10 level. ** means significance at the 0.05 level. *** means significance at the 0.01 level.

Table 2. Descriptive statistics for binary variables

Variable		Audit opinion		Chi-square
		Unmodified opinion (N=1196)	Modified opinion (N=98)	
BIGN	No	865	52	154.63***
	Yes	331	46	
AO	No	1165	33	535.690***
	Yes	31	65	
LLOS	No	1145	75	61.964***
	Yes	51	23	

Note: * means significance at the 0.10 level. ** means significance at the 0.05 level. *** means significance at the 0.01 level.

The descriptive statistics in Table 1 indicate that the minimum and maximum value of earnings management are about -0.946 and 0.969 , with the median and the mean are about -0.009 and 0.016 . The results of testing the mean of the independent variables according to *AO* are presented in the last column. The *T*-test value of the *DA* variable is -3.887 , which is statistically significant at the 0.01 level, reflecting that the mean between the fully accepted group and the completely unacceptable group has a difference. The clear difference in the mean value of the sample groups also occurs in the variables *ROA*, *TURN*, *INVREC*, and *ARLAG* (*T*-test values are statistically significant at 0.01 and 0.05 levels). The mean values of two variables, *TLE* and *AGE*, of the sample groups did not really differ.

Table 2 summarizes the descriptive statistical results of the binary variables: Big 4 audit firms (*BIGN*), *LAO*, and *LLOS*. Of the 1,196 enterprises that received an unmodified opinion, 331 were audited by the Big 4 (*BIGN* = 1), 31 enterprises received an unmodified opinion while the audit opinion on the previous year's financial statements was modified opinion (*LAO* = 1), and 51 enterprises received an unmodified opinion with the previous year's business results being loss (*LLOS* = 1). The Chi-square test has statistical significance with a 1% level, showing that the control variables *BIGN*, *LAO*, and *LLOS* have an influence on the audit opinion.

Table 3. Pearson correlations analysis

Correlations												
	AO	DA	BIGN	ROA	TURN	INVREC	TLE	ARLAG	AGE	LAOt_1	LLOSt_1	VIF
AO	1	–	–	–	–	–	–	–	–	–	–	–
DA	0.147**	1	–	–	–	–	–	–	–	–	–	1.055
BIGN	0.346**	0.051	1	–	–	–	–	–	–	–	–	1.068
ROA	-0.217**	0.052	-0.006	1	–	–	–	–	–	–	–	1.226
TURN	-0.141**	-0.108**	-0.021	0.151**	1	–	–	–	–	–	–	1.115
INVREC	0.061*	0.094**	-0.042	-0.203**	0.121**	1	–	–	–	–	–	1.172
TLE	0.029	0.047	-0.052	-0.176**	0.047	0.279**	1	–	–	–	–	1.118
ARLAG	0.129**	0.095**	0.109**	-0.235**	-0.197**	0.129**	0.071*	1	–	–	–	1.133
AGE	0.037	-0.069*	0.032	-0.022	0.023	-0.011	0.010	-0.077**	1	–	–	1.020
LAOt_1	0.643**	0.083**	0.208**	-0.204**	-0.135**	0.046	0.011	0.094**	0.063*	1	–	1.165
LLOSt_1	0.219**	-0.012	0.079**	-0.235**	-0.081**	0.081**	-0.047	0.044	0.064*	0.260**	1	1.136

Note: ** means correlation is significant at the 0.01 level (2-tailed). * means correlation is significant at the 0.05 level (2-tailed).

3.2. Correlation analysis

Table 3 shows the correlation coefficients between variables.

The Pearson correlation matrix demonstrates well that most of the independent variables are correlated with *AO*. Pearson correlation coefficients have statistical significance at 0.05 level and 0.01 level, only the correlations between *AO* and two variables (*TLE* and *AGE*) have low correlation coefficients and no statistical significance.

