CEO Turnover Frequency and Earnings Management: Evidence from Revenue Classification Shifting

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Abstract

The evidence in the literature and practice suggests that managers attempt to manage earnings. Most of the prior studies focus on accrual and real earnings management in CEO turnover. However, another technique of earnings management, classification shifting, tends to be ignored, although it is more likely to be implemented during CEO turnover periods. This study aims to examine the CEO turnover frequency and revenue classification shifting. The study manually collects data on CEO turnover from 2012 to 2019 and employs logistic regression to analyse 3,129 firm-year observations to test the proposed hypothesis. System GMM and firm-fixed effects regressions are also conducted as sensitivity checks. The findings indicate that CEO turnover frequency induces revenue classification shifting. However, the results are sensitive to alternative key variable specifications, suggesting that the findings remain robust only when suspect firms are identified. This study contributes to the CEO turnover and earnings management literature by introducing revenue classification shifting as an alternative earnings management mechanism in CEO turnover events. It also provides practical insights for boards of commissioners and other stakeholders in evaluating CEO performance, particularly when operating revenue and operating profit serve as key performance indicators, given the potential for revenue classification shifting to inflate these measures.

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Introduction

Literature suggests that market participants use earnings to assess firm performance (e.g., Barth et al., 2022). Thus, many CEOs have tried to manage earnings in both appropriate and inappropriate ways. The latter can be achieved through earnings management using the manipulation of accruals, real activities, or item misclassification in income statements (e.g., Healy, 1985; McVay, 2006; Roychowdhury, 2006).

Literature suggests that earnings management is more prevalent if there are incentives to do so (Agustina & Anita, 2022). Positive accounting theory argues that incentives are to maximise bonuses, to avoid the breach of the debt contract, and to minimise the intervention from the government (Watts & Zimmerman, 1990). Scholars advance this literature and show that chief executive officer (CEO) turnover events may be an incentive to engage in accrual and real earnings management (Ali & Zhang, 2015; Li & Wang, 2024; Park, 2023; Vernando & Rakhman, 2018).

Although the literature on earnings management in CEO turnover has emerged over three decades (e.g., Murphy & Zimmerman, 1993), recent studies continue to advance it in different ways, not solely focusing on accrual manipulation. Previous research reports that successor (predecessor) chief financial officers (CFO) engage in earnings management by recognising larger (smaller) asset impairments to decrease (improve) firm performance (e.g., Bugeja et al., 2024). Using different earnings management measures,

successor CEOs engage in big-bath accounting by using real earnings management (e.g., Geertsema et al., 2020) and by increasing loss reserves in insurance companies to lower profits (e.g., Cheng et al., 2021).

The existing literature heavily focuses on accrual and real earnings management in CEO turnover events, but it underexplores another earnings management tool: classification shifting (Vernando & Mustakini, 2025). Arguably, it is less costly than accrual and real manipulation in CEO turnover because it has minimal impact on future bad performance (Athanasakou et al., 2011). For example, revenue classification shifting (RCS) does not have the consequence of accrual reversal, as in accrual earnings management. It does not deviate from normal operating activity as requested by real earnings management. RCS is implemented by recognising the non-operating revenue as operating revenue to improve both operating revenue and operating profit (Malikov et al., 2018).

Indonesia could offer the appropriate setting to examine the RCS. RCS could apply in practice if the compensation structure or performance indicators for CEOs are measured by operating profit. For example, the regulation on remuneration of directors in state-owned enterprises in Indonesia does not take into account factors beyond the directors' control, i.e., operating profit, rather than net income (Pedoman Penetapan Penghasilan Direksi, Dewan Komisaris, dan Dewan Pengawas Badan Usaha Milik Negara, 2020). Previous studies document classification shifts in CFO turnover events (e.g., Liu et al., 2022). However, they focus on the CFOs rather than the CEOs. Although CFOs play an active role in financial reporting, CEOs have the final authority over the entire company, including financial reporting (Demers & Wang, 2010). Previous studies reported that frequent CEO turnover is more associated with accrual earnings management than CFO turnover (e.g., Li & Wang, 2024). In line with this, Park (2023) reports that the frequency of peer firms' CEO turnover is negatively related to real earnings management. Regarding misclassification shifting, Malikov and Gaia (2022) investigate classification shifting in CEO turnover events. However, they focus on expense classification shifting, rather than RCS. Unlike expense classification shifting, which only improves one metric (operating profit), RCS can improve both operating profit and revenue, making it more likely to be used than expense classification shifting (Ouyang et al., 2023). Larger and older companies tend to use RCS rather than expense classification shifting because they are more likely to get intensive scrutiny (Bansal, 2021; Palupi & Na'im, 2024). Therefore, this study examines the CEO turnover frequency and revenue classification shifting.

