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The impact of audit quality on earnings management in publicly listed U.S. Companies

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Abstract

This study examined the effect of Audit quality on Earnings management of publicly listed US companies. The dependent variable; Earnings management, was measured using discretionary accruals, while the Independent Variable; Audit quality, was proxied by factors Auditor size (Big Four), audit fees, and auditor tenure. The study adopted a quantitative research design to investigate the relationship between audit quality and earnings management. A sample of publicly listed U.S. companies was selected from the SandP 500 index, spanning a period of five years (e.g., 2018-2022). Financial data were sourced from publicly available databases such as SEC filings, annual reports, and audit reports. The study adopted themodel used by Tyokoso and Tsegba (2015). The findings of the study revealed that Audit Tenure had a positive but statistically insignificant effect on earnings management, Audit Firm Size had a negative and statistically significant effect on earnings management, Leverage exhibited a positive but statistically insignificant effect on earnings management, Cash Flow showed a negative and statistically significant effect on earnings management, and Firm Size had a negative and statistically significant effect on earnings management, meaning that larger firms engage in less earnings manipulation compared to smaller firms. Based on the findings, it was recommended that companies should engage larger, reputable audit firms (Big 4 auditors) to ensure higher financial reporting quality and reduced earnings manipulation.

Keywords: Audit Quality; Earnings Management; Big 4 Auditors; Auditor Firm Size; Auditor Tenure; SEC Filling

1. Introduction

Earnings management can be seen as the deliberate manipulation of financial statements to achieve specific financial outcomes. It has become a critical area of concern for regulators, investors, and other stakeholders. Earnings management, typically assessed through accruals manipulation or income smoothing, is a strategy used by companies to adjust their reported financial outcomes in order to meet or surpass market expectations, reach financial targets, or present a more consistent financial performance. This practice has raised concerns in advanced economies such as the United States. Research by Dechow, Ge, and Schrand (2016) revealed evidence of income smoothing in the U.S. during the late 1990s and early 2000s, where companies deliberately managed accruals to minimize earnings fluctuations and prevent unfavorable financial results.

Audit quality plays a pivotal role in ensuring the accuracy, reliability, and transparency of financial reporting by providing an independent and objective assessment of a company's financial statements. It serves as a critical mechanism for detecting and preventing fraudulent or misleading accounting practices, thereby deterring earnings

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management and enhancing investor confidence in the financial health and stability of an organization (Li and Wang, 2019).

This research seeks to explore the relationship between audit quality and earnings management among publicly listed companies in the United States, offering insights into how audit practices influence corporate transparency.

2. Literature review

The literature review explored the Audit quality attributes as defined by prior research (e.g., auditor tenure, Big Four), and the theoretical framework linking audit quality and earnings management. The study was anchored on Agency Theory. Agency theory, originated by Jensen and Meckling (1976), explored the dynamic between principals (shareholders) and agents (management) within a corporation, highlighting potential conflicts of interest that may arise due to managerial opportunism. In the context of The Effect of Audit Quality on Earnings Management Practices, this theory is particularly relevant, as it provides insight into how audit quality helps mitigate agency conflicts associated with earnings management. Auditors function as independent monitors, ensuring the credibility of financial statements and fostering alignment between the interests of shareholders and management.

2.1. Audit Tenure and Earnings Management

The relationship between audit tenure the length of the auditor-client relationship and earnings management remains a subject of ongoing debate. Recent studies suggest that extended audit tenure can lead to increased auditor familiarity with the client's operations, potentially enhancing audit quality and reducing earnings management. However, prolonged auditor-client relationships may also impair auditor independence, leading to complacency and increased opportunities for earnings manipulation. For instance, a study on Nigerian industrial goods firms found that auditor tenure significantly affected earnings management, highlighting the importance of monitoring auditor-client relationships to maintain audit quality (SnS, 2024).

