

Managerial Ownership, Audit Committee, Leverage, Firm Size, and Earnings Persistence in Consumer Staples

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Abstract

This study examines the associations between managerial ownership, audit committee meeting intensity, leverage, and firm size with earnings persistence among consumer non-cyclic firms listed on the Indonesia Stock Exchange. Purposive sampling yielded 14 firms from 2021 to 2025. Three outliers were removed from the 70 initial firm-year observations, leaving 67 observations. Multiple linear regression was performed using IBM SPSS 27. Because the residuals were non-normal, the primary inference used 10,000 bootstrap resamples and 95% bias-corrected and accelerated confidence intervals. Leverage was positively associated with earnings persistence ($B=0.298$, $p=0.018$, 95% BCa [0.035, 0.532]). Managerial ownership, audit committee meeting frequency, and firm size were not significant because their confidence intervals crossed zero. The model produced $R^2=0.140$ and adjusted $R^2=0.085$, while the omnibus test was exactly at the conventional threshold ($F=2.526$, $p=0.050$). A single sector, five-year period, small sample, and unavailable raw inputs for the persistence score constrain generalizability and measurement replication. The discipline and monitoring accompanying debt financing explain earnings persistence more consistently than quantitative governance indicators or asset scale. This study updates the evidence for Indonesian consumer staples and employs bootstrap inference.

Keywords: Audit Committee, Earnings Persistence, Firm Size, Leverage, Managerial Ownership

1. INTRODUCTION

Earnings information is widely used to evaluate corporate performance, design compensation contracts, monitor debt, and make investment decisions. However, a large earnings figure does not necessarily indicate high earnings quality. Financial statement users must assess whether earnings arise from sustainable operating activities and are likely to recur in subsequent periods. This capacity is captured by the persistence of earnings. The stronger the association between current and future earnings, the more useful current earnings are for forecasting and for valuation. Persistence depends on the measurement model, contracting environment, and composition of accruals and cash flows (Dechow et al., 2010; Dichev et al., 2013; Saputri & Sari, 2020). Operating characteristics, asset intensity, and demand patterns also create cross-firm variations in persistence (Canina & Potter, 2019; Kimouche, 2021). In the Indonesian capital market, reported earnings should be interpreted together with the measurement context and other information because investor reactions do not always differ between income-smoothing and non-income-smoothing firms (Ridwansyah and Maryani, 2008).

Consumer non-cyclicals provide an important setting because the demand for essential products is relatively recurring, whereas firm-level earnings remain exposed to input costs, supply chain conditions, purchasing power, pricing, exchange rates, and financing. The 2021–2025 period covers post-pandemic recovery and changes in financing conditions that may affect performance and reporting. Aljughaiman et al. (2023) show that financial pressure during the COVID-19 period is associated with earnings management. Therefore, stable sectoral demand does not automatically produce persistent earnings. This setting strengthens the case for examining governance, leverage, and firm size, specifically among Indonesian consumer non-cyclicals.

This study examined four determinants. Managerial ownership represents an incentive-alignment mechanism because managers bear some of the economic consequences of corporate decisions. However, highly concentrated managerial ownership may reinforce managerial control and weaken the monitoring. Because the relationship between ownership structure and reporting quality depends on control concentration and the institutional environment (Alzoubi, 2016; Al-Duais et al., 2022; Dong et al., 2020), managerial ownership does not invariably ensure persistent earnings.

The audit committee represents the internal oversight of financial reporting. This study uses the annual number of formal audit committee meetings as a proxy for the monitoring activity. More frequent meetings provide opportunities to review accounting estimates, internal controls and auditor findings. However, meeting frequency does not capture competence, independence, agenda quality, or follow-up. Evidence on committee expertise and effectiveness indicates that substantive monitoring quality matters more than formal existence alone ([Astuti et al., 2021](#); [Bilal et al., 2018](#); [Kusnadi et al., 2016](#); [Zgarni et al., 2016](#)), while [Agustina et al. \(2021\)](#) identify the role of an audit committee in the governance–earnings persistence relationship.

Leverage represents external monitoring and contractual pressure. Payment obligations and creditor oversight may discipline management, whereas refinancing pressure or the risk of covenant violations may encourage managers to alter the timing of earnings recognition. Both mechanisms are supported by evidence on debt financing, earnings quality and earnings management ([Alzoubi, 2018](#); [Fields et al., 2018](#); [Ishak, 2024](#); [Lazzem & Jilani, 2018](#)). Indonesian evidence is also mixed, [Nurdiniah et al. \(2021\)](#) report a positive relationship, whereas [Tika et al. \(2025\)](#) find no significant effect in the property sector. These differences motivate a sector-specific reassessment of consumer non-cyclicals.

