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Earnings Management Indications in Late Financial Reporting: Evidence from Consumer Cyclicals Sector Companies on the Indonesia Stock Exchange

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Abstract

Purpose: This study aims to investigate whether earnings management, as measured by the Beneish M-Score, differs significantly between on-time and late-reporting consumer cyclical sector companies listed on the Indonesia Stock Exchange (IDX).

Research Methodology: A quantitative comparative design was employed using 76 firm-year observations (38 on-time and 38 late reporters) from 2020 to 2024. Timeliness was classified based on the *Otoritas Jasa Keuangan* (OJK) regulatory deadline, and earnings management was measured using the eight-component Beneish M-score. The Mann-Whitney U test was used for hypothesis testing, and robustness was assessed via logarithmic data transformation.

Results: Late reporters had significantly higher aggregate M-scores ($p < 0.05$), with 86.84% classified as likely manipulators, compared to 63.16% of on-time reporters. Descriptive trends showed higher (Days Sales Receivables Index) DSRI, (Gross Margin Index) GMI, (Total Accruals to Total Assets) TATA, and (Leverage Index) LVGI in late reporters, although no significant differences were observed in the individual components. TATA became significant after logarithmic transformation, indicating its sensitivity to distributional adjustments.

Conclusions: The findings suggest a strong association between delayed reporting and earnings-manipulation risk. Regulators, auditors, and investors should use the Beneish M-Score as an early warning indicator of potential earnings management in companies that report late.

Limitations: The sample is limited to the consumer cyclicals sector, and the Beneish M-score captures only accrual-based earnings management. The binary classification of reporting timeliness may overlook the varying degrees of delay.

Contributions: This study provides new empirical evidence on the relationship between financial reporting timeliness and earnings quality in Indonesia, offering insights for market practitioners and regulators.

Keywords: *Beneish M-Score, Consumer Cyclicals, Earnings Management, Financial Reporting Timeliness, Indonesian Stock Exchange*

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1. Introduction

Financial reports are the primary information channel through which public companies communicate their financial condition and operating performance to investors, creditors, regulators, and other market

participants. Therefore, the quality and timeliness of financial reporting are foundational to the informational efficiency of capital markets. Indonesian regulatory authorities, led by the OJK, mandate that all listed companies submit their annual financial reports no later than four months after the close of the fiscal year the April 30 deadline for companies with December year-ends under the OJK Regulation No. 29/POJK.04/2016. Non-compliance carries graduated sanctions ranging from written warnings to trading suspensions, as stipulated by the Indonesia Stock Exchange (IDX) under KEP-307/BEJ/07-2004. Despite these regulatory safeguards, systematic reporting delays persist in Indonesian listed companies.

An analysis of IDX data covering 2020–2024 reveals that the consumer cyclicals sector comprising discretionary goods and services industries such as retail, automotive, textiles, fashion, and entertainment exhibits the highest cumulative incidence of reporting delays among all 12 IDX-Industrial Classification (IDX-IC) sectors, recording 87 late-reporting cases over the five-year period. This markedly exceeds the number of cases in Property and Real Estate (83 cases), energy (57 cases), and industrials (49 cases). The elevated delay incidence in this sector is not incidental; it reflects the distinctive operational complexity of consumer cyclical companies, including high transaction volumes, extended supply chains, omnichannel business models, pronounced sensitivity to macroeconomic cycles and consumer spending behavior, and increasing competitive and technological pressures, such as electric vehicle adoption and digital retail transformation (CRIF, 2025; Petropoulos et al., 2026). These characteristics create conditions in which the preparation and audit of financial statements require significantly greater time and procedural rigor.

The academic and practitioner literature identifies a theoretically grounded relationship between financial reporting timeliness and earnings management. Under the Positive Accounting Theory (PAT), management rationally selects accounting policies to maximize economic utility through contractual mechanisms: the bonus plan, debt covenant, and political cost hypotheses (Watts & Zimmerman, 1990). Opportunistic or complex accounting choices, such as aggressive accrual management and revenue recognition adjustments, increase the verification burden on auditors, extend audit completion timelines, and potentially contribute to delays in reporting (Diab & Hamdy, 2022; Pratiwi, Wibowo, & Mubarok, 2025). Stakeholder Theory further suggests that when financial performance risks generating negative market perceptions, management may strategically delay disclosure to manage stakeholder expectations, a behavior consistent with the well-documented tendency to accelerate good news and defer bad news reporting (Çinko, Merter, Balcıoğlu, Çerez, & Alataş, 2025).