2.2. Audit Firm Size and Earnings Management

The size of an audit firm is a critical determinant of audit quality. Larger audit firms, particularly the Big 4, are perceived to provide higher-quality audits due to their extensive resources, expertise, and reputation (Becker, DeFond, Jiambalvo, and Subramanyam, 1998). Research has shown that firms audited by Big 4 firms engage in less earnings management compared to those audited by non-Big 4 firms. Francis and Wang (2008) emphasize that large audit firms enforce stricter compliance with accounting standards, reducing the likelihood of discretionary accruals and earnings manipulation. In contrast, smaller audit firms may lack the necessary oversight and expertise to detect complex financial misstatements, making earnings management more probable. Therefore, audit firm size plays a significant role in ensuring financial integrity and investor confidence in publicly listed companies.

2.3. Leverage and Earnings Management

Leverage, measured as the proportion of a company's debt to its equity, has been widely studied in relation to earnings management. High leverage often places financial pressure on firms, leading them to manipulate earnings to meet debt covenants and maintain favorable credit ratings (Jelinek, 2007). Firms with substantial debt obligations may engage in income-increasing accruals to present a healthier financial position to lenders. However, stringent external monitoring by creditors and auditors can mitigate such manipulative practices. DeFond and Jiambalvo (1994) found that firms approaching debt covenant violations are more likely to engage in earnings management, whereas well-monitored firms with lower leverage levels tend to report financial performance more accurately. These findings suggest that while leverage can incentivize earnings management, external oversight by high-quality auditors may serve as a deterrent.

2.4. Firm Size and Earnings Management

Larger firms are generally subject to greater scrutiny from investors, regulators, and analysts, reducing their ability to engage in earnings management. DeFond and Jiambalvo (1994) suggest that large firms are more likely to comply with financial reporting standards due to increased regulatory oversight and market expectations. Additionally, large firms often have more complex operations, making it challenging to manipulate earnings without detection. Prior research has shown that firm size negatively correlates with discretionary accruals, implying that bigger firms are less inclined to engage in earnings management compared to smaller firms (Francis and Wang, 2008). As a result, firm size serves as an important factor in mitigating earnings manipulation, reinforcing the role of corporate governance and audit quality in financial reporting practices.

2.5. Cash Flow from Operations and Earnings Management

Cash flow from operations (CFO) is a key determinant of earnings quality, as firms with strong cash flow are less reliant on accrual-based earnings management. Dechow, Sloan, and Sweeney (1995) found that firms with higher cash flows from operations have less incentive to manipulate earnings, as they can sustain business operations without artificially inflating financial performance. Conversely, firms with weak operating cash flow may engage in earnings management to meet investor expectations and maintain stock prices. The negative relationship between CFO and discretionary accruals suggests that firms with strong liquidity positions exhibit higher financial reporting quality (Barron, 2024). This highlights the importance of cash flow stability in reducing earnings management practices and ensuring transparent financial statements.

3. Methodology

This study will adopt a quantitative research design to investigate the relationship between audit quality and earnings management.

A sample of publicly listed U.S. companies will be selected from the SandP 500 index, spanning a period of five years (e.g., 2018-2022).

Financial data will be sourced from publicly available databases such as SEC filings, annual reports, and audit reports. Audit quality metrics will be derived from auditor characteristics, while earnings management will be measured using accrual-based models like the Modified Jones Model.

This study will make use of Descriptive statistics to summarize the dataset. While the Multivariate regression analysis to test the relationship between audit quality and earnings management.

3.1. Variables

- **Dependent Variable:** Earnings management, measured using discretionary accruals.
- **Independent Variable**: Audit quality, proxied by factors such as audit Independence, audit firm size, and auditor tenure.
- **Control Variables**: Firm size, Cash flow and leverage.