Using a dataset of 3129 firm-years, the results show that CEO turnover frequencies trigger revenue classification shifting. The results are robust after changing the measurements of the dependent variable and implementing another econometric technique to address endogeneity concerns using system GMM. The results contribute to the management turnover literature in at least two ways. First, this study advances the literature on CEO turnover and earnings management by offering another measurement of earnings management, earnings management using RCS. Second, by identifying classification shifting in CEO turnover, this study contributes to providing input for boards of commissioners and other stakeholders in assessing CEO performance. For example, key performance indicators (KPIs) indicate that operating profit (EBITDA) is the most important indicator of executive performance, or that operating profit carries a weight three times greater than net profit (Annual report of Antam, 2024). Classification shifting provides a less costly way to improve operating profit compared to its counterparts, accrual and real earnings management performance (Athanasakou et al., 2011).

The remainder of this paper is organised as follows. The following section describes the literature review and hypothesis development. Section 3 presents the research method. Section 4 discusses the results, and the final section concludes the paper.

Literature Review and Hypotheses Development

Earnings management and CEO turnover

Poor earnings quality is a mirror of the characteristics of top management teams (Hambrick et al., 1984; Irianto & Kurniawati, 2025). CEO turnover provides an event that can trigger earnings management for both the incoming and the outgoing CEOs (e.g., Cheng et al., 2021; Liu et al., 2022). This turnover applies

to routine or non-routine (forced) turnover. Routine turnover occurs when directors leave the firm voluntarily, while non-routine turnover occurs when directors leave the company involuntarily (Cheng et al., 2021). Routine turnover is carried out for the sustainability of the firm because directors have entered retirement, and non-routine turnover is carried out for improvement because directors are considered to have no ability to improve company performance (Murphy & Zimmerman, 1993). Recent research reports that there is a close relationship between earnings persistence and CEO turnover (e.g., Jenter & Lewellen, 2021).

The literature provides comprehensive evidence regarding the relationship between CEO turnover and earnings management. Upper echelon theory argues that the relationship between CEO tenure and short- and long-term orientation is inverted U-shaped (Weis, 2025). This indicates that early and final years of a CEO's tenure are oriented toward short-term results, while mid-tenure CEOs are oriented toward long-term results. They are assumed to be rational individuals who will maximise their utility or wealth (Jensen & Meckling, 1976). For example, in the early years, the board of commissioners is doubtful whether or not CEOs can bring value to firms, so CEOs are motivated to implement various strategies, including earnings management, to make a good impression in the early years of their tenure, as predicted by the career concern perspective (e.g., Ali & Zhang, 2015; Bouaziz et al., 2020; Cheng et al., 2021; Geertsema et al., 2020). In the final years, the horizon problem hypothesis posits that CEOs who can predict when they leave firms or retire may engage in earnings management to boost their bonus, which is linked to earnings (Kalyta, 2009; Vernando & Rakhman, 2018). It applies not only to CEOs, but also to employees generally. The longer an employee's tenure, the more likely the employee is to engage in real activity-based earnings management (Cho et al., 2021). In companies with a high frequency of director turnover within five years, accrual earnings management tends to be more pervasive (Li & Wang, 2024). Furthermore, the frequency of peer firm CEO turnover, which is triggered by real earnings management, is negatively associated with real earnings management in focal firms. Results suggest that involuntary CEO turnover in other firms has a spillover effect on other firms' RM practices (Park, 2023).