Firm size captures the operating scale and is proxied in this study by the natural logarithm of total assets. A larger asset base indicates a larger firm ([Sari et al. 2022](#)). Large firms generally have greater resources, stronger internal control capacity, broader financing access, and greater public scrutiny, but their operational complexity may also increase accounting discretion. [Dang and Vu \(2022\)](#) report a positive firm size effect on earnings persistence, whereas [Nurdiniah et al. \(2021\)](#) find no significant effect. [Annisa et al. \(2026\)](#) and [Sudarmanto et al. \(2026\)](#) also incorporate firm size into Indonesian earnings quality or earnings management models, although their designs differ from that of the present study.

The research gap has three dimensions. First, managerial ownership, audit committee activity, leverage, and firm size are often examined separately, leaving their relative contributions within a model unclear. Second, cross-sector findings are inconsistent and cannot be directly transferred to consumer non-cyclicals, where relatively stable demand coexists with cost and financing pressures. Third, small accounting samples frequently yield non-normal residuals, whereas hypothesis decisions often continue to rely on parametric standard errors. [Pek et al. \(2018\)](#) recommended inferential procedures that directly address non-normality. This study contributes new evidence by examining the four determinants jointly during 2021–2025 and using bootstrap confidence intervals as the primary basis for inferences.

This study examines the partial and joint associations of managerial ownership, audit committee meeting frequency, leverage proxied by the Debt-to-Equity Ratio (DER), and firm size with earnings persistence in Indonesia. Its empirical contribution is updated evidence from 67 firm-year observations of consumer non-cyclicals. Its methodological contribution is the joint reporting of coefficients, bootstrap p-values, and 95% Bias-Corrected and accelerated (BCa) confidence intervals, so that direction and estimation uncertainty can be evaluated together. Practically, the results help distinguish indicators supported by the data from formal attributes that remain insufficient to explain earnings persistence.

2. LITERATURE REVIEW

2.1 Agency Theory and Earnings Persistence

Agency theory views firms as a nexus of contracts in which owners delegate control over resources to managers. The separation of ownership and control creates information asymmetry and permits managers to pursue actions that are not fully aligned with shareholders' interests. Monitoring expenditures, bonding costs, and residual losses arise as parties attempt to manage these conflicts ([Jensen & Meckling, 1976](#)). In financial reporting, agency problems are visible because managers

possess private knowledge about operational sustainability, while outside parties observe accounting outputs. Discretion can be used to communicate that knowledge, but it can also be used to alter recognition timing and to meet short-term targets.

Earnings persistence is relevant to this framework because recurring earnings allow owners, creditors, and analysts to evaluate the performance more effectively. Higher-quality earnings improve the information environment and reduce uncertainty ([Eliwa et al., 2021](#); [Saleh et al., 2020](#)). In contrast, real earnings management can reduce both persistence and informativeness when actions taken to meet current targets sacrifice future operating cash flows ([Li, 2019](#)). Therefore, governance mechanisms may indirectly affect persistence by constraining opportunistic choices, strengthening oversight, or changing the contractual pressures facing management.

2.2 Managerial Ownership and Earnings Persistence

Managerial shareholdings create an alignment effect because decisions that reduce firm value also reduce managers' wealth. A stronger long-term orientation should encourage sustainable projects and reporting choices that reflect the underlying economic performance. Managers who are also shareholders may be less willing to inflate short-lived earnings that would damage future value. This reasoning predicts a positive association between managerial ownership and ownership persistence.

However, very high managerial ownership may create entrenchment, a condition in which managers become more difficult to replace and gain greater discretion over the boards and reporting. Emerging market studies show that ownership effects on real earnings management depend on control distribution and investor protection ([Dong et al., 2022](#); [Dong et al., 2020](#)). [Alzoubi \(2016\)](#) likewise finds that ownership categories do not have uniform reporting effect. In consumer non-cyclicals, managers who hold shares are expected to have a stronger interest in sustaining production, distribution and long-term earnings. Therefore, a positive prediction is retained, while the possibility of entrenchment is acknowledged.

H₁: Managerial ownership is positively associated with earnings persistence

2.3 Audit Committee and Earnings Persistence

The audit committee assists the board in overseeing financial reporting, internal controls, and relationships with internal and external auditors. Meeting frequency can indicate monitoring effort because additional meetings provide opportunities to examine accounting issues and follow up on the recommendations. International evidence associates effective audit committees with higher reporting quality and lower earnings management ([Alzoubi, 2019](#); [Hamdan, 2020](#); [Zgarni et al., 2016](#)). [Al-Otaibi and Nashat \(2022\)](#) emphasize committee activity and experience, while [Abdullah et al. \(2024\)](#) demonstrate that audit committees operate alongside board and ownership mechanisms to explain earnings quality.