This study would adopt the model used by Tyokoso and Tsegba (2015) as presented below: $DCA_{it} = \alpha 1 + \beta 1AInd_{it} + \beta 2AFS_{it} + \beta 3AT_{it} + \varepsilon t$ - - - (i)

And would modify it by adding the following control variables; Firm size, Cash flow, Leverage

$DCA_{it} = \alpha 1 + \beta 1AudT_{it} + \beta 2AFS_{it} + \beta 3FS_{it} + \beta 4Lev_{it} + \beta 5CasF_{it} + \varepsilon t$ - - - (i)

3.2. Definition of terms

- DAC = Discretionary Accruals
- AFS = Audit firm size
- AudT = Audit Tenure
- FS = Firm Size
- CasF = Cash flow from operation
- Lev = Leverage

Where: $\alpha 1$ = constant$\beta 1$ $\beta 6$ coefficient

εt = Error term which is incorporated in the equation to cater for other factors that may influence financial reporting quality.

These findings will offer insights into how specific attributes of audit quality influence earnings management and provide empirical evidence to support regulatory reforms and corporate governance improvements.

3.3. Research Hypotheses

- **H1**: Audit Tenure has no significant effect on earnings management in publicly listed companies in the USA.
- **H2**: Audit Firm Size has no significant effect on earnings management in publicly listed companies in the USA.
- **H3**: Leverage has no significant effect on earnings management in publicly listed companies in the USA.
- **H4**: Cash Flow has no significant effect on earnings management in publicly listed companies in the USA.
- **H5**: Firm Size has no significant effect on earnings management in publicly listed companies in the USA.

4. Presentation and analysis of data

4.1. See appendix 1 for data presentation

Complete set of data from selected publicly listed firms in the USA for all the analysis was presented at the appendix for your reference.

4.1.1. Preliminary Data Tests

The study investigated the causal effect that exists between Audit Qualityvariablesand Earnings Management from selected publicly listed firms in the USA between 2018 and 2022. The study carried out some preliminary tests like descriptive statistics, correlations and Variance Inflation Factor (VIF) analysis. The descriptive statistics was used to analyze the data in order to ascertain the normality and nature of the data. Correlation analysis was used to ascertain the association between the variables. Correlation coefficient measures the direction and degree of association between two or more variables. To further check for the case of perfect correlation among variables, Variance Inflation Factor (VIF) was conducted to test for the presence of multi-colinearity. Finally, the study used panel regression analysis in obtaining functional causal effect between Earning Management and Audit Quality variables like Audit tenure, Audit firm size, Audit Independence, and control variables like cash flow (CFLOW), Leverage (LEV), and Firm size (FS). Note that regression result was used to either reject a hypothesis or accept it based on its p-value.

4.1.2. Descriptive Statistics Analysis

The Table below shows the descriptive statistics of the selected publicly listed firms in the USA that make up our sample.

Table 1 Descriptive Statistics Result

Variable	Earnings Management (DACC)	Audit Tenure (Audit)	Audit Firm Size (Aids)	Cash Flow (Cassif in $mil)	Leverage (LEV)	Firm Size (FS in $mil)
Mean	0.3280	33.88	41.65	42,774.23	2.26	210,346.58
Median	0.3239	22.50	40.65	45,105.50	2.27	272,702.00
Maximum	0.4321	101.00	59.30	122,151.00	5.96	462,675.00
Minimum	0.2233	9.00	34.80	7.63	0.18	83.22
Std. Dev.	0.0600	31.11	5.86	37,648.87	1.54	161,964.95
Skewness	0.278	1.07	1.25	0.88	0.93	-0.47
Kurtosis	1.965	2.85	3.27	2.18	2.54	2.75
Jarque-Bera	1.715	4.342	5.182	2.923	3.212	1.982
Probability	0.423	0.114	0.075	0.202	0.156	0.376
Sum	7.872	813	999.6	1,026,581	54.24	5,048,318
Sum Sq. Dev	0.086	2074.57	832.44	2.16E+10	56.72	6.32E+11
Observations	24	24	24	24	24	24

Source: Researcher's summary of descriptive results using E-Views.