The emerging CEO turnover literature tends to focus on accrual and real earnings management (Ali & Zhang, 2015; Ansari et al., 2021; Cho et al., 2021; Harris & Erkan, 2023; Park, 2023; Sul, 2024). However, earnings management using classification shifting is less costly than accrual- and real-based earnings management (He et al., 2024). Classification shifting does not require accrual settlements in subsequent periods, which can harm future company performance as accrual earnings management (McVay, 2006). It also does not deviate from the company's normal operational activities, which can lead to reduced future performance as real earnings management (Athanasakou et al., 2011). Therefore, this study advances the CEO turnover literature by focusing on RCS.

Hypothesis Development

CEO turnover can induce CEO to engage in either income-increasing or income-decreasing earnings management. Relatively well-established literature documents that in the transition period, the incoming CEOs take a bath (income-decreasing earnings management), specifically when outgoing CEOs are underperforming, as predicted by big bath theory (Choi et al., 2014). Conversely, CEOs may also engage in income-increasing earnings management for the early or final years of their career. Strategic time horizon theory argues that the relationship between CEO tenure and strategic orientation is inverted U-shaped (Weis, 2025). This suggests that CEOs in the early and final years of their tenure tend to be short-term oriented. Career concerns cause CEOs to engage in earnings management in early tenure (Sul, 2024). In the early years of their service (not the transition period), CEOs engage in earnings management to bolster the confidence of market participants who doubted their abilities in the early years of their tenure (Ali & Zhang, 2015). At the end of the term, CEOs approaching the retirement period manage earnings in order to pump up earnings so that the amount of the pension increases (Kalyta, 2009).

Although there are two competing hypotheses in predicting whether income-increasing or income-decreasing earnings management occurs, this study argues that income-increasing earnings management is

more likely to occur in the research setting for three reasons. First, this study draws on the strategic time horizon and career concern theories. Second, it examines the frequency of CEO turnover rather than focusing solely on the occurrence of CEO turnover. Incoming CEOs may find it difficult to engage in big-bath accounting (income-decreasing earnings management) when they are aware that their firms have a history of frequent CEO turnover. Such a history suggests that the board of commissioners exercises close monitoring and is unwilling to wait for improved firm performance over an extended period. Consequently, in the context of frequent CEO turnover, incoming CEOs are more likely to engage in income-increasing rather than income-decreasing earnings management (i.e., taking a bath). Previous studies report that CEO turnover frequency is positively associated with accrual manipulation aimed at increasing earnings (e.g., Li & Wang, 2024).

Finally, previous studies also document that the frequency of CEO turnover triggered by real earnings management (RM) in peer firms may reduce RM in focal firms (Park, 2023). These findings suggest that aggressive RM practices among peer firms may discourage focal firms from engaging in similar practices. However, this relationship may not apply to the present research context, which focuses on the frequency of non-peer CEO turnover. Such turnover is more likely to be driven by poor firm performance rather than aggressive RM practices. Frequent CEO turnover may indicate that boards seek to improve firm performance by replacing CEOs. In this situation, incoming CEOs may attempt to improve firm performance by misclassifying revenue to enhance key financial performance metrics. Accordingly, the following hypothesis is proposed.

H1. CEO turnover frequency is positively associated with income-increasing earnings management using revenue classification shifting.

Research Method

The sample comprises all non-financial companies listed on the Indonesia Stock Exchange from 2012 to 2019. This study began observations in 2012, after Indonesia adopted international financial reporting standards (IFRS). Prior studies document that classification shifting is more pervasive after the adoption of IFRS (e.g., Manish Bansal, 2024; Inoue, 2021; Mabsali et al., 2021; Noh et al., 2017). This study also limits the period to 2019 to avoid an abnormal frequency of CEO turnover due to the impact of the COVID-19 pandemic. This strategy is similar to prior studies (e.g., Haveman et al., 2017) that avoid an unintended factor, the 2008 financial crisis, which affects their results. Moreover, this study avoids the confounding effects from accounting standard (PSAK 115 adopted from IFRS 15) changes for revenue recognition, which became effective on 1 January 2020 in Indonesia. Prior studies document that earnings management is less pervasive after the implementation of PSAK 115 in Indonesia (Febriyanty & Andayani, 2026). In a similar finding, Chen (2025) reports that revenue and earnings accrual qualities are improved after the implementation of IFRS 15 in China.