Meeting frequency does not necessarily reflect the effectiveness of the audit committee. Meetings may satisfy formal requirements without substantive discussions or adequate follow-ups. Financial expertise, independence, access to information, and follow-up quality determine whether meetings improve reporting ([Astuti et al., 2021](#); [Bilal et al., 2018](#); [Kusnadi et al., 2016](#)). In consumer non-cyclicals, high transaction volumes, inventory management, and broad distribution networks increase the need for regular supervision. Because this study only observes meeting frequency, the hypothesis concerns the intensity of monitoring activity rather than overall committee quality.

H₂: The frequency of audit committee meetings is positively associated with earnings persistence

2.4 Leverage and Earnings Persistence

Debt reduces the free cash flow available for discretionary use and adds scrutiny from creditors. Payment schedules, solvency assessments, and contractual covenants can strengthen operating discipline and encourage managers to preserve sufficient earnings to meet their obligations. Under moderate leverage and effective monitoring, these mechanisms may improve performance consistency

and discourage actions that generate only temporary earnings. [Nurdiniah et al. \(2021\)](#) support the monitoring argument through a positive leverage–persistence association, while [Megarani et al. \(2025\)](#) identify debt levels as a determinant of persistence among Indonesian consumer non-cycles.

Conversely, debt may create pressure to meet contractual ratios or to obtain new financing. [Fields et al. \(2018\)](#) link refinancing pressure to discretionary accruals, while [Lazzem and Jilani \(2018\)](#) document an association between leverage and Accrual-based Earnings Management (AEM). [Ishak \(2024\)](#), [Bui et al. \(2022\)](#), and [An et al. \(2016\)](#) show that earnings quality, financing structure, and institutional conditions shape reporting incentives. Consumer non-cyclicals require recurring working capital for inputs and distribution; thus, creditor monitoring may support performance stability, even though contractual pressure may still reduce persistence. Based on the debt discipline mechanism and profitable firm sample, this study predicts a positive association.

H₃: Leverage is positively associated with Earnings Persistence (EPS)

2.5 Firm Size and Earnings Persistence

Large firms generally possess broader asset bases, product diversification, financing access, and internal control systems. Diversification may absorb shocks to individual product lines, whereas scrutiny from analysts, regulators, and institutional shareholders may reduce information asymmetry. Therefore, firm scale is expected to support more stable earnings. [Dang and Vu \(2022\)](#) provide evidence of a positive association between firm size and persistence in an emerging market.

Positive predictions were conditional. Organizational and transactional complexity may expand accounting estimation choices, while greater market attention may intensify the pressure to meet earnings targets. [Diri et al. \(2020\)](#) and [Deng et al. \(2017\)](#) show that market and institutional characteristics shape governance, corporate decisions and earnings quality. In Indonesian consumer staples, [Annisa et al. \(2026\)](#) and [Sudarmanto et al. \(2026\)](#) include firm size in earnings quality or earnings management models but under different specifications. Therefore, the partial association between size and persistence remains to be tested after controlling for leverage and governance. Evidence that size, profitability, and asset characteristics jointly influence corporate policy in Indonesia further supports this contextual interpretation ([Nur, Yuniarti, & Rusmianto, 2022](#)).

H₄: Firm size is positively associated with Earnings Persistence (EPS)

2.6 Joint Effect

The four determinants represent complementary channels: managerial ownership aligns incentives, audit committee meeting frequency captures internal monitoring activity, leverage introduces external discipline, and firm size reflects capacity and complexity. In consumer non-cyclicals, these channels operate within recurring production and distribution activities that require continuous working capital control. The joint model evaluates whether the configuration explains earnings persistence. Governance evidence also indicates that reporting quality is better understood as the outcome of combined mechanisms than a single stand-alone attribute ([Agustina et al., 2021](#); [Abdullah et al., 2024](#); [Amyulianthy et al., 2026](#)).

H₅: Managerial ownership, audit committee meeting frequency, leverage, and firm size are jointly associated with earnings persistence

3. RESEARCH METHODOLOGY

3.1 Design, Population, and Sample

This study applied a quantitative explanatory design to secondary data. The unit of analysis is the firm-year for consumer non-cyclicals companies listed on the Indonesia Stock Exchange during 2021–2025. Data were collected from audited financial statements and annual reports published on exchange or corporate websites. As firms were not randomly assigned to particular ownership levels, meeting frequencies, leverage ratios, or sizes, the coefficients were interpreted as conditional associations rather than causal effects.

Purposive sampling began with 130 firms in the study. Sequential screening excluded companies that were not continuously listed, lacked complete reports, were delisted, reported no managerial shareholding, or incurred losses according to the study criteria. Fourteen firms met all the requirements, producing 70 initial firm-year observations. Three observations identified as outliers during data cleaning were removed, leaving 67 observations in the final model. Table 1 separates firm counts from observation counts to avoid conflating these two units.

