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Free Cash Flow Moderated Income Smoothing, Earning Persistence Toward Earnings Response Coefficient

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Abstract

The aim of this study is to investigate: (1) the effect of income smoothing, earnings persistence, and systematic risk on ERC; (2) whether free cash flow moderates the relationship between income smoothing, earnings persistence, and systematic risk on ERC; (3) the influence of income smoothing, earnings persistence, and systematic risk on free cash flow; (4) how these factors affect free cash flow; and (5) the impact of free cash flow on ERC. The research uses a quantitative approach, drawing on secondary data from energy and mineral companies listed on the Indonesia Stock Exchange, with purposive sampling criteria for the 2018-2021 period (4 years). The findings reveal that (1) income smoothing, earnings persistence, and systematic risk do not have a significant impact on ERC; (2) free cash flow does not serve as a moderating variable, as it does not amplify the effect of income smoothing, earnings persistence, and systematic risk on ERC; (3) earnings persistence affects free cash flow; and (4) free cash flow influences ERC. The originality of this study lies in its contribution to transparency literature, demonstrating that (1) the market's reaction to earnings information is not linked to financial statement manipulation, with the market responding more to the availability of funds for investors.

Keywords: Earning Response Coefficient; Income Smoothing, Earning Persistence, Systematic Risk, Free Cash Flow.

INTRODUCTION

Rapid industry development encourages companies to acquire more investors to support business expansion and growth. When industries grow rapidly, companies often require additional capital to develop infrastructure, innovate products or services, and expand networks. In the face of these demands, companies need to attract investors by displaying promising financial performance and favorable growth potential. Therefore, accurate and transparent financial reports are key in attracting new investors and maintaining support from existing investors. Issuers must submit financial reports as required by Bapepam Regulation No. KEP-346/BL/2011, the regulation requiring the submission of periodic financial reports by issuers or public companies stipulates that the annual financial statements must be submitted with an audited report from an accountant. These reports must be submitted to Bapepam (the Financial Services Authority) no later than the end of the third month following the end of the fiscal year.

Investors in making economic decisions are usually influenced by the availability of information, one of which is related to financial reports. The financial statements contain information about the company's profit conditions. When a company reports strong profits, it typically generates a positive market response to the earnings information, which is reflected in the earnings response coefficient (ERC) value. Earnings reports are a key consideration for investors. According to the Statement of Financial Accounting Concept (SFAC) No. 1, earnings are valuable for assessing management performance, estimating the sustainability of future earnings, predicting long-term earnings potential, and evaluating investment or credit risks.

Persistent accounting earnings serve as a reliable indicator for predicting future earnings. Earnings persistence can lead to changes in financial reporting practices, which, in turn, influence how markets interpret and react to earnings information. This consistent pattern of earnings can enhance the credibility of financial reports and shape investor expectations about the company's

future performance. Not all accounting earnings are inherently persistent. Companies that engage in income smoothing may create the illusion of earnings persistence. This is particularly true when consistent earnings reporting over time leads investors or financial analysts to perceive these earnings as a reliable indicator of the company's future performance, even if the reported earnings do not truly reflect the underlying economic reality. Income smoothing can manipulate the perception of stability, which may mislead stakeholders about the company's actual financial health. Management performs income smoothing to adjust the company's performance picture to make it look stable. Although the earnings then appear persistent, investors do not have the certainty of truth to be able to evaluate and predict the reliability of the company's future performance information (Baquero, Guillermo, 2022).

Investors also cannot avoid systematic risk factors caused by interest rate fluctuations, political instability, government policies and events that affect the market as a whole. This risk cannot be avoided by portfolio diversification. This risk is inherent in the entire financial market system, and its impact can be felt by all investors and market participants. So that other information is needed besides earnings to detect stock returns, namely by using ERC.

The Earnings Response Coefficient (ERC) is a financial metric that measures the sensitivity of a company's stock price to its earnings announcements. It reflects how much the stock price changes in response to a company's earnings per share (EPS) figures, typically released quarterly or annually. It offers valuable insights into how the market evaluates the quality and reliability of earnings information, especially in a rapidly changing business environment. A higher ERC indicates a strong market response to earnings news, reflecting investor confidence in the accuracy and relevance of the information. Conversely, a lower ERC suggests that the market may be skeptical or less responsive to the reported earnings, possibly due to concerns about the sustainability or transparency of the figures (Santoso, Ikhsan Hadi, Triasputra Daniswara, 2022). Each company exhibits a unique relationship between announced earnings and expected stock returns. When higher earnings are anticipated to lead to increased stock returns, the earnings response coefficient (ERC) tends to be higher. A higher ERC indicates that the market reacts more strongly to earnings announcements, reflecting the expectation that improved earnings will drive better future performance and higher returns for investors. This relationship underscores how the market's response to earnings information can vary depending on investor expectations and the company's financial outlook. Investors will find it easier to predict the profit earned from investing in a company by knowing the company's ERC level (Chandra, 2020).