Financial data for this study are obtained from Refinitiv Eikon. For non-financial data, this study manually collects the information on CEO turnover from Annual and Financial Reports. Table 1 shows the number of samples in this study. The initial sample size was 5124. This number is reduced because 776 firm-years are non-financial companies, and 1219 firm-years do not have complete information. Thus, the final sample size was 3129.

Table 1. Sample

Information	Total
Initial sample	5124
Less: Non-financial firms	(776)
Less: Incomplete data	(1219)
Final sample	3129

The dependent variable in this study is earnings management using RCS (PROBCS), which is estimated using a model developed in previous research (Malikov et al., 2018). This study measures RCS using the model in equation (1), which is estimated per year per industry.

$$OR_{i,t}/A_{i,t-1} = \alpha\, 1/A_{i,t-1} + \beta_1\, OR_{i,t-1}/A_{i,t-1} + \beta_2\, MTB_{i,t-1} + \beta_3\, AR_{i,t-1}/A_{i,t-2} + \beta_4\, AR_{i,t}/A_{i,t-1} + \varepsilon_{i,t} \quad \text{..... (1)}$$

OR is operating income, which is defined as the sum of operating revenue. The symbols i and t represent the company and year, respectively. The symbol A refers to total assets. MTB is the ratio of the market value of equity divided by the book value of equity. AR is receivables. The difference between actual operating income and expected operating income is the expected operating income (UE_OR). This study does not use UE_OR as a dependent variable (e.g., Malikov et al., 2018), but this study relates UE_OR to suspect firms (SUSPECT) based on the criteria of sales growth between 0.00 and 0.03 (e.g., Athanasakou et al., 2011; Zalata & Roberts, 2017). It is widely known that managers engage in earnings management to avoid a decrease in previous financial benchmarks (Hwang et al., 2022), and one of them is revenue, which can be facilitated by misclassifying revenue items to meet or beat previous performance indicators. The probability of classification shifting (PROBCS) is given a value of 1 if UE_OR is positive and sales growth is between 0.00 and 0.03, and a value of 0 otherwise. However, this study also uses UE_OR as a dependent variable without relating it to the suspect firms in the robustness test.

This study uses logistic regression analysis to test the hypothesis. The logistic regression model used to test the hypothesis is shown in equation (2).

$$PROBCS_{i,t} = \alpha + \beta_1 TURNFREQ_{i,t} + \beta_2 LNASSETS_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GROWTH_{i,t} + \beta_5 AGE_{i,t} + YEAR_FIXED_EFFECTS + \varepsilon_{i,t} \quad \text{..... (2)}$$

PROBCS is the probability of firms using RCS, measured by a value of 1 if the residual (UE_OR) in equation 1 is positive and sales growth is between 0.00 and 0.03, and a value of 0 otherwise (Athanasakou et al., 2009; Zalata & Roberts, 2017). As a main independent variable, TURNFREQ is the frequency of CEO turnover in a company (e.g., Li & Wang, 2024). TURNFREQ measures the number of CEO turnovers within 4 years. This study uses control variables to absorb differences in characteristics between companies, consistent with previous research (Bansal et al., 2023). The natural logarithm of total assets measures LNASSETS. Total liabilities divided by total assets measures leverage (LEV). Asset growth (GROWTH) is measured by total assets at the end of the year minus total assets at the beginning of the year, divided by total assets at the beginning of the year. Company age (AGE) is measured by the number of years since its initial public offering. In addition, this study also uses year-fixed effects to reduce the macroeconomic influence in a particular year, consistent with previous research (e.g., Zalata & Abdelfattah, 2021).

Results and Discussion

Descriptive Statistics and Pearson Correlations

Table 2 shows the general information for all variables. The average of PROBCS is 0.028, suggesting that nearly three per cent of the total sample may engage in RCS. The TURNFREQ has a maximum value of 3, indicating that there are some firms replacing their CEO three times in four years. The median of UE_OR and NOR is -0.004 and 0.002, respectively, which is qualitatively similar to previous studies (e.g., Malikov et al., 2018). The average of SUSPECT is 0.066, showing that slightly under seven per cent of firms are experiencing revenue growth between 0.00 and 0.03 per cent.