Table 1. Sample selection process

Stage	Description	Count
Population	Consumer non-cyclicals firms	130 firms
Exclusion 1	Not continuously listed during 2021–2025	(47)
Exclusion 2	Incomplete annual/financial reports	(37)
Exclusion 3	Delisted during the study period	(17)
Exclusion 4	No managerial share ownership	(5)
Exclusion 5	Loss-making under the study criteria	(10)
Sample	Firms meeting all criteria	14 firms
Initial observations	14 firms × 5 years	70
Data cleaning	Outlier observations removed	(3)
Final observations	Observations analyzed	67

3.2 Variable Definitions and Measurement

Earnings Persistence (PERS) represents the ability of earnings to carry over from one period to the next. Consistent with the AR (1) model used in this thesis and the earnings persistence literature (Sloan, 1996), earnings in period t are paired with earnings for the same firm in period $t-1$ and estimated using the following equation: The coefficient β_1 is the persistence parameter, with a larger value indicating a stronger inter-period association. This study uses firm-year PERS scores underlying the SPSS output. The raw inputs and construction syntax were unavailable in the article materials, therefore, the score-construction stage was not re-estimated. This limitation is disclosed to distinguish the conceptual procedure from information that can be independently replicated.

$$PERS_{i,t} = \alpha + \beta_1 MO_{i,t} + \beta_2 AC_{i,t} + \beta_3 LEV_{i,t} + \beta_4 SIZE_{i,t} + \varepsilon_{i,t} \quad (1)$$

Formula 1 represents an earnings persistence model, which examines the extent to which current earnings are influenced by prior-period earnings. $Earnings_{i,t}$ denotes the current earnings of firm i in period t , $Earnings_{i,t-1}$ represents previous-period earnings, β_0 is the constant term, β_1 indicates the persistence coefficient, and $\varepsilon_{i,t}$ represents the error term. A higher β_1 value indicates greater earnings persistence, meaning that past earnings provide stronger predictive information about future earnings.

Managerial Ownership (MO) is the number of shares held by directors and management divided by the total shares outstanding. The Audit Committee (AC) variable is the number of official audit committee meetings held during the year, not the number of committee members. The proxy captures activity intensity but not competence or the meeting's substance. Leverage (LEV) is the debt-to-equity ratio, measured as total liabilities divided by total equity. Firm size (SIZE) is the natural logarithm of total assets, which reduces the scale disparity. Table 2 summarizes the definitions and predicted effects.

Table 2. Variable operationalization

Variables	Symbol	Measurement	Scale	Expected
Earnings persistence	PERS	Score from $Earnings_t = \beta_0 + \beta_1 Earnings_{t-1} + \varepsilon$	Ratio	—
Managerial ownership	MO	Management shares ÷ total shares outstanding	Ratio	+
Audit committee	AC	Audit committee meetings per year	Count	+
Leverage	LEV	Total liabilities ÷ total equity (DER)	Ratio	+
Firm size	SIZE	Ln(total assets)	Ratio	+

3.3 Analytical Model and Inference

The analysis was performed using IBM SPSS Statistics 27. The initial procedures included descriptive statistics and model diagnostics: a one-sample Kolmogorov–Smirnov test for residual normality, tolerance, and variance inflation factors for multicollinearity, a Glejser test for heteroskedasticity, and the Durbin–Watson statistic for autocorrelation. The following multiple linear regression model was estimated.

$$PERS = 2.116 - 0.269MO - 0.035AC + 0.298LEV - 0.058SIZE + \varepsilon \quad (2)$$

Formula 2 represents a regression model used to examine the determinants of earnings persistence. $PERS_{i,t}$ represents earnings persistence of firm i in period t , while $MO_{i,t}$ denotes managerial ownership, $AC_{i,t}$ represents audit committee characteristics, $LEV_{i,t}$ indicates leverage, and $SIZE_{i,t}$ represents firm size. The coefficient α is the constant term, β_1 – β_4 are the regression coefficients measuring the effect of each independent variable, and $\varepsilon_{i,t}$ represents the error term. This model evaluates how corporate governance mechanisms and firm characteristics influence the persistence of earnings.

Pooled Ordinary Least Squares (Pooled OLS) were retained because it is consistent with the thesis design and the IBM SPSS Statistics 27 output underlying the article, and because the model estimates the average association across all firm-year observations. This choice is not superior to the panel data estimation. Pooled OLS does not separate within-firm from between-firm variation or control for time-invariant firm heterogeneity. Therefore, the coefficients are interpreted as conditional associations, while fixed-effects or random-effects models with firm-clustered standard errors should be used as robustness tests in future research.