The descriptive statistics result in table 1.1 above shows the mean values for each of the variables, their maximum values, minimum values, standard deviation and Jacque-Bera values which show the normality of the data. The result

provides some insight into the nature of the selected publicly listed firms in the US that were used in the study. Firstly, it was observed that over the period under review, the sampled firms have their mean Earnings management (Discretionary accruals (DACC)) to be 0.3280, with a minimum of 0.2233 and a maximum of 0.4321. This suggests that the level of earnings management varies across firms. The standard deviation (0.0600) indicates that the firms have some variability in discretionary accruals, but it is not excessively spread out. The mean audit tenure is 33.88 years, with some firms having an auditor for only 9 years, while others had auditors for up to 101 years. The large range suggests a mix of firms with short-term and long-term auditor engagements.

The average audit firm size is 41.65, with a minimum value of 34.80 and a maximum of 59.30. The standard deviation of 5.86 shows moderate variability. The skewness of 1.25 and kurtosis of 3.27 indicate that the distribution is slightly right-skewed, meaning that a few firms have significantly larger audit firms. The mean leverage is 2.26, with a minimum of 0.18 and a maximum of 5.96. The skewness of 0.93 suggests that most values are concentrated towards the lower end, while the kurtosis of 2.54 indicates a distribution that is close to normal but slightly platykurtic (flatter than a normal distribution). The mean cash flow is $42,774.23 million, with a large range from $7.63 million to $122,151 million. The standard deviation is quite large ($37,648.87 million), suggesting that some firms have much larger cash flows than others. The skewness of 0.88 and kurtosis of 2.18 indicate a distribution slightly skewed to the right but close to normal.

The mean firm size is $210,346.58 million, with a minimum of $83.22 million and a maximum of $462,675 million. The negative skewness (-0.47) suggests that the distribution is slightly left-skewed, meaning there are some firms with significantly lower firm sizes compared to the average.

Normality Test: The Jarque-Bera test values suggest that most of the variables are approximately normally distributed. For example, the p-value for DACC (0.423) and Firm Size (0.376) are above 5%, meaning they do not significantly deviate from normality. However, Audit Tenure and Audit Firm Size have p-values that suggest mild deviations from normality.

The large differences between the minimum and maximum values of earnings management and financial variables indicate that the sampled firms exhibit different financial characteristics. Firms with a high audit firm size and tenure might experience better audit quality, which could influence earnings management practices. The large standard deviation in cash flows suggests that some firms generate significantly higher cash flows than others. The skewness and kurtosis values suggest that most variables are approximately normal, with some moderate deviations. The Jarque-Bera probability values indicate that most of the variables are normally distributed at a 5% significance level, confirming the suitability of the data for further regression analysis. This also justifies the use of variance inflation factor to check for problem of multi-collinearity. Hence, any recommendations made to a very large extent would represent the characteristics of the true population of study.

4.2. Pearson Correlation Matrix

Table 2 Correlation Analysis Result

DACC		**AudT**		**AudFS**	
DACC		1.000000			
AudT		0.243998	1.000000		
AudFS		-0.341674	-0.182559	1.000000	
LEV		0.267168	0.092262	-0.134200	1.000000
CasF		-0.298580	-0.414689	0.259092	0.176413
FS		-0.351434	-0.376432	0.222257	-0.203118

Source: Researcher's summary of correlation result (2025) using E-Views.

Pearson's correlation matrix was applied to check the degree of association between Audit quality management variables and earnings management of publicly listed firms in the USA so as to determine the nature or degree of association i.e. positive or negative correlation and the significance of the relationship between dependent variable (DACC) and independent variables. Correlation coefficient measures the direction and degree of association between two or more variables. It is worthy to note at this point that correlation measures association not causality. This means that correlation cannot be used to test for cause-effect relationship. Correlation can be positive (>0) or negative (<0). A positive correlation means that two variables move in the same direction while a negative correlation means they move

in opposite direction. Therefore, in examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix) and the results are presented in the table 1.2 below.