Investors often view free cash flow positively because it indicates a company's ability to generate cash after covering its capital expenditures, which suggests financial flexibility and potential for future growth, dividends, or share buybacks. However, from the perspective of agency theory, free cash flow can create a conflict of interest between shareholders, management, and creditors. Shareholders may desire the company to use the excess cash for investments that drive growth or increase dividends, while management may be tempted to misuse the funds for personal interests or suboptimal investments, rather than returning it to shareholders. Creditors, on the other hand, may worry that excess cash could lead to higher risk-taking by management, jeopardizing the company's ability to repay its debts. This creates a misalignment of incentives, as each party has different objectives for the use of free cash flow.

Shareholders may prefer that excess cash be used for dividends or reinvested to increase value, while management might use it for personal interests, and creditors may be concerned about the company's ability to service debt. This conflict highlights the potential risks associated with how free cash flow is allocated and managed within a company. Investors want free cash flow distributed as dividends. Management wants free cash flow for profitable investment projects, which also hopes to get bonuses. And creditors want free cash flow to manage

repayment risk. The free cash flow agent problem arises when insiders misuse company cash, leading to unprofitable project investments.

This study will test whether free cash flow acts as a moderating variable or independent variable. This is considered because income smoothing is a stabilization concept from recording techniques not from adding money. Earnings persistence also refers to the stability of earnings that is pure and not made up. Meanwhile, systematic risk is also known as market risk or the risk that comes from external factors that cannot be controlled by the company, such as changes in overall market conditions, fluctuations in interest rates, or overall economic instability. It is the risk associated with investing in a particular market or sector. And ERC is the market response to earnings announcements.

This study uses Return on Assets (ROA) and Return on Investment (ROI) as control variables to address the potential risk of omitted variable bias, which can undermine the accuracy of the research findings. By incorporating these control variables, the study aims to ensure that the results are more reliable by accounting for other financial factors that could influence the earnings response coefficient (ERC). The primary focus of the study is to analyze the relationship between income smoothing, earnings persistence, and systematic risk on ERC, with free cash flow serving as a moderating variable. This allows for a deeper understanding of how these elements influence the responsiveness of earnings to stock prices.

Additionally, the study explores the direct effect of free cash flow on the earnings response coefficient, examining how changes in free cash flow may impact the market's reaction to earnings announcements. By incorporating free cash flow as a moderating variable, the study aims to reveal whether the level of available cash influences the strength of the relationship between the examined factors (income smoothing, earnings persistence, and systematic risk) and ERC. This comprehensive analysis seeks to provide valuable insights into the dynamics of earnings behavior and market response, contributing to a more nuanced understanding of financial performance indicators.

RESEARCH METHODS

This study employs quantitative methods, which are research approaches centered on gathering and analyzing numerical data to identify patterns, relationships, or trends. Quantitative research is commonly used to test hypotheses, measure variables, and generate results that can be applied to a broader population (Strijker et al., 2020).

Research Design

This study uses quantitative research methods and secondary data. The population includes companies listed on the Indonesia Stock Exchange, with the sample selected through purposive sampling. This method involves choosing the sample based on specific criteria and considerations relevant to the study's objectives (Campbell et al., 2020), as follows: (1) Energy and mineral companies listed on the Indonesia Stock Exchange that publish annual reports for the period December 31, 2018, to 2022 (www.idx.co.id); (2) Companies that have the necessary variables for this study; (3) The application of quantitative data analysis techniques.

Measurement of Variable

Earning Response Coefficient

Calculate the *cumulative Abnorma Return* (CAR) variable with the formula:

$$CAR_{i(-5,+5)=t=-5}\sum^{+5} AR_{it}$$

In this case:

$CAR_{i(-5,+5)}$ = *The cumulative abnormal return (CAR)* for company i over the observation period is assessed across approximately 5 days, including 5 days before the publication date, the publication date itself, and 5 days after the financial statements are submitted to Bapepam.