The residual distribution was non-normal in nature. OLS coefficients were retained as point estimates, but the primary partial inference used 10,000 nonparametric bootstrap resamples, two-sided p -values, and 95% Bias-Corrected and accelerated (BCa) confidence intervals. Evidence of an association required $p < 0.05$ and an interval that excluded zero. This strategy follows the recommendations to address non-normality by estimating uncertainty through resampling rather than relying solely on mechanical transformation (Pek et al., 2018). The F -test, R^2 , and adjusted R^2 were reported for the overall model assessment.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Table 3. Descriptive statistics

Variables	N	Minimum	Maximum	Mean	Std. deviation
Managerial ownership (MO)	67	0.00013	0.68309	0.126126	0.193828
Audit committee meetings (AC)	67	3.00000	9.00000	4.716418	1.264983
Leverage/DER (LEV)	67	0.09398	1.90314	0.555240	0.403170
Firm size (SIZE)	67	12.15119	19.19992	15.873745	1.771286
Earnings persistence (PERS)	67	0.18421	2.12939	1.152856	0.349529

Table 3 shows the characteristics of the 67 observations. Managerial ownership averages 0.1261, or approximately 12.61% of shares outstanding, with a minimum of 0.00013 and a maximum of 0.68309. Its standard deviation of 0.19383 exceeds the mean, indicating considerable heterogeneity, some observations contain almost no managerial ownership, whereas others are highly concentrated. This dispersion matters because the linear coefficient summarizes an average relationship across a wide ownership range, the model does not estimate an entrenchment threshold or any other nonlinear form.

Audit committees held an average of 4.72 meetings per year, ranging from three to nine, and displayed less relative variation than managerial ownership. The mean leverage is 0.5552, suggesting that total liabilities equal approximately 55.52% of equity at the average observation level. The range from 0.09398 to 1.90314 indicates substantial variation in the financing policy. The mean firm size is 15.8737 in log assets, with a standard deviation of 1.7713. The average persistence score was 1.1529, ranging from 0.18421 to 2.12939. Scores above one for some observations should be understood as a property of the study measure rather than an unconditional claim that earnings will grow indefinitely.

4.2 Model Diagnostics

Table 4. Summary of regression diagnostics

Test	Indicator	Result	Criterion	Conclusion
Residual normality	K-S, asymp. p, Monte Carlo p	0.123, 0.014, 0.013	$p > 0.05$	Non-normal
Multicollinearity MO	Tolerance, VIF	0.934, 1.071	Tol.>0.10, VIF<10	Not indicated
Multicollinearity AC	Tolerance, VIF	0.811, 1.234	Tol.>0.10, VIF<10	Not indicated
Multicollinearity LEV	Tolerance, VIF	0.736, 1.358	Tol.>0.10, VIF<10	Not indicated
Multicollinearity SIZE	Tolerance, VIF	0.607, 1.648	Tol.>0.10, VIF<10	Not indicated
Heteroskedasticity	Glejser p: MO, AC, LEV, SIZE	0.512, 0.244, 0.387, 0.874	$p > 0.05$	Not indicated
Autocorrelation	DW, dU, 4 - dU	1.790, 1.7327, 2.2673	$dU < DW < 4 - dU$	Not indicated

The diagnostics in Table 4 show that the residuals do not meet the normality assumption. The Kolmogorov–Smirnov statistic was 0.123, with an asymptotic p -value of 0.014 and a Monte Carlo p -value of 0.013, both of which were below 0.05. This result motivates the bootstrap inference. Residual non-normality does not change the fitted OLS coefficients in the observed sample, but it can impair parametric standard errors and tests in small-sample studies. Therefore, this study treats BCa intervals as the primary evidence and presents conventional OLS results for comparison.

The model exhibited no multicollinearity. The tolerance values ranged from 0.607 to 0.934, and the VIFs ranged from 1.071 to 1.648, which were well below the conventional warning levels. The Glejser test does not indicate heteroskedasticity because every p value exceeds 0.05. The Durbin–Watson statistic of 1.790 lies between $dU=1.7327$ and $4-dU=2.2673$, satisfying the criterion for no autocorrelation. These findings support model stability under the available diagnostics, although the firm-year structure should ideally also be examined with panel estimators and standard errors clustered by firm.

4.3 Regression and Hypothesis Tests

$$PERS = 2.116 - 0.269MO - 0.035AC + 0.298LEV - 0.058SIZE + \varepsilon \quad (2)$$

Formula 2 represents the estimated regression model for earnings persistence. The constant (2.116) indicates the expected level of earnings persistence when all independent variables are zero. The coefficient of Managerial Ownership ($MO=-0.269$) indicates that a one-unit increase in

managerial ownership is associated with a 0.269 decrease in earnings persistence, while the Audit Committee coefficient ($AC=-0.035$) shows a 0.035 decrease in earnings persistence. Conversely, Leverage ($LEV=0.298$) has a positive effect, indicating that a one-unit increase in leverage increases earnings persistence by 0.298, whereas Firm Size ($SIZE=-0.058$) indicates that larger firms are associated with a 0.058 decrease in earnings persistence. The error term (ε) represents other factors influencing earnings persistence that are not included in the model.