Despite the theoretical coherence of the earnings management–timeliness nexus, empirical findings have been inconsistent. Aryani (2020) and Flayyih and Khiari (2022) found that companies with higher earnings management indicators tend to publish financial reports earlier, possibly to preemptively shape market perceptions. In contrast, Diab and Hamdy (2022), Kim, Pierce, and Yeung (2021), and Biehl, Bleibtreu, and Stefani (2024) document that higher discretionary accruals are associated with longer audit report lags, supporting the complexity delay hypothesis. These contradictory findings indicate that the relationship between earnings management and reporting timeliness is not linear and may depend on the direction, form, and magnitude of the earnings management activity.

A critical methodological gap in the prior literature is the predominant reliance on aggregate discretionary accrual models, particularly the Jones (1991) and Modified Jones Fiechter and Wallmeier (2026) models, which treat earnings management as a single composite construct. This limits diagnostic precision by obscuring the distinct financial distortion mechanisms captured by individual earnings-management indicators. The Beneish M-Score Beneish (1999), which disaggregates earnings management into eight ratio-based components Days Sales in Receivables Index (DSRI), Gross Margin Index (GMI), Asset Quality Index (AQI), Sales Growth Index (SGI), Depreciation Index (DEPI), Sales, General and Administrative Expenses Index (SGAI), Total Accruals to Total Assets (TATA), and Leverage Index (LVGI) offers a more granular and operationally grounded diagnostic framework for detecting earnings manipulation. Hugo (2019), Sylwestrzak (2022), and Ozkan and Alfarhan (2025) demonstrate that individual Beneish components possess differential discriminatory power and that their predictive contribution varies by industry and institutional environment.

This study addresses the identified research gap by applying the full Beneish M-Score framework, both aggregate and component-level, in a comparative design that classifies IDX-listed consumer cyclicals companies as on-time or late reporters and tests whether earnings management indications differ systematically between the groups. This study makes three contributions to Indonesian accounting literature (Suwardi & Riyadi, 2024). First, it provides direct empirical evidence on whether late reporting in the consumer cyclicals sector is associated with higher earnings management risk, measured by a standardized financial ratio model rather than discretionary accrual estimation. Second, it advances the granularity of earnings management analysis by examining each of the eight Beneish components individually, enabling the identification of which financial distortion dimensions receivables management, margin deterioration, asset quality, accrual intensity, or leverage pressure most differentiate late from on-time reporters. Third, it adopts a grouping-based comparative methodology that is underutilized in Indonesian financial reporting timeliness research, providing a replicable analytical template for sector-specific earnings quality.

The remainder of this article is structured as follows. Section 2 reviews the relevant theoretical and empirical literature. Section 3 presents the research methodology. Section 4 reports the empirical results. Section 5 discusses the findings in the context of theory and prior evidence. Finally, Section 6 provides conclusions, limitations, and policy recommendations.

2. Literature Review

2.1 Theoretical Framework

Positive Accounting Theory (PAT), systematically developed by Watts and Zimmerman (1990), posits that managers are rational economic actors who select accounting policies to maximize their personal utility, subject to contractual, regulatory, and political constraints. Three core hypotheses govern these choices. First, the bonus plan hypothesis states that managers compensated through earnings-based schemes select income-increasing accounting policies to maximize their current-period bonuses. The debt covenant hypothesis predicts that firms near a violation of debt agreement financial ratios will adopt accounting choices that shift future earnings to the current period to maintain compliance. The political cost hypothesis holds that large, highly profitable firms select income-decreasing policies to reduce regulatory scrutiny and public pressure. PAT connects to financial reporting timeliness through the mechanism of audit complexity: complex, aggressive, or unusual accounting choices particularly large accrual adjustments, revenue recognition changes, or significant estimation revisions increase the auditor's verification burden and extend the audit timeline, thereby contributing to publication delays (Li, Yan, & Zhou, 2026).

Stakeholder Theory Freeman (2010) provides a complementary perspective. Under this framework, financial reports function as the primary accountability and legitimation instruments through which management communicates with investors, creditors, employees, regulators, and civil society. When financial performance is expected to disappoint stakeholder expectations, management faces an incentive to engage in earnings management to present a more favorable picture and may simultaneously delay disclosure to reduce negative market reactions. Biehl et al. (2024) empirically demonstrate that delayed financial reporting increases information asymmetry and the cost of capital, intensifying the reputational and governance costs of late publication. Miles and Miles (2019) documents that the composition and relative power of dominant stakeholder groups influence management's accounting policy choices, including the timing of earnings disclosures.