AR_{it}= *abnormal return of* company i on day t

(a) In this study, abnormal returns are calculated using a market-adjusted model. This approach aligns with Jones (1999), who argues that the most accurate estimate of a security's return is the current market return.

Abnormal return is obtained from:

$$AR_{i,t} = R_{i,t} - R_{m.t}$$

Where:

$CAR_{i,[t_1,t_2]}$ = *The cumulative abnormal* return of company i on day t, denoted as [t-5,t+5], refers to the total return over the accumulation period, which spans from day t-5 to day t+5.

$AR_{i,t}$= *abnormal return of* company i in period t

$R_{i,t}$ = Company *return* in period t

$R_{m,t}$= Market *return* in period t

To calculate abnormal returns, the first step is to determine the daily stock returns and daily market returns.

Daily stock returns are computed using the following formula:

$$R_{it} = (P_{it} - P_{it-1})/P_{it-1}$$

$$Dimana:$$

R_{it} = stock *return of* company i on day t

P_{it} = closing price of stock i on day t

P_{it-1}= closing price of stock I on day t-1

The daily market *return* is calculated as follows:

$$R_{mt} = (IHSG_t - IHSG_{t-1})/IHSG_{t-1}$$

Where:

R_{mt} = daily market *return*

$IHSG_t$ = composite stock price index on day t

$IHSG_{t-1}$= composite stock price index on day t-1

(b) *Unexpected Earnings (UE)* is defined as the difference between the actual accounting earnings and the accounting earnings anticipated by the market. UE is measured in accordance with Kalaapur's (1994) research:

$$UE_{it} = \frac{(EPS_{it} - EPS_{it-1}}{P_{it-1}}$$

In this case:

$$UE_{it} = unexpected\ earnings\ perusahaan\ i\ pada\ periode\ t$$

$$EPS_{it} = earnings\ per\ share\ perusahaan\ i\ pada\ periode\ t$$

EPS_{it-1} = *earnings per share of* company i in the previous period t-1 t(t-1)

P_{it-1}= previous stock price

2. *To compute abnormal returns*, the initial step involves determining the daily stock returns are computed using the formula for daily stock returns and daily market returns.

$$CAR_{it} = \alpha_0 + \alpha_1 UE_{it} + \varepsilon_{it}$$

In this case:

CAR_{it} = *The cumulative abnormal return (CAR)* of company i during the observation period is calculated over a span of ±5 days around the publication of the financial statements, including the 5 days before and 5 days after the publication date.

$$UE_{it} = unexpected\ earnings$$

ε_{it} = error component in mode or company i in period t

Income Smoothing

$$Indeks\ Income\ Smoothing\ (Index\ Eckel) = \frac{CV\Delta I}{CV\Delta S}$$

Where:

ΔI = Change in net income in one period

ΔS = Change in sales in one period

CV = The coefficient of variation of a variable is determined by dividing the standard deviation by the mean of profit (I) or sales (S).This measures the relative variability of the variable in relation to its mean.

Results:

CV ΔI> ΔS, then the company practices income smoothing

CV Δ Profit > Δ Sales, then the company practices income smoothing

Companies that engage in income smoothing are assigned a value of 1, while companies that do not practice income smoothing are assigned a value of 0.

Earning Persistence

Earnings persistence refers to the extent to which current earnings can forecast or account for future earnings. It reflects how consistent and reliable a company's earnings are over time, which can be calculated from the regression of the difference between current earnings and previous earnings.

$$X_{it} = \alpha + \beta X_{it-1} + \varepsilon$$

Systematic Risk

Systematic Risk is the risk associated with changes that occur in the market as a whole, which can be calculated using beta. The beta coefficient can be obtained from the regression between stock *returns* and market *returns*, with the following formula:

$$R_{it} = \alpha + \beta R_{mt} + \varepsilon$$

αi = Expected value of security returns that are not affected by market returns

$_i \boldsymbol{\varepsilon}$ = Residual error equals zero or E($\boldsymbol{\varepsilon}$ 0_i) =

The β value is derived from stock returns and market returns

Stock returns are obtained from the stock price of each company. While the market return is obtained from the stock price which is searched through JCI. Next, find the closing price and find the company's return value, IHSH and find the Market Return through yahoo finance.