The coefficient signs describe the conditional relationships after holding the other variables constant. Under conventional OLS inference, leverage is the only significant predictor at the 5% level ($p=0.015$). Firm size is close to but above the threshold ($p=0.055$), and managerial ownership and audit committee meeting frequency are not significant. Because the residuals are non-normal, the final decisions are based on the bootstrap columns in Table 5.

Table 5. OLS and BCa bootstrap results

Predictor	B	OLS SE	β	t	OLS p	Boot. SE	Boot. p	95% BCa
Constant	2.116	0.419	—	5.049	<0.001	0.498	<0.001	[1.168, 3.130]
MO	-0.269	0.220	-0.149	-1.226	0.225	0.185	0.140	[-0.623, 0.102]
AC	-0.035	0.036	-0.128	-0.979	0.332	0.040	0.361	[-0.110, 0.050]
LEV	0.298	0.119	0.343	2.502	0.015	0.126	0.018	[0.035, 0.532]
SIZE	-0.058	0.030	-0.296	-1.958	0.055	0.032	0.073	[-0.124, 0.003]

Table 5 shows the bootstrap preserves the OLS point estimates while recalculating their uncertainties across 10,000 resamples. Leverage had $B=0.298$, bootstrap $SE=0.126$, $p=0.018$, and a 95% BCa interval of [0.035, 0.532]. The interval was wholly positive, supporting H_3 . The intervals for managerial ownership [-0.623, 0.102], audit committee meetings [-0.110, 0.050], and firm size [-0.124, 0.003] all cross the zero. Consequently, H_1 , H_2 , and H_4 are unsupported. Interval-based decisions prevent negative point estimates from being treated as evidence of adverse effects when sampling uncertainty still includes no association.

Table 6. Model fit and hypothesis decisions

Component/Hypothesis	Main statistic	Decision	Brief interpretation
Model fit	$R=0.374$, $R^2=0.140$, Adj. $R^2=0.085$	Low explanatory power	8.5% explained after adjustment
Omnibus test/ H_5	$F(4,62)=2.526$, $p=0.050$	Threshold support	Exactly at 5%, interpret cautiously
H_1 : $MO \rightarrow PERS (+)$	$B=-0.269$, boot. $p=0.140$	Unsupported	Interval crosses zero
H_2 : $AC \rightarrow PERS (+)$	$B=-0.035$, boot. $p=0.361$	Unsupported	Interval crosses zero
H_3 : $LEV \rightarrow PERS (+)$	$B=0.298$, boot. $p=0.018$	Supported	Interval wholly positive
H_4 : $SIZE \rightarrow PERS (+)$	$B=-0.058$, boot. $p=0.073$	Unsupported	Interval crosses zero

Table 6 shows the model has $R=0.374$, $R^2=0.140$, and adjusted $R^2=0.085$. After accounting for the predictor count and sample size, it explained approximately 8.5% of the variation in the persistence score. The omnibus test yielded $F(4,62)=2.526$ with $p=0.050$. Under the study's $p \leq 0.05$ rule, H_5 received threshold support. Because the value is exactly at the boundary and the explanatory power is low, however, the result is more accurately described as marginal rather than strong evidence. A minimal rounding difference could change a binary label, whereas the substantive conclusion that most variation remains unexplained would not change.

4.4 Discussion

4.4.1 Managerial Ownership and Earnings Persistence

H_1 is not supported. The managerial ownership coefficient is negative, but its wide interval includes zero, therefore, the data cannot distinguish a negative association from no association at 95% confidence. This finding indicates that the aggregate proportion of management-owned shares is insufficient to explain sustainable earnings. The theorized alignment effect may depend on voting

distribution, the identity and tenure of manager-shareholders, the presence of a controlling owner, and managers' investment horizons. The aggregate MO ratio does not capture these dimensions.

This result is consistent with the literature that rejects a uniformly linear ownership effect. [Al-Duais, Malek, Abdul-Hamid, and Almasawa \(2022\)](#) and [Dong, Wang, Zhang, and Zhou \(2020\)](#) find that ownership type and concentration relate differently to real earnings management, while [Alzoubi \(2016\)](#) documents heterogeneous ownership effects in emerging markets. In Indonesia, [Tika, Pentiana, and Rusmianto \(2025\)](#) report a managerial ownership–persistence relationship that differs from the simple positive prediction, and [Nurdiniah, Oktapriana, Meita, and Yanti \(2021\)](#) find that managerial ownership does not necessarily strengthen leverage and size relationships. Therefore, alignment and entrenchment may offset each other in the present sample.

The practical implication is that managerial ownership is not irrelevant to governance. The narrower conclusion is that, within these 67 observations, ownership proportions have no statistically supported partial association with persistence after meeting frequency, leverage, and size are held constant. Future research should estimate quadratic forms and ownership thresholds, separate executive from commissioner ownership, and interact managerial holdings with controlling shareholder concentration before recommending an ownership structure.