Table 2. Descriptive Statistics

Variables	N	Mean	Std. Dev.	p.25	p.50	p.75	Max.	Min.
PROBCS	3129	0.028	0.165	0.000	0.000	0.000	1,000	0.000
TURNFREQ	3129	0.291	0.554	0.000	0.000	0.000	3,000	0.000
UE_OR	3129	0.009	0.208	-0.102	-0.004	0.101	0.502	-0.402
NOR	3129	0.007	0.011	0.000	0.002	0.008	0.041	0.000
Suspect	3129	0.066	0.247	0.000	0.000	0.000	1,000	0.000
LNASSETS	3129	28,528	1,522	27,404	28,525	29,653	31.22	25,752
LEV	3129	0.516	0.222	0.343	0.522	0.672	0.944	0.138
GROWTH	3129	0.102	0.177	-0.009	0.073	0.182	0.551	-0.177
AGE	3129	14.803	8.877	6.167	15.083	23.000	28.667	1.667

Notes: PROBCS is the probability of firms using revenue classification shifting (RCS). TURNFREQ refers to the frequency of CEO turnover in a company. UE_OR is unexpected operating revenue. NOR is non-operating revenue. LNASSETS is total assets. LEV is leverage. GROWTH refers to firm growth. AGE is firm age.

The information about the correlation among variables is presented in Table 3. The variable of probability of classification shifting (PROBCS) is positively associated with CEO turnover frequency (TURNFREQ) at the 5 per cent level. This is initial evidence to support the hypothesis. However, this initial evidence of simple correlation must be validated with advanced econometric techniques. In addition, no variable pairs exhibit correlations above 0.8, suggesting no serious multicollinearity.

Table 3. Pearson Correlation

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) PROBCS	1						
(2) UEOR	0.102***	1					
(3) TURNFREQ	0.043**	0.008	1				
(4) NOR	0.015	-0.014	0.047***	1			
(5) LNASSETS	0.020	-0.053***	0.087***	0.053***	1		
(6) LEV	0.023	0.023	-0.033*	-0.127***	0.148***	1	
(7) GROWTH	-0.044**	0.065***	-0.033*	0.119***	0.132***	0.017	1
(8) AGE	0.046**	0.020	0.073***	0.057***	0.035*	0.022	-0.095***

Note: ***, **, * show significance at 1, 5, and 10 per cent levels, respectively, using two-tailed tests. PROBCS is the probability of firms using revenue classification shifting (RCS). TURNFREQ refers to the frequency of CEO turnover in a company. UE_OR is unexpected operating revenue. NOR is non-operating revenue. LNASSETS is total assets. LEV is leverage. GROWTH refers to firm growth. AGE is firm age.

Main Results

Table 4 shows the main tests for the hypothesis. As expected, the coefficient of CEO turnover frequency (TURNFREQ) is positively associated with the probability of firms engaging in classification shifting (PROBCS) at the five per cent level. Therefore, the hypothesis is supported. Regarding control variables, the two coefficients are significant at various levels. The GROWTH variable has a negative coefficient (-1.253), implying that firms growing positively may not engage in classification shifting because they are in a good position. Firms engage in RCS because they attempt to meet the benchmark or previous sales (Malikov et al., 2018). Prior studies find that firm growth is negatively associated with classification shifting (He et al., 2024; Mulchandani & Mulchandani, 2022). The results show that AGE is positively associated (0.027) with PROBCS. The positive association between firm age and RCS implies that older firms have more complex income statement structures with a longer history of non-operating revenue streams, providing greater opportunities to misclassify items (Bansal, 2021). This result is consistent with previous studies (He et al., 2024). LNASSETS and LEV are not related to the probability of classification shifting (PROBCS), consistent with prior studies (Bansal, 2024; Inoue, 2021; Mulchandani & Mulchandani, 2022).

Table 4. Turnover Frequency and Probability of Classification Shifting

Variables	Dep. Var.= PROBCS Logistic Regression	Dep. Var.= PROBCS Logistic Regression
TURNFREQ	0.350**	0.325**
	(2.10)	(1.93)
LNASSETS		0.062
		(0.85)
LEV		0.548
		(1.13)
GROWTH		-1.253*
		(-1.72)
AGE		0.027**
		(2.14)
Intercept	-4.704***	-6.950***
	(-8.11)	(-3.30)
Year-Fixed Effects	Included	Included
N	3129	3129
Pseudo R-squared	0.028	0.035

Note: ***, **, * show the significance at 1, 5, and 10 per cent levels, respectively, using one-tailed tests for predicted coefficient directions and using two-tailed tests for unpredicted coefficient directions. The value in parentheses shows the t-statistic. PROBCS is the probability of firms using revenue classification shifting (RCS). TURNFREQ refers to the frequency of CEO turnover in a company. LNASSETS is total assets. LEV is leverage. GROWTH refers to firm growth. AGE is firm age.