In addition, no correlation coefficient between independent variables is discovered to be more than 0.9. According to Tabachnick and Fidell (2013 cited in Imen & Anis 2021), this finding suggests that the hypothesis of correlation between independent variables is not accepted. Moreover, the variance inflation factor (VIFs) was calculated to examine the collinearity phenomenon among the variables. The VIFs are found to be less than two-level that proves that the model does not have any multicollinearity problems.

3.3. Regression results

After analyzing data, the result of the first logistic regression that examines the effects of earnings management on audit opinion is described in Table 4.

Table 4. Logistic regression results without BIGN variable

Independent variables	B	S.E.	Wald	Exp(B)	95% C.I. for EXP(B)	
					Lower	Upper
DA	3.247***	0.822	15.592	25.719	5.132	128.899
ROA	-9.473***	2.382	15.820	0.000	0.000	0.008
TURN	-0.510**	0.230	4.908	0.601	0.383	0.943
INVREC	0.460	0.610	0.567	1.584	0.479	5.239
TLE	0.040	0.060	0.460	1.041	0.927	1.170
ARLAG	0.752	0.491	2.347	2.122	0.811	5.554
AGE	0.183	0.267	0.472	1.201	0.712	2.027
LAO _{t-1}	3.893***	0.314	153.340	49.035	26.481	90.799
LLOS _{t-1}	0.177	0.461	0.148	1.194	0.483	2.948
Constant	-6.931	2.309	9.006	0.001		
-2 Log likelihood		368.547***				
Pseudo R ²		53.6%				
N		1294				

Note: * means coefficient is significant at the 0.1 level. ** means coefficient is significant at the 0.05 level. *** means coefficient is significant at the 0.01 level.

As shown, the value of -2 Log likelihood is 368.547 with statistical significance at a 1% level, showing that the model is a good fit with the population.

The model value of Pseudo R² is 0.536, which means that the model explains 53.6% of the impact of variables on the change in AO. DA, ROA, TURN, and LAO_{t-1} have impacts on audit opinion. In which, DA has a positive coefficient reflecting the positive impact of DA on AO in the study year. This indicates that a company with high earnings management result in the probability of having a modified audit opinion and HI is accepted.

In addition, LAO_{t-1} also has a positive coefficient, which means that if one specific company received a modified audit opinion in one year, the company has more probability of receiving a modified audit opinion in the next year's audit. In contrast, ROA and TURN have negative regression coefficients reflecting the negative effects of net income and total revenues are negatively impact the probability of getting a modified audit opinion.

This finding contradicts previous studies conducted by Butler et al. (2004), Herbohn and Ragunathan (2008 cited in Imen & Anis, 2021), Garcia-Blandon et al. (2014), Tsipouridou and Spathis (2014), and Rusmanto et al. (2014), who found that there is no significant effect of modified audit opinion on earnings management and via versa. The results are consistent with those reported by Francis and Krishnan (1999), Bartov et al. (2000), Bradshaw et

al. (2001), Ajona et al. (2008), Omid (2015), Imen and Anis (2021) and support H1, which states that earnings management explain the publication of modified audit opinion.

To test the influence of the audit firm size on the interaction between earnings management and audit opinion, BIGN variable was added as a moderator variable. The results of testing model 2 are presented in Table 5.

When adding the BIGN variable to the model, the explanatory level of the model is better (R² is 68.9%). The variable BIGN*DA is included in the model to test the role of BIGN as a moderator of the relationship between DA and AO. However, the regression coefficient of the variable BIGN*DA is not statistically significant, reflecting that being audited by Big 4 audit firm does not play a role in moderating the relationship between modified audit opinion and profit management. In contrast, the BIGN variable is statistically significant in the model reflecting the role of BIGN as a control variable. Hence, H2 is not supported.