2.2 Earnings Management: Mechanisms and Measurement

Alfadhael and Jarraya (2021) defines earnings management as the use of managerial discretion in financial reporting and real economic decisions to influence reported earnings to achieve specific targets. The practice operates along a spectrum from efficient where management uses accounting flexibility to credibly communicate private information to the market to opportunistic, where accounting choices serve managerial self-interest at the expense of shareholders and other stakeholders. Two primary mechanisms have been identified in the literature. Accrual-based earnings management manipulates reported earnings through the discretionary application of accounting estimates, including

bad debt provisions, depreciation methods, amortization schedules, revenue recognition timing, and inventory valuation without directly affecting cash flows. In contrast, real earnings management involves genuine operational decisions, such as accelerating revenue recognition through channel stuffing, reducing discretionary expenditures on research and development or advertising, overproducing to lower unit fixed costs, and timing asset disposals. These decisions directly affect cash flow and have long-term economic consequences.

Detection models for accrual-based earnings management include the Rigamonti, Greco, Pierotti, and Capocchi (2024), Aljifri and Elrazaz (2024), Jones (1991), Modified Jones Dechow, Sloan, and Sweeney (1995), and Fiechter and Wallmeier (2026) accrual quality models. These models decompose total accruals into non-discretionary components attributable to legitimate economic conditions and discretionary components potentially attributable to management interventions. While widely used, these models are subject to specification errors, reversal effects, and difficulty in distinguishing naturally occurring from manipulated accruals in cross-sectional and panel settings.

The Beneish M-Score Beneish (1999) offers an alternative and complementary detection approach that combines accrual-based and operational indicators to detect earnings manipulation. The model was constructed using a sample of manipulative and non-manipulative US companies and achieved an identification accuracy of approximately 76 %. The composite M-score is computed as follows:

$$M = -4.84 + 0.920(DSRI) + 0.528(GMI) + 0.404(AQI) + 0.892(SGI) + 0.115(DEPI) - 0.172(SGAI) + 4.679(TATA) - 0.327(LVGI)$$

Companies with M-scores ≥ -1.78 are classified as likely manipulators, and those below this threshold are classified as non-manipulators. The eight components represent distinct financial distortion dimensions: DSRI detects aggressive revenue recognition by identifying disproportionate receivables growth. GMI signals profitability deterioration, which creates incentives for manipulation. AQI identifies asset quality deterioration through excessive capitalization. SGI captures sales growth pressure associated with income-inflating incentives. DEPI detects manipulation of depreciation policies. SGAI identifies anomalous expense patterns. TATA measures the magnitude of accrual-based earnings adjustments relative to total assets. Finally, LVGI captures increasing leverage pressure, which may trigger manipulation incentives related to debt covenants (Beneish, 1999).

2.3 Financial Reporting Timeliness and Earnings Management

The relationship between earnings management and financial reporting timeliness has been examined from multiple perspectives in the international literature. Kim et al. (2021), analyzing US firms from 1989 to 2017, find that companies with higher discretionary accruals are more likely to announce earnings late, particularly when announcing bad news. Their evidence supports the hypothesis that accrual management complexity extends the audit timelines and contributes to reporting delays. Biehl et al. (2024) provide complementary evidence showing that higher discretionary accruals significantly increase audit report lag, with the effect moderated by the presence of accounting expertise on the audit committee in the following year. Bryan and Mason (2020) demonstrate that earnings smoothing a form of accrual management prolongs audit completion through the additional effort required to assess the appropriateness and consistency of income-smoothing estimates. Diab and Hamdy (2022) find that firms with high discretionary accruals experience significantly longer financial reporting lags in the Egyptian market.

In the context of Beneish M-Score applications, Khatun, Ghosh, and Kabir (2022) demonstrate that DSRI, AQI, GMI, DEPI, and TATA are the most discriminating components in distinguishing likely manipulators from non-manipulators in Bangladesh's banking sector, establishing the differential diagnostic value of individual Beneish ratios. Narsa, Afifa, and Wardhaningrum (2023) confirm that the DSRI, AQI, and TATA are significantly higher in Indonesian manufacturing companies with stronger earnings management indications. Ozkan and Alfarhan (2025) provide cross-country evidence from G7 nations showing that Beneish M-Score classifications distinguish company behavior across financial reporting dimensions, while noting that discriminatory power varies by national institutional

environment. Sylwestrzak (2022) and Marais, Vermaak, and Shewell (2023) emphasize that not all Beneish components exhibit uniform discriminatory power and that non-manipulative companies can display elevated component values (the false-positive problem), reinforcing the need for contextual, sector-specific interpretation.