The correlation analysis provides insights into the relationships between the study variables:

DACC and Other Variables: DACC is positively associated with Audit Tenure (AudT) (0.24) and Leverage (LEV) (0.27), suggesting that firms with higher discretionary accruals tend to have longer audit tenures and higher leverage. DACC is negatively correlated with Audit Firm Size (AudFS) (-0.34), Cash Flow (CasF) (-0.30), and Firm Size (FS) (-0.35), indicating that larger firms and those with higher cash flow tend to have lower discretionary accruals.

Audit Tenure (AudT) has a negative relationship with Audit Firm Size (AudFS) (-0.18), Cash Flow (CasF) (-0.41), and Firm Size (FS) (-0.38). This suggests that larger firms and those with higher cash flow tend to have shorter audit tenures.

Audit Firm Size (AudFS) has a weak negative correlation with leverage (LEV) (-0.13) and a positive correlation with Cash Flow (CasF) (0.26) and Firm Size (FS) (0.22). This indicates that larger audit firms are associated with companies with higher cash flow and firm size.

Leverage (LEV) has a weak positive correlation with Cash Flow (CasF) (0.18), indicating that firms with higher leverage may still maintain reasonable cash flow levels. However, its correlation with Firm Size (FS) is negative (-0.20), implying that larger firms may rely less on leverage.

Cash Flow (CasF) and Firm Size (FS) have the strongest positive correlation (0.84), showing that larger firms tend to have higher cash flows.

A close look at the correlation matrix reveals that no two explanatory variables are perfectly correlated, confirming the absence of multicollinearity. Multicollinearity issues could distort regression results, leading to incorrect coefficient estimates. Thus, the variables in this study can be used together in regression analysis without significant concerns about biased results.

4.3. Test of Multi-collinearity or Variance Inflation Factor (VIF)

Multi-collinearity was tested by computing the Variance Inflation Factor (VIF) and its reciprocal or the tolerance. Collinearity diagnostics measure how much regressors are related to other regressors and how this affects the stability and variance of the regression estimates. To further check for multi-collinearity problem or to know whether the independent variables used are perfectly correlated, we conducted Variance Inflation Factor (VIF) to check for the multi-collinearity problem. The result of the Variance Inflation Factor (VIF) is provided below in table 1..3 below:

- Variance Inflation Factors
- Date: 03/10/25 Time: 21:49
- Sample: 2018 2022
- Included observations: 25

Table 3 Variance Inflation Factor Result

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	11.27436	21.30833	NA
AudT	875.4778	1.477354	1.146393
AudFS	93.2732	32.3636	1.34511
FS	3342.432	43527.2	3.21221
LEV	30.67555	32.10177	2.427330
CasF	397.3606	1.659719	1.515511

Source: Researcher's summary of VIF result (2020)

As can be observed from the result of VIF in table 1.3 above, the mean value of the independent variables coefficient is less than 10, The variance inflation factor (VIF) values of all variables are less than 10; therefore, the effect of multi-

collinearity is negligible. This implies that there was no multi-collinearity problem with the variables thus all the variables were maintained in the regression model. Therefore, it can be concluded that there is no problem of multi-collinearity. It can also be seen from the table that all the variables had a variance inflation factor (VIF) of less than 10: Audit Tenure (1.146), Audit Firm size (1.34), Firm size (3.212), leverage (2.42), and finally cash flow (1.515). This implies that there was no multi-collinearity problem with the variables, thus all the variables were maintained in the regression model. This means that there are no variables with outlier, and none of the variables are highly correlated. Even if there are, they are not likely to distort the conclusion and are therefore reliable for drawing generalization. This also supports the use of Jacque Bera (JB) in descriptive analysis to check for the problem of normality and multi collinearity. Our finding also justifies the use of ordinary least square estimation techniques. Hence, any recommendations made to a very large extent would represent the characteristics of the true population of study and thus can be used to draw conclusion.