Discussion

The results show a positive association between frequent CEO turnover and RCS. The results suggest that the frequency of CEO turnover induces RCS. The new results echo previous results that report that the frequency of CEO turnover is positively associated with accrual earnings management to boost earnings (Li & Wang, 2024). The results are consistent with the strategic time horizon theory, which argues that CEOs tend to be short-term oriented at the beginning and end of their tenure (Weis, 2025). The results are relevant to the career concerns perspective, arguing that CEOs engage in earnings management in early tenure to show their capability to navigate the firm (Sul, 2024). The motivation for earnings management in the early tenure of CEOs tends to focus on short-term performance at the expense of long-term performance. Managers focus on the short term because the sensitivity to poor performance-induced CEO turnover only applies early in a CEO's tenure and tends to decrease with increasing length of tenure (Jenter & Lewellen, 2021). Therefore, managers attempt to improve earnings using earnings management in the early years of their tenure (e.g., Ali & Zhang, 2015; Liu et al., 2022).

The results seem inconsistent with recent work (Park, 2023), which documents that peer CEO turnover, which is triggered by aggressive earnings management, alleviates the practice of RM in focal firms. The results are intuitive because the board of commissioners could discipline the CEO who engages in aggressive earnings management. Thus, CEOs in other firms could decrease RM to avoid the same experience. Moreover, the findings could be inconsistent with the big bath perspective. The literature also documents that, in the transition period, new CEOs take a bath (income-decreasing earnings management), specifically when outgoing CEOs are underperforming (Choi et al., 2014). Nevertheless, the research setting focuses on frequent CEO turnover, which could be caused by poor performance, suggesting that the board of commissioners are not being patient enough to improve firm performance. Therefore, the new CEOs are motivated to manage earnings as the board expects. Therefore, in the research setting using frequent CEO

turnover, income-increasing earnings management using RCS is pervasive in firms experiencing frequent CEO turnover.

Sensitivity Checks

The main results suggest that CEO turnover frequency triggers RCS. Some people may argue that the results may be affected by the endogeneity problem, omitted variables, and reverse causality. The former may be induced by the CEO's competence, which is not included in the regression, so the disturbance terms include it, which is correlated with PROBCS and TURNFREQ variables. For reverse causality, earnings management may induce CEO turnover because it increases firm risk. Therefore, this study implements system GMM to address endogeneity bias, consistent with prior studies. Table 5 presents robustness checks of the main results.

Table 5. Robustness Tests Using System GMM and Other Measures of Classification Shifting

Variables	Panel A Dep. Var.= ProbCS System GMM	Panel B Dep. Var.= UE_OR Firm-Fixed Regression
TURNFREQ	0.021**	-0.010
	(1.90)	(-0.82)
NOR		-0.206
		(-0.41)
NOR* TURNFREQ		0.721
		(1.00)
L.PROBCS	-0.045**	
	(-2.10)	
LNASSETS	0.012**	-0.032*
	(2.44)	(-1.93)
LEV	0.022	0.010
	(0.68)	(0.22)
GROWTH	-0.123**	0.147***
	(-2.21)	(4.29)
AGE	0.001*	0.013
	(1.93)	(1.28)
Intercept	-0.335***	0.741
	(-2.61)	(1.56)
Year-Fixed Effects	Included	Included
N	2631	3129
R-squared	-	0.016
AR(1) test (p-value)	0.00	
AR(2) test (p-value)	0.18	
Hansen test of over-identification (p-value)	0.52	
Diff-in-Hansen test of exogeneity (p-value)	0.32	

***, **, * show significance at the 1, 5, and 10 per cent levels, respectively, using one-tailed tests for predicted coefficient directions and two-tailed tests for unpredicted coefficient directions. The value in parentheses shows the t-statistic. TURNFREQ refers to the frequency of CEO turnover in a company. UE_OR is unexpected operating revenue. PROBCS is the probability of firms using revenue classification shifting (RCS). L.PROBCS refers to previous PROBCS (t-1). NOR is non-operating revenue. LNASSETS is total assets. LEV is leverage. GROWTH refers to firm growth. AGE is firm age.