In the Indonesian context, Aryani (2020) found that higher earnings management is associated with faster reporting, which is interpreted as a preemptive strategy to signal positive financial conditions. Inawati and Azizah (2024) examine the timeliness determinants in Indonesian consumer cyclical firms but do not explicitly analyze earnings management differentials between reporting groups. Thus, the literature reveals a significant gap: no prior Indonesian study has applied the complete Beneish M-Score framework in a comparative analysis of on-time versus late reporters within a single high-delay sector, systematically testing both aggregate and component-level differences.

2.4 Research Hypotheses

Based on the theoretical arguments from PAT and Stakeholder Theory and drawing on the empirical evidence reviewed above, nine directional hypotheses are proposed. First, consistent with Kim et al. (2021), Biehl et al. (2024) , and Narsa et al. (2023), companies that publish financial reports late are expected to exhibit higher aggregate Beneish M-Score values, indicating greater earnings management risk (H_1). For individual components: H_2 posits that late reporters exhibit higher DSRI, reflecting more aggressive revenue recognition; H_3 posits lower GMI (worse gross margin deterioration) in late reporters, reflecting greater operational pressure; H_4 posits higher AQI in late reporters, indicating greater asset quality deterioration; H_5 posits higher SGI in late reporters, reflecting greater sales growth pressure; H_6 posits lower DEPI in late reporters, indicating less depreciation manipulation; H_7 posits lower SGAI in late reporters; H_8 posits higher TATA, reflecting greater accrual intensity; and H_9 posits higher LVGI, reflecting greater leverage pressure. The directional predictions for H_3 and H_6 follow the original Beneish (1999) theoretical logic, in which a lower GMI and lower DEPI indicate greater manipulation risk.

3. Methodology

3.1 Research Design

This study employs a quantitative comparative research design using secondary data from the audited financial statements of IDX-listed consumer cyclical sector companies. The comparative design is chosen to test the central research proposition that late-reporting companies display systematically different earnings management characteristics compared to on-time reporters. This design is consistent with Khatun et al. (2022) and Ozkan and Alfarhan (2025), who use grouping-based comparisons to evaluate differential Beneish M-Score behavior, and represents a methodological approach that is under-utilized in Indonesian financial reporting timeliness literature.

3.2 Sample and Data

The study population comprises all consumer cyclical sector companies listed on the IDX between 2020 and 2024. Consumer cyclicals were selected because they recorded the highest cumulative reporting delay incidence (87 cases) across all IDX-IC sectors during this period, providing the most analytically relevant context for studying the earnings management–timeliness relationship. Data were collected from the companies' annual financial reports, IDX disclosure announcements, and OJK regulatory records.

A purposive sampling approach was applied with three criteria: the company must be listed in the consumer cyclicals sector throughout the observation period; annual financial statements must be publicly available for the relevant reporting years; and sufficient financial data must exist for the calculation of all eight Beneish M-Score components. Companies that experienced mergers, acquisitions, delistings, or IPO transitions during the observation window were excluded. The final matched sample comprised 76 firm-year observations: 38 on-time reporters and 38 late reporters, matched by the year of reporting to control for macroeconomic period effects. Financial reporting timeliness was coded as a binary variable: on-time (financial report published on or before April 30 following the fiscal year-end) versus late (published after April 30), consistent with POJK No.

29/POJK.04/2016 and subsequent POJK No. 14/POJK.04/2022 (Mappadang, Wijaya, & Mappadang, 2022).