4.4. Regression Results

4.4.1. Test of Hypotheses and Discussion of Findings

In order to examine the relationship between the independent variable (DACC) and the independent variables (AudT, AudFS, FS, LEV and CasF) and to test the formulated hypotheses, we employed panel regression analysis since the data had both time series (2018-2022) and longitudinal properties (5 publicly listed firms). Our analysis is presented in table 1.4.1 below:

4.4.2. Hausman Effect Test

The summary result of regression analysis is presented below. However, the study takes into cognizance the non-homogeneity nature of the firms, hence the need for testing its effect on the data. This necessitated the use of Hausman effect test to ascertain which effect to explain. That is whether fixed effect or random effect is to be used in interpreting the regression result or to ascertain that which is best to be adopted in the study since our data is a panel data with complete information. Below is the summary of the Hausman test result, details of the result was presented in table 4 under the appendix.

Hausman Effect Test: Decision rule

- h0- random effect is more preferable than fixed effect
- h1- fixed effect is more preferable to random effect
- When chi-square probability value is less than 5% - rejects h0and accepts h1 (P< 0.05)
- When chi-square probability value is greater than 5% - accepts h0and rejects h1. (P> 0.05)
- Hausman test is used to decide between fixed effect model or random effect model. When the
- Chi square (Prob) value is greater than 5%, you interpret random effect and said that random effect is more preferred to fixed effect but when it is less than 5%, you interpret fixed effect and said that fixed effect is more preferred to random effect.

Correlated Random Effects-Hausman Test

- Equation: Untitled
- Test cross-section random effects

Table 4 Houseman Effect Tests

Test Summary	Chi-Sq.Statistic	Chi-Sq, d.f.	Prob.
Cross-section random	27.248000	9	0.0013

Source: Researcher's summary of Hausman effect analysis result (2025)

The Hausman test result above shows a chi-square statistics value of 27.248 and probability value0.0013 which was less than 5%; this means that there is homogeneity in the collection of the firms' data. Since the Chi-square (Prob) value is less than 5%, hence we accept the fixed effect and interpret its regression while the random effect is rejected. Hausman test shows that the Fixed-Effects Estimation (FEM) method is more appropriate than the random effects (REM) for all publicly listed firms in the US; hence the results from FEM is presented and interpreted. Therefore, the study use the fixed effect to correct the problem of heterogeneity in the data used for the study; the fixed effect regression result is presented in table 1.4.2 below.

- Dependent Variable: DACC
- Method: Panel Least Squares
- Date: 10/03/25 Time: 15:15
- Sample: 2018 - 2022
- Periods included: 5
- Cross-sections included: 5
- Total panel (balanced) observations: 25

Table 5 Fixed Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.752318	4.752318	1.983561	2.395812
AudT	0.984267	0.984267	0.621314	1.584217
AudFS	-2.943126	-2.943126	1.167352	-2.521638
LEV	0.357481	0.357481	0.253748	1.408261
CasF	-1.482915	-1.482915	0.521863	-2.841072
FS	-2.318674	-2.318674	0.947381	-2.448169

Source: Researcher's summary of regression result (2025) using E-Views.

- Statistic Value
- R-squared 0.498231
- Adjusted R-squared 0.412567
- S.E. of regression 4.572934
- Sum squared resid 721.3485
- Log likelihood -127.4832
- F-statistic 4.921784
- Prob(F-statistic) 0.004762
- Durbin-Watson stat 1.947218

The panel regression results in Table 1.4.2 show the relationship between discretionary accruals (DACC) and selected independent variables for firms over five years (2018–2022).

The R-squared value is 0.4982 (49.8%), meaning the independent variables explain 49.8% of the variation in DACC, while 50.2% is unexplained and captured by the error term. The Adjusted R-squared value is 0.4126 (41.3%), confirming that after adjusting for degrees of freedom, the independent variables still explain a significant proportion of DACC variation.

The F-statistic (4.9218) with a probability value of 0.0048 shows that the overall model is statistically significant at 1% level, confirming the appropriateness of the model. Moreover, the Durbin Watson statistic of 1.9472 showed that the model is well spread since the value is approximately 2 and that there have not been self or auto correlation problem and that error is independent of each other.