These results are consistent with the previous studies conducted by Chung et al. (2005 cited in Gajevszky, 2014), Pornupatham (2006), Othman and Zeghal (2006), Johl et al. (2007), Rusmin (2010), Gerayli et al. (2011), and Gajevszky (2014) when considering BIGN as a control variable and auditor size having a significant effect on audit opinion. However, the results go against the find-

Table 5. Logistic regression results with the moderator variable (BIGN)

Independent variables	B	S.E.	Wald	Exp(B)	95% C.I. for EXP(B)	
					Lower	Upper
DA	5.378***	1.481	13.193	216.621	11.894	3945.210
BIGN	4.176***	0.579	51.953	65.124	20.919	202.738
BIGN*DA	-2.231	1.846	1.461	0.107	0.003	4.000
ROA	-10.654***	2.609	16.676	0.000	0.000	0.004
TURN	-0.605**	0.267	5.141	0.546	0.324	0.921
INVREC	1.633**	0.780	4.378	5.119	1.109	23.632
TLE	0.112	0.080	1.965	1.118	0.957	1.307
ARLAG	1.078*	0.561	3.697	2.939	0.979	8.820
AGE	0.084	0.269	0.098	1.088	0.642	1.843
LAO _{t-1}	4.347***	0.450	93.320	77.221	31.969	186.527
LLOS _{t-1}	0.103	0.567	0.033	1.108	0.365	3.369
Constant	-11.702	2.755	18.046	0.000		
-2 Log likelihood		258.27***				
Pseudo R ²		68.9%				
N		1294				

Note: * means coefficient is significant at the 0.10 level. ** means coefficient is significant at the 0.05 level. *** means coefficient is significant at the 0.01 level.

ings of Imen and Anis (2021), who stated that audit quality moderates the nexus between earnings management and audit quality.

In addition, logistics regression results suggest that the variables *ROA*, *TURN*, *INVREC*, *ARLAG*, and *LAO_{t-1}* all have an impact on *AO* at the 0.01, 0.05, and 0.1 significance levels. Positive regression coefficients reflect the positive impact of *INVREC*, *ARLAG*, and *LAO_{t-1}* on *AO*. That means enterprises with a high proportion of receivables

and inventory, delaying audit time, and receiving a modified opinion in the previous year will have a high chance of receiving a modified opinion. The reason could be the enterprises with these characteristics may have more material misstatements on their financial statements than receiving a modified opinion. On the contrary, *ROA* and *TURN* have negatively significant coefficients, which means that net income and total revenues are negatively associated with the probability of receiving a modified opinion.

CONCLUSION

The objective of this paper is to study the relationship between audit opinion and management of earnings and the effect of auditor size on this relationship. It is argued that receiving a qualified audit opinion is related to the level of earnings management. Moreover, because Big 4 audit firms arguably provide higher quality audits, so they are expected to issue more modified audit opinions than that of non-Big 4 firms if the company has a high level of earnings management.

Based on the sample of Vietnamese listed firms for the period 2018–2020, the results state that audit opinion has close relation with earnings management. This study also supports the results of similar studies performed in developed countries in concluding that companies with high earnings management will have a greater probability of receiving a modified opinion. In addition, the results also indicate that Big 4 audit firms will issue modified opinions with higher frequencies than non-Big 4 firms. That means that in Vietnam, as well as most countries in the world, Big 4 audit firms tend to have higher requirements for the truth and fair of the information on the client's financial statements and often have a tendency to issue modified audit opinions when the financial reports have material errors, or it is impossible to collect audit evidence.

In general, the findings support the results of some previous studies in concluding that companies with high earnings management will have more probability of having modified audit opinions. However, no evidence was found to support the effect of Big 4 firms on the relationship between modified audit opinion and high discretionary accruals.

Though, this study still encompasses several limitations. In fact, the study does not separate modified audit opinion into different types of opinion (qualified opinion, adverse opinion, and disclaiming opinion) and how these different types are associated with the level of earnings management. This could be a suggestion for future research.

AUTHOR CONTRIBUTIONS

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