3.3 Variables and Measurement

The dependent classification variable is financial reporting timeliness (binary: on time = 0; late = 1). The earnings management measurement variables comprise the Beneish M-Score aggregate and its eight component ratios, as specified by (Beneish, 1999). The aggregate M-score is computed using the following formula:

$$M = -4.84 + 0.920(DSRI) + 0.528(GMI) + 0.404(AQI) + 0.892(SGI) + 0.115(DEPI) - 0.172(SGAI) + 4.679(TATA) - 0.327(LVGI) \quad (1)$$

Companies with $M \geq -1.78$ are classified as manipulators. The individual components are measured as follows: DSRI = (Receivables_t / Sales_t) ÷ (Receivables_t−1 / Sales_t−1); GMI = [(Sales_t−1 − COGS_t−1) / Sales_t−1] ÷ [(Sales_t − COGS_t) / Sales_t]; AQI = [1 − (Current Assets_t + PPE_t) / Total Assets_t] ÷ [1 − (Current Assets_t−1 + PPE_t−1) / Total Assets_t−1]; SGI = Sales_t / Sales_t−1; DEPI = [Depreciation_t−1 / (Depreciation_t−1 + PPE_t−1)] ÷ [Depreciation_t / (Depreciation_t + PPE_t)]; SGAI = (SGA_t / Sales_t) ÷ (SGA_t−1 / Sales_t−1); TATA = (ΔCurrent Assets − ΔCash − ΔCurrent Liabilities − ΔCurrent Maturities of LTD − ΔIncome Tax Payable − Depreciation) / Total Assets; and LVGI = [(Total LTD_t + Current Liabilities_t) / Total Assets_t] ÷ [(Total LTD_t−1 + Current Liabilities_t−1) / Total Assets_t−1].

3.4 Statistical Analysis

Normality was tested using the Shapiro-Wilk test. The results indicated that neither the aggregate M-Score nor the individual Beneish component variables were normally distributed in either group (all $p < 0.05$), precluding the use of independent samples t-tests. Therefore, the Mann-Whitney U test was employed as the primary non-parametric inference procedure for all nine hypotheses, following (Putra, Junus, & Maulana, 2026). The Mann-Whitney U test was used to evaluate whether the mean ranks of the two groups (on-time and late reporters) differed significantly, with a two-tailed significance threshold of $p < 0.05$. For directional hypotheses (H_2–H_9), one-tailed interpretations were used. Descriptive statistics, including the mean, standard deviation, minimum, maximum, and mean rank, were computed for each variable across both groups. Categorical distribution analysis was conducted for each Beneish component using standard thresholds (DSRI, GMI, AQI, SGI, DEPI, SGAI, and LVGI > 1 vs. < 1; TATA > 0 vs. < 0). Robustness testing was performed by applying logarithmic transformation to all positive Beneish variables after data shifting to eliminate non-positive values, following the standard practice for non-normal financial ratio data (Ghozali, 2021).

4. Results and Discussions

4.1 Result

4.1.1 Descriptive Statistics

Table 1 presents the descriptive statistics for the aggregate Beneish M-score and all eight components across both groups. Late-reporting companies exhibit a mean M-Score of −0.6601 (SD = 2.414), which is substantially higher than the mean of −1.1936 (SD = 1.892) for on-time reporters. Both group means fall above the −1.78 likely manipulator threshold, although the late reporters are positioned significantly closer to that boundary. For on-time reporters, 24 of 38 observations (63.16%) are classified as likely manipulators (M-Score ≥ −1.78), compared to 33 of 38 (86.84%) in the late-reporting group a 23.68 pp differential that represents a material difference in the proportion of companies exhibiting financial manipulation risk profiles.

Table 1. Descriptive statistics: beneish m-score aggregate and components by group

Variables	On-Time (n=38) Mean	Late (n=38) Mean	On-Time Mean Rank	Late Mean Rank
M-Score (Aggregate)	−1.1936	−0.6601	33.50	43.50

DSRI	1.0111	1.1583	36.22	40.78
GMI	0.9706	1.0785	35.09	41.91
AQI	1.1382	0.9902	42.01	34.99
SGI	1.0346	1.0551	38.62	38.38
DEPI	0.9803	0.9837	36.80	40.20
SGAI	0.9546	0.8879	40.99	36.01
TATA	0.2561	0.3422	34.46	42.54
LVGI	0.9963	1.0949	36.28	40.72

Note: Mean ranks were derived from the Mann-Whitney U test. M-score threshold: ≥ −1.78 = likely manipulator.