4.4.2 Audit Committee and Earnings Persistence

H_2 is not supported. One additional audit committee meeting corresponds to an estimated -0.035 change in persistence, but the bootstrap p -value of 0.361 and interval $[-0.110, 0.050]$ imply substantial uncertainty in this estimate. Non-significance may arise because the proxy measures quantity rather than the substance of oversight. Committees with the same number of meetings can differ in terms of expertise, independence, agenda quality, attendance, auditor communication, and follow-up.

This explanation is consistent with [Astuti et al. \(2021\)](#), [Bilal et al. \(2018\)](#), and [Kusnadi et al. \(2016\)](#), who emphasized independence, expertise, and committee characteristics in financial reporting quality. [Zgarni et al. \(2016\)](#), [Alzoubi \(2019\)](#), and [Hamdan \(2020\)](#) find benefits when committee effectiveness is measured more broadly. [Agustina et al. \(2021\)](#) reported a moderating role for the audit committee in the governance–earnings persistence relationship. The present result is not necessarily contradictory because prior studies assess committee quality or configuration, whereas this study only observes meeting frequency. Therefore, the finding points more directly to proxy limitations than to the ineffectiveness of audit committees.

Consequently, firms should avoid treating meeting counts as an end in themselves. Meetings require financially competent members, adequate analytical materials, direct auditor access, and mechanisms for tracking recommendations. [Al-Otaibi and Nashat \(2022\)](#) find that committee activity and experience matter for earnings quality, while [Abdullah et al. \(2024\)](#) demonstrate that committees work in combination with board and ownership structure. The present result is better viewed as a limitation of a single activity proxy than as a failure of the audit committee.

4.4.3 Leverage and Earnings Persistence

H_3 is supported and is the most stable of the findings. After controlling for the other predictors, a one-unit increase in the DER was associated with a 0.298 increase in the persistence score. Its standardized coefficient of 0.343 is the largest in absolute value, and the BCa interval remains positive, despite non-normal residuals. Within the observed leverage range ($0.094, 1.903$) the evidence is consistent with debt discipline, fixed obligations and creditor monitoring may encourage firms to preserve their earning capacity and provide verifiable reports.

This result agrees with [Nurdiniah et al. \(2021\)](#), who find a positive leverage effect, and extends the consumer non-cyclicals evidence in [Megarani et al. \(2025\)](#). Debt can create recurring checkpoints through payment reviews, facility renegotiation, and reporting requirements. Because the sampling criteria retain profitable firms, monitoring may dominate financial distress in this study's sample.

Evidence from [Safitri et al. \(2026\)](#) a study involving the second and third authors of this article also underscores the decision relevance of accounting earnings for market returns, although it does not directly test persistence.

A positive result should not be interpreted as a recommendation to increase debt without limits. [Ishak \(2024\)](#), [Lazzem and Jilani \(2018\)](#), [Fields et al. \(2018\)](#), and [Bui et al. \(2022\)](#) show that leverage and financing pressure may strengthen earnings management incentives. [Alzoubi \(2018\)](#) positions debt financing and audit quality as mechanisms that interact with reporting choices. The coefficient represents the average association within the observed DER range. At very high debt levels, financial distress, covenant violations, and reduced investment may weaken the earnings persistence. This comparison indicates that creditor discipline is context-dependent rather than a benefit that increases linearly without bounds.

Therefore, investors and creditors should assess leverage along with interest coverage, operating cash flow, debt maturities, and covenant terms. Firms can benefit from financing discipline without pursuing an aggressively debt structure. Future studies should test nonlinear specifications, separate short- and long-term debt, and include the costs of debt. This distinction is important because [An et al. \(2016\)](#) show that the capital structure–reporting relationship depends on institutions, while refinancing pressure differs from long-horizon creditor monitoring.

4.4.4 Firm Size and Earnings Persistence

H_4 is not supported. Firm size has $B=-0.058$, a bootstrap p -value of 0.073, and a BCa interval of $[-0.124, 0.003]$. The upper bound is close to zero and suggests a weak negative signal, but the evidence is still insufficient at the 5% level. The appropriate interpretation is not that large firms necessarily have lower persistence but that the data do not support the predicted positive association after controlling for other mechanisms.

Resources and diversification may stabilize larger firms, but operating complexity, supply chain exposure, and target pressure may offset those benefits. [Dang and Vu \(2022\)](#) find a positive size effect in a larger emerging market sample, whereas [Nurdiniah et al. \(2021\)](#) report no significant effect. [Annisa et al. \(2026\)](#) and [Sudarmanto et al. \(2026\)](#) place firm size in earnings quality or earnings management models for consumer staples, but their dependent variables and specifications differ from those used here. Therefore, the findings cannot be compared solely by the coefficient sign.