In Panel A of Table 5, the system GMM shows that the coefficient of turnover frequency is positive (0.021) and significant (1.90). More importantly, the specification test results indicate that there is no

second-order serial correlation (p-value=0.18), as shown in AR (2). The Hansen test for overidentification shows that the instruments are valid (p-value=0.52) and additional instruments, which are implemented in the system GMM, are exogenous (p-value=0.32). Overall, these results of the system GMM are qualitatively similar to the main results.

Not only does the study implement alternative analytical techniques, but it also employs another measurement of the dependent variable, classification shifting. Panel B of Table 5 presents the results using unexpected revenue without restricting the sample to suspect firms (i.e., firms with revenue growth of 0.00–0.03), as in the main analysis. The study employs firm-fixed effects regression with robust standard errors to address autocorrelation and heteroscedasticity. The results show that the interaction variable between turnover frequency and non-operating revenue (NOR*TURNFREQ) is not significant. This result is not similar to the main hypothesis. The possible explanation is that this measurement is not related to the motivation for classification shifting, meeting or beating certain benchmarks (i.e., avoiding revenue decrease). For example, previous studies document that managers engage in earnings management in order to avoid earnings decreases and meet or beat earnings or revenue benchmarks (Bansal et al., 2023; Malikov et al., 2018; Zalata & Roberts, 2017). Therefore, the results suggest that certain benchmarks may assist in identifying suspect firms that engage in classification shifting.

Conclusion

Emerging literature documents that CEOs in early and final years tend to engage in earnings management. Recent studies advance this literature by showing that CEO turnover frequencies trigger accrual earnings management to improve earnings (e.g., Li & Wang, 2024). However, it ignores exploring the efficacy of RCS, which is less costly than its counterparts. Therefore, this study examines and finds that CEO turnover frequencies are positively associated with RCS. This result only holds when the RCS measurement is related to suspect firms. The results are robust after addressing endogeneity bias by implementing the system GMM. However, in additional tests, the results are sensitive to certain measurements of classification shifting. The results hold only when those measurements are linked to suspect firms.

The research design focuses on non-financial firms from 2012-2019. Therefore, the generalizability of the results may apply only to non-financial firms. Furthermore, the results could be generalised only when accounting standards for revenue recognition are based on a rule-based approach rather than a principle-based approach. The latter was effectively implemented in Indonesia on 1 January 2020. Prior studies show that after the implementation of the principle-based approach for revenue recognition, earnings management is less prevalent (Chen, 2025; Febriyanty & Andayani, 2026).

The results have implications for theory and practice. The results expand the scope of agency theory in explaining the behaviour of managers in turbulent periods. They are more likely to pursue short-term interests to secure their positions by managing earnings up using revenue classification shifting. For practice, the results bring novel insight to the main users of financial reports when evaluating a firm's performance, and to the board of commissioners when setting remuneration for the board of directors. They should not only focus on the financial metrics, but also on the non-financial measures, customer satisfaction and product quality, for instance.

A possible limitation of this study is that it examines only RCS without considering another classification-shifting tool, namely expense classification shifting. It may also be implemented in CEO turnover because the misclassification of expenses is less likely to get attention from the board of directors than revenue so that they can misclassify it easily. However, in the context of firms having the experience of changing their CEOs frequently, they are more likely to expect that the new CEO can improve revenue compared to decreasing expenses. Further, misclassification of revenue is more likely to occur in CEO turnover than that of expenses because the former can improve two metrics (operating revenue and operating profit) of firm performance, but the latter only facilitates one metric (operating profit). Further studies can explore the role of debt financing in CEO turnover frequencies. For example, the majority (54%) of debt covenants rely on core earnings, which exclude items from non-operating (Rhodes, 2016). CEOs

who do not meet the minimum debt covenant requirements may be fired. Therefore, it is possible that debt financing strengthens the positive association between CEO turnover frequencies and revenue classification shifting.

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