4.1.2 Categorical Distribution Analysis

Table 2 summarizes the categorical distribution of each Beneish component ratio across the groups. For DSRI, 57.89% of late reporters exhibit DSRI > 1 versus 44.74% of on-time reporters, indicating a higher prevalence of disproportionate receivables growth in the late-reporting group. GMI > 1 is more prevalent among late reporters (65.79%) than on-time reporters (50.00%), suggesting greater gross margin deterioration among late reporters. AQI > 1 is more common in on-time reporters (57.89%) than in late reporters (47.37%), a counterintuitive finding indicating greater asset quality concerns in the on-time group. The SGI > 1 is marginally higher in late reporters (68.42%) than on-time (57.89%). The DEPI distributions were identical across groups (63.16% < 1 in both). An SGAI > 1 was slightly more prevalent in on-time reporters (44.74%) than in late reporters (36.84%). TATA > 0 is higher in late reporters (92.11%) than in on-time reporters (86.84%). LVGI > 1 is marginally higher in late reporters (55.26%) compared to on-time reporters (52.63%).

Table 2. Categorical distribution of beneish components (% of observations)

Components	**Threshold**	**On-Time > Threshold (%)**	**Late > Threshold (%)**	**Difference (pp)**
DSRI	> 1	44.74	57.89	+13.15
GMI	> 1	50.00	65.79	+15.79
AQI	> 1	57.89	47.37	−10.52
SGI	> 1	57.89	68.42	+10.53
DEPI	> 1	36.84	36.84	0.00
SGAI	> 1	44.74	36.84	−7.90
TATA	> 0	86.84	92.11	+5.27
LVGI	> 1	52.63	55.26	+2.63

4.1.3 Hypotheses Testing Results

Table 3 presents the results of the Mann-Whitney U test for all nine hypotheses. Hypothesis H_1 that late reporters exhibit higher aggregate Beneish M-Score values is supported ($Z = -2.021$, $p = 0.043$). This is the only hypothesis that achieved statistical significance at the conventional 0.05 threshold. Hypotheses H_2 through H9, which test individual Beneish components, are all rejected at $p < 0.05$. Descriptive directional consistency with theoretical predictions was observed for H_2 (DSRI: higher in late reporters), H_3 (GMI: higher in late reporters, indicating greater margin deterioration), H5 (SGI: marginally higher in late reporters), H_8 (TATA: higher in late reporters), and H_9 (LVGI: marginally higher in late reporters). For H_4 (AQI), the observed direction is contrary to the hypothesis: on-time reporters exhibited a higher mean-rank AQI, a finding discussed in Section 5.

Table 3. Mann-whitney u test results: earnings management indicators by reporting timeliness group

Hypotheses	**Variables**	**Predicted Direction**	**Z Statistic**	**p-value (2-tailed)**	**Result**
H_1	M-Score Aggregate	Late > On-time	−2.021	0.043*	Supported
H_2	DSRI	Late > On-time	−0.921	0.357	Rejected

H_3	GMI	Late > On-time (GMI↑)	−1.375	0.169	Rejected
H_4	AQI	Late > On-time	+1.448	0.148	Rejected
H_5	SGI	Late > On-time	−0.048	0.962	Rejected
H_6	DEPI	Late < On-time	−0.685	0.493	Rejected
H_7	SGAI	Late < On-time	+0.990	0.322	Rejected
H_8	TATA	Late > On-time	−1.616	0.106	Rejected
H_9	LVGI	Late > On-time	−0.879	0.380	Rejected

Note: * Significant at $p < 0.05$ (two-tailed). Z statistics from the Mann-Whitney U test.

4.1.4 Robustness Testing

Logarithmic transformation was applied to all Beneish variables following data shifting to ensure positive values before transformation. The robustness test results confirm the stability and strengthening of the aggregate M-Score finding: the significance level improved ($p = 0.031$) with a stronger Z statistic, consistent with more normally distributed data after transformation. Of the eight individual components, only TATA achieved statistical significance after logarithmic transformation ($p = 0.042$), which was attributable to the resolution of extreme values and negative observations through data shifting and log transformation. This change in TATA's significance status indicates latent accrual-based earnings management differences that are sensitive to distributional characteristics, particularly the presence of extreme negative TATA values in both groups that inflate within-group variance in the untransformed analysis. The robustness of the aggregate finding and TATA sensitivity result together reinforce the primary conclusion that late-reporting companies exhibit meaningfully elevated earnings management risk.