From a governance perspective, total assets are coarse proxies. Firms with similar assets may differ in terms of asset age, capital intensity, geographic diversification, market share, and efficiency. [Amyulianthy et al. \(2026\)](#) show that firm characteristics and governance should be jointly evaluated to explain earnings management. [Diri et al. \(2020\)](#) show that market concentration changes the governance–earnings management relationship, while [Deng et al. \(2017\)](#) connect earnings quality with corporate decisions and institutional characteristics. Future studies can supplement total assets with revenue, market capitalization, product concentration, and sales volatility.

4.4.5 Overall Meaning of the Model

The F -test at $p=0.050$ indicates that the four predictors jointly explain earnings persistence at the conventional threshold, but the adjusted R^2 of 0.085 shows that most of the variation remains unexplained. Operating cash flow, accrual magnitude, sales volatility, conservatism, profitability, competition, and audit quality are all relevant candidates. [Saputri and Sari \(2020\)](#) connect persistence with cash flows and accrual components, [Li \(2019\)](#) shows that real earnings management affects persistence and earnings informativeness, and [Nguyen et al. \(2023\)](#) document the predictive relevance of audit quality for persistence. [Dechow et al. \(2010\)](#) emphasize that earnings quality is shaped by both underlying performance and the accounting measurement system. Therefore, the results clarify the model's scope and future variable selection rather than merely providing significance decisions.

A low adjusted R^2 does not make the model uninformative; rather, it defines the permissible scope of the claims. The analysis identified leverage as a stable association but did not constitute a

comprehensive forecasting model. [Safitri et al. \(2026\)](#) and [Saleh et al. \(2020\)](#) illustrate how earnings information relates to market decisions and performance, preserving the practical value of improving the persistence models. Future analyses should combine earnings attributes, cash flow measures, and macroeconomic conditions with panel specifications that control for firm heterogeneity and within-firm dependence.

5. CONCLUSIONS

5.1 Conclusion

The tests show that leverage is the only variable with a positive and statistically significant association with earnings persistence. Managerial ownership, audit committee meeting frequency, and firm size had no significant partial associations. Jointly, the model lies exactly at the significance threshold of $p=0.050$ and explains only 8.5% of the variation, after adjustment. Therefore, overall model support is limited, and much of the earnings persistence remains attributable to factors outside the model.

Theoretically, the findings support the debt discipline mechanism of agency theory within the sample's leverage range, creditor monitoring and contractual obligations may strengthen performance and reporting consistency. This result does not imply that firms should mechanically increase their debt. The non-significant associations of managerial ownership, meeting frequency, and total assets show that quantitative indicators do not necessarily capture monitoring quality, control distribution, operating efficiency or business model resilience. Firms should emphasize disciplined debt management and substantive audit committee meetings. Investors and creditors should assess the DER together with cash flows, debt maturities, covenant headroom, and operating efficiency.

5.2 Research Limitations

First, the sample consists of only 14 firms and 67 observations in one sector, which limits external validity. Second, the five-year period includes a distinctive recovery phase and may not span the full economic cycle. Third, the pooled OLS does not explicitly control for firm fixed effects or cluster residuals within firms. Fourth, three outliers were removed in the source analysis, but results without their removal were unavailable for sensitivity comparison. Fifth, the available persistence scores were described as derived from an AR (1) model, while the detailed raw inputs and score-construction syntax were not included in the analysis materials, therefore, the measurement could not be independently reconstructed. Sixth, the low adjusted R^2 indicates that important determinants are omitted.

5.3 Suggestions and Directions for Future Research

Future research should extend the sectors and periods, apply panel models with firm and year effects, and report clustered standard errors. Persistence should be reconstructed directly from consistently scaled earnings and compared with alternative measures. Operating cash flow, accrual magnitude, sales volatility, profitability, accounting conservatism, audit quality, and macroeconomic conditions can be used to broaden the model. Nonlinear leverage and ownership terms are also needed to distinguish creditor-monitoring benefits from distress and alignment from the managerial entrenchment.

For firms, the evidence favors disciplined and transparent debt management over mechanical increases in leverage. Audit committees should prioritize agenda quality, expertise, information access, and documented follow-ups, rather than meeting counts alone. Investors and creditors may treat the DER as a monitoring signal, but it should be combined with cash flows, maturity profiles, covenant headroom, and operating efficiency. Managerial ownership and asset scale should not be used in isolation to infer sustainable earnings.

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AUTHOR CONTRIBUTIONS

RKP contributed to the conceptualization, data collection, data curation, formal analysis, and preparation of the original draft. R, as the corresponding author, contributed to the conceptualization, supervision, validation, and critical review of the manuscript. EY contributed to supervision, methodological validation, and critical review. All authors have read and approved the final version of the manuscript.

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