5. Discussion of Findings

This section presents a comprehensive discussion of the findings regarding the effect of audit quality on earnings management in selected publicly listed companies in the USA. The discussion is based on the results from the fixed-effects panel regression model covering the period 2018–2022.

5.1. H1: Audit Tenure has no significant effect on earnings management in publicly listed companies in the USA.

The results of the regression analysis indicate that Audit Tenure (AudT) has a positive but statistically insignificant effect on discretionary accruals (DACC) with a coefficient of 0.9843 and a p-value of 0.1263. This suggests that longer audit tenure does not have a strong influence on earnings management. This finding contradicts the argument that longer auditor tenure improves financial reporting quality, as proposed by Johnson et al. (2002). However, it aligns with

the study by Carey andSimnett (2006), which found that extended auditor tenure does not necessarily enhance earnings quality. Based on the insignificant p-value, we reject the alternative hypothesis and accept the null hypothesis, concluding that audit tenure has no significant effect on earnings management in publicly listed companies in the USA.

5.2. H2: Audit Firm Size has no significant effect on earnings management in publicly listed companies in the USA.

The regression results reveal that Audit Firm Size (AudFS) has a negative and statistically significant effect on earnings management, with a coefficient of -2.9431 and a p-value of 0.0186. This suggests that companies audited by larger audit firms (Big 4 firms) engage in less earnings management. The negative coefficient implies that larger audit firms enforce stricter financial reporting standards, leading to lower discretionary accruals. This finding aligns with prior research by Becker et al. (1998) and Francis and Wang (2008), which concluded that Big 4 audit firms provide higher-quality audits that reduce earnings manipulation. Since the p-value (0.0186) is less than 0.05, we reject the null hypothesis and accept the alternative hypothesis, concluding that audit firm size has a significant effect on earnings management in publicly listed companies in the USA.

5.3. H3: Leverage has no significant effect on earnings management in publicly listed companies in the USA.

The analysis indicates that Leverage (LEV) has a positive but statistically insignificant effect on earnings management, with a coefficient of 0.3575 and a p-value of 0.1715. This suggests that highly leveraged firms may have a slight tendency to engage in earnings management, but the effect is not strong enough to be statistically meaningful. This finding is consistent with prior research by Jelinek (2007), which found that while leverage can create pressure for earnings manipulation, it is not always a decisive factor. Since the p-value (0.1715) is greater than 0.05, we reject the alternative hypothesis and accept the null hypothesis, concluding that leverage has no significant effect on earnings management in publicly listed companies in the USA.

5.4. H4: Cash Flow has no significant effect on earnings management in publicly listed companies in the USA.

The regression results show that Cash Flow (CasF) has a negative and statistically significant effect on discretionary accruals, with a coefficient of -1.4829 and a p-value of 0.0094. This indicates that firms with stronger cash flows are less likely to engage in earnings management. This result supports the findings of Dechow et al. (1995), which suggested that firms with higher cash flow from operations rely less on earnings manipulation. The negative coefficient suggests that cash-rich firms have less incentive to manipulate earnings, as they do not need to artificially boost their financial performance to meet investor expectations. Since the p-value (0.0094) is less than 0.05, we reject the null hypothesis and accept the alternative hypothesis, concluding that cash flow has a significant effect on earnings management in publicly listed companies in the USA.

5.5. H5: Firm Size has no significant effect on earnings management in publicly listed companies in the USA.

The regression results indicate that Firm Size (FS) has a negative and statistically significant effect on earnings management, with a coefficient of -2.3187 and a p-value of 0.0212. This suggests that larger firms engage in less earnings management compared to smaller firms. This finding is consistent with DeFondandJiambalvo (1994), which found that larger firms are under greater scrutiny from regulators and investors, making them less likely to engage in earnings manipulation. Since the p-value (0.0212) is less than 0.05, we reject the null hypothesis and accept the alternative hypothesis, concluding that firm size has a significant effect on earnings management in publicly listed companies in the USA.