4.2 Discussion

4.2.1 Aggregate Beneish M-Score: Late Reporters as Higher-Risk Earnings Management Companies

The central finding of this study that late-reporting consumer cyclicals companies exhibit significantly higher aggregate Beneish M-Score values than on-time reporters ($p = 0.043$) is consistent with the theoretical prediction derived from both PAT and Stakeholder Theory, and aligns with the empirical findings of (Biehl et al., 2024; Bryan & Mason, 2020; Kim et al., 2021; Narsa et al., 2023). The 23.68 pp gap in likely manipulator classification rates (86.84% for late reporters versus 63.16% for on-time reporters) is substantively meaningful: it indicates that the probability of observing a company with earnings manipulation risk characteristics is substantially higher in the late-reporting group, regardless of the statistical significance threshold.

Under PAT, this finding is interpreted as evidence that management's selection of complex, aggressive, or unusual accounting policies reflected in elevated M-scores increases auditor verification requirements, extends audit completion timelines, and ultimately contributes to publication delays. Scott (2015) and Diab and Hamdy (2022) emphasize that accrual intensity and discretionary judgment in revenue recognition and asset valuation increase the scope and duration of audit testing, particularly when auditors exercise heightened professional skepticism in response to risk signals. Consistent with the debt covenant hypothesis, companies with elevated leverage and deteriorating margins characteristics captured by the LVGI and GMI components face greater incentives for income-increasing accrual management, generating accounting complexity that prolongs audit processes.

From the Stakeholder Theory perspective, elevated M-Scores in late reporters may reflect an attempt to manage stakeholders' perceptions of financial performance before publication. Companies facing profitability pressure or earnings quality concerns may engage in more extensive pre-publication earnings adjustments, increasing the time required for both the preparation and audit of financial statements. Strategic delay framing, consistent with the bad news delay hypothesis, suggests that late publication is partly endogenous to the presence of financial information that management considers strategically sensitive.

Notably, even on-time reporters exhibit a majority (63.16%) classified as likely manipulators, indicating that earnings management risk is pervasive in the consumer cyclicals sector, regardless of reporting timeliness. This finding, consistent with Marais et al. (2023) and Tömöri, Erdey, and Szekeres (2025), underscores that the Beneish M-score is a probabilistic indicator of earnings manipulation risk rather than a definitive classification tool, and that timeliness alone cannot serve as a comprehensive proxy for earnings quality. This implies that regulators and investors should monitor earnings management indicators across all reporting groups, not only late reporters.

4.2.2 Non-Significance of Individual Components: Interpretation and Sectoral Context

The absence of statistically significant between-group differences in all eight Beneish components requires careful theoretical and methodological interpretation. Several complementary explanations have been proposed. First, as Sylwestrzak (2022), Marais et al. (2023), and Tömöri et al. (2025)document, the discriminatory power of individual Beneish components varies by industry context, sample composition, and institutional environment. The consumer cyclicals sector in Indonesia presents specific operational characteristics: high receivables-to-sales ratios (reflecting credit-based retail sales), significant depreciation on automotive and retail assets, and high TATA values driven by the working capital intensity. These characteristics may simultaneously elevate component values in both groups, thereby reducing the between-group discrimination capacity.

Second, the aggregate M-Score's significance, despite component-level non-significance, reflects a combinatorial logic: the composite score captures the joint occurrence of multiple moderate distortion signals that individually fall short of statistical thresholds but together constitute meaningful patterns. This property of the Beneish M-Score is theoretically coherent because earnings management is rarely confined to a single accounting account; rather, it manifests as a coordinated pattern across receivables, margins, accruals, and leverage that the aggregate score is specifically designed to detect (Verrel & Setyawan, 2025).

Third, the finding that AQI is higher in on-time reporters contrary to H_4 reflects a counterintuitive but empirically documented pattern: on-time reporters in the consumer cyclicals sector may invest more aggressively in capitalized assets (brand development, retail expansion, digital platform infrastructure), generating higher AQI values not through earnings management but through legitimate business investment cycles. This interpretation is consistent with the false-positive problem documented by Marais et al. (2023), which highlights that high AQI values do not unambiguously indicate manipulation.

The TATA robustness finding, where the component becomes significant after logarithmic transformation, is theoretically significant. TATA directly measures the accrual component of earnings relative to total assets and has consistently been identified as the most powerful individual Beneish discriminator in the literature (Khatun et al., 2022; Narsa et al., 2023). The sensitivity of TATA to distributional adjustment suggests that accrual-based earnings management differences exist between groups but are partially obscured in the untransformed data by extreme values and a non-normal distribution. This finding reinforces the conclusion that late-reporting companies exhibit higher accrual intensity and that the relationship between accrual management and reporting delay is real, but complex and non-linear.