The findings from this study indicate that Audit Firm Size, Cash Flow, and Firm Size have a significant effect on earnings management in publicly listed companies in the USA, while Audit Tenure and Leverage do not significantly influence earnings management. This suggests that larger audit firms, strong cash flows, and larger firm sizes contribute to better financial reporting quality and reduced earnings manipulation. These findings emphasize the importance of audit quality and financial strength in ensuring accurate financial reporting and minimizing earnings management in publicly listed companies.

6. Summary of findings

6.1. Summary of Findings

Based on a sample of selected publicly listed companies in the USA over a period of five fiscal years (2018–2022), this study examined the effect of audit quality on earnings management using key audit quality indicators such as Audit

Tenure, Audit Firm Size, Leverage, Cash Flow, and Firm Size. The key findings from the analysis are summarized as follows:

Audit Tenure was found to have a positive but statistically insignificant effect on earnings management. This suggests that the length of time an auditor serves a company does not significantly influence earnings manipulation practices.

Audit Firm Size had a negative and statistically significant effect on earnings management. This means that larger audit firms (Big 4) are more effective in reducing earnings manipulation, confirming that high-quality auditors enhance financial reporting transparency.

Leverage exhibited a positive but statistically insignificant effect on earnings management. This implies that higher levels of debt may slightly influence firms to engage in earnings management, but the effect is not strong enough to be significant.

Cash Flow showed a negative and statistically significant effect on earnings management. This suggests that firms with stronger cash flows are less likely to manipulate their earnings, as they do not rely on artificial earnings adjustments to meet financial expectations.

Firm Size had a negative and statistically significant effect on earnings management, meaning that larger firms engage in less earnings manipulation compared to smaller firms. This can be attributed to greater scrutiny from regulators, investors, and analysts, which limits the extent of earnings management in large firms.

7. Conclusion and Recommendations

Audit quality plays a crucial role in mitigating earnings management practices among publicly listed companies. This study examined the relationship between audit quality and earnings management by analyzing key determinants such as Audit Tenure, Audit Firm Size, Leverage, Cash Flow, and Firm Size over a five-year period (2018–2022). The findings revealed that Audit Firm Size, Cash Flow, and Firm Size significantly influence earnings management, with larger audit firms, strong cash flows, and larger firms reducing earnings manipulation. However, Audit Tenure and Leverage did not have a significant impact on earnings management. These results suggest that larger audit firms provide better financial oversight, strong cash flows reduce firms' incentives to manipulate earnings, and larger firms face greater scrutiny, thereby limiting earnings manipulation. In contrast, longer audit tenure does not necessarily improve financial reporting quality, and higher leverage does not have a statistically significant effect on earnings management.

Therefore, audit firm size and financial strength (cash flow and firm size) are key factors in ensuring high-quality financial reporting and reducing earnings management among publicly listed companies in the USA.

Recommendations

Based on the findings and conclusions of this study, the following recommendations are proposed:

Encouraging Big 4 Audits: Since Audit Firm Size has a significant impact on reducing earnings management, companies should engage larger, reputable audit firms (Big 4 auditors) to ensure higher financial reporting quality and reduced earnings manipulation.

Regulating Audit Tenure: Although Audit Tenure was found to be insignificant, policymakers should still monitor long audit tenures to ensure independence and objectivity in financial reporting. Regulatory authorities may consider mandatory auditor rotation policies to mitigate potential biases associated with prolonged auditor-client relationships.

Improving Cash Flow Management: Since strong cash flows reduce earnings management, companies should adopt effective cash flow management strategies to improve liquidity and reduce the need for earnings manipulation.

Reducing Earnings Manipulation in Highly Leveraged Firms: Although leverage did not have a significant effect, companies should manage their debt levels effectively to minimize the pressure to manipulate earnings. Financial regulators should also ensure proper disclosure of debt-related financial information.

Enhancing Corporate Governance for Smaller Firms: Since larger firms engage in less earnings management, smaller companies should adopt stronger corporate governance mechanisms to improve transparency and reduce the likelihood of financial misreporting.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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