4.2.3 Implications for Earnings Management Theory and Financial Reporting Research

The findings of this study contribute to a broader theoretical understanding of earnings management and reporting timeliness in several ways. First, the confirmation of H_1 provides direct evidence from the Indonesian capital market that reporting delays are associated with elevated earnings manipulation risk, extending the findings of Kim et al. (2021) and Biehl et al. (2024) from developed market contexts to the Indonesian market. Second, identifying the consumer cyclicals sector as a high-risk environment for the earnings management–timeliness relationship has implications for audit risk assessment. Auditors serving this sector should incorporate reporting timeliness patterns into their fraud risk evaluation procedures, particularly when reviewing accrual-intensive accounts. Third, the TATA robustness result adds nuance to the literature by demonstrating that accrual-based earnings

management differences between reporting groups may be systematically under-detected when standard distributional assumptions are violated, a finding with implications for the choice of statistical methods in cross-sectional earnings quality research.

This study also contributes to the methodological literature by demonstrating the feasibility and value of grouping-based comparative Beneish M-Score analysis as an alternative to regression-based timeliness models. The grouping approach is particularly suitable when the research objective is to characterize the financial risk profile of a discrete behavioral phenomenon late reporting rather than estimating its continuous determinants. Future research could extend this framework by incorporating governance variables (board independence, audit committee quality, and auditor type) as moderators of the earnings management–timeliness relationship.

5. Conclusions

5.1 Conclusion

This study provides compelling empirical evidence that companies in the consumer cyclical sector listed on the IDX that report financial results late are more likely to engage in earnings manipulation, as indicated by significantly higher aggregate Beneish M-scores than on-time reporters ($p = 0.043$). In particular, 86.84% of late reporters were classified as manipulators, compared to only 63.16% of on-time reporters. Despite no statistically significant differences across the eight Beneish component ratios, the patterns in the TATA ratio suggest that accrual-based earnings management differences may be latent and sensitive to data distribution. The findings support both Positive Accounting Theory (PAT), which connects complex accounting decisions to reporting delays, and Stakeholder Theory, which links earnings management incentives to the timing of strategic disclosures. The practical implications emphasize the need for regulators, institutional investors, auditors, and corporate management to closely monitor reporting timeliness as an early indicator of earnings quality and the strategic benefits of transparent, timely financial reporting.

5.2 Research Limitations

While this study provides valuable insights, it is subject to several limitations that must be considered when interpreting its findings. First, the sample is confined to companies within the consumer cyclical sector listed on the IDX over a five-year period, which limits the generalizability of the results to other sectors and markets. Furthermore, the accrual-based Beneish M-Score model does not capture real earnings management through operational activities. Additionally, the binary classification of reporting timeliness (on-time vs. late) does not distinguish between marginally late reporters and those with significant delays, who may exhibit different earnings management behaviors. The statistical power of the analysis is also constrained by the relatively small, matched sample of 76 firm-year observations, which may limit the ability to detect differences at the component level.

5.3 Suggestions and Directions for Future Research

Given the limitations of this study, future research should extend the analysis to several key areas. Longitudinal panel studies utilizing fixed-effects regression models would allow for better control of company-specific heterogeneity and provide more precise estimates of the relationship between earnings management and timeliness. Moreover, cross-sectoral studies comparing the consumer cyclical sector with other high-delay sectors, such as energy and property, would help determine whether the findings are sector-specific or generalizable to other industries. Incorporating real earnings management measures, such as abnormal cash flows, production costs, and discretionary expenses, would offer a more comprehensive understanding of the earnings management practices of late reporters. Additionally, future studies should consider moderating variables such as audit committee quality, external auditor characteristics (e.g., Big Four vs. non-Big Four), ownership structure, and corporate governance quality to identify the governance mechanisms that influence the earnings management–timeliness relationship. Finally, developing and validating an Indonesian-specific Beneish M-score model with recalibrated component coefficients and thresholds would significantly improve the diagnostic accuracy of future studies in the Indonesian financial reporting context.

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Author Contributions
IE conceptualized the study, developed the research design, and was responsible for the data collection and analysis. She also wrote the original draft of the manuscript. TJP contributed to the research methodology, provided critical feedback on the analysis, and assisted in the writing and revision of the manuscript. CPTT played a key role in the literature review, contributed to the interpretation of the results, and reviewed and edited the final manuscript. All authors reviewed and approved the final version of the manuscript for publication.

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