Stock Return Stock price = (P -P_{itit-1})/P_{it-1}

Market Return = (JCI -$IHSG_{itit-1}$)/$IHSG_{it-1}$

Moderating Variable

Free Cash Flow

Free cash flow is free cash flow after operating activities, Free Cash Flow = calculated by subtracting cash flow from investments from operating cash flow, and then dividing the result by total assets.

Return on Asset

Return on Asset is a level of return on the company's assets. Return on Assets (ROA) = calculated by dividing profit before tax by total assets.

Return on Equity

Return on Asset focuses on shareholders' equity. Measures the rate of return on the investment that has been made by the owner's own capital. Return on Equipment (ROE) = (Equity/Total Asset)

RESULT AND DISCUSSION

The cumulative abnormal return (CAR) for company i during the observation period is calculated over a window of ±5 days surrounding the publication of the financial statements, which includes the 5 days before and 5 days after the publication date. study period covers 2018-2022, resulting in a total of 232 observations. Table 1 is a descriptive statistic of the variables used in this study. For more clarity, it can be displayed as follows:

Table 3. Results of the t-test

Variables	Min	Max	Average	Std Deviation
ERC	-29.3175	42.0703	0.0207	3.4951
IS	0.0000	1.0000	0.6034	0.4902
EP	-0.5145	0.3208	-0.0129	0.0926
SR	-23.2586	5.5785	0.4043	2.1011
FCF	-0.2612	0.6914	0.1434	0.1371
ROA	-0.3159	0.5202	0.0488	0.0917
ROE	-1.1790	0.7660	0.0594	0.1479

Source: Data Processed (SPSS 22.00)

$$ERC = \alpha_0 + \alpha_1.IS + \alpha_2.EP + \alpha_3 SR + \alpha_4 IS * FCF + \alpha_5 EP * FCF + \alpha_6.SR * FCF + \alpha_7.ROA + \alpha_8 ROE + \varepsilon$$

Description: ERC: Earnings Response Coefficient; IS: Income Smoothing; EP: Earnings Peristence; SR: Systematic Risk; FCF: Free Cash Flow; ROA: Return on Assets; ROE: Return on Equity

The Earning Response Coefficient (ERC) shows a range from -29.3175 to 42.0703 with an average of 0.027, indicating high volatility in the market's reaction to company earnings. The large range and standard deviation of 3.4951 suggest the presence of outliers within the data. For Income Smoothing (IS), with values of 0 and 1, the average of 0.6034 suggests that most companies in the sample use smoothing techniques to stabilize earnings, and the standard deviation of 0.4902 highlights considerable variation among them. Earning Persistence (EP) reveals a wide range from -0.5145 to 0.3208 and an average of -0.0129, indicating significant variability in companies' ability to maintain profits over time, which is common across different industries. Systematic Risk (SR) varies from -23.2586 to 5.5785, with an average of 0.4043, reflecting considerable volatility in the systematic risk companies face, and the large standard deviation of 2.1011 emphasizes the need for further evaluation, especially regarding the uncommon negative systematic risk values. Free Cash Flow (FCF) values, ranging from -0.2612 to 0.6914 with an average of 0.1434, suggest that most companies maintain positive free cash flow, although there is some variability. Return on Assets (ROA) shows a range from -0.3159 to 0.5202, with an average of 0.0488, which reflects reasonable efficiency in the use of assets despite some companies being less efficient. Lastly, Return on Equity (ROE) exhibits a range from -1.1790 to 0.7660, with an average of 0.0594, pointing to significant fluctuations in equity returns, with some companies performing poorly and others excelling.

The standard deviation of IS and FCF < from the average means that it shows that the distribution of variables is homogeneous, which is a population consisting of elements with the same properties. The correlation test is carried out before conducting the t test, while the aim is

to see the correlation between the dependent and independent variables as follows:

A larger standard deviation value indicates greater variability in the values of the item, which suggests less accuracy in the mean. The correlation test is performed before the t-test to assess the relationship between the dependent and independent variables, as follows:

Table 2: Correlation Test Results

	IS	**EP**	**SR**	**FCF**	**ROA**	**ROE**
ERC	0.086	-0.74	-0.014	0.144	0.047	0.025

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

Description: ERC: Earning Response Coefficient; IS: Income Smoothing; EP: Earnings Persitance; FCF: Free Cash Flow; ROA: Return On Assets; ROE: Return On Equity.

In this analysis, there are several correlation values between Earning Response Coefficient (ERC) and various other variables. First, there is a correlation between ERC and Income Smoothing (IS) of 0.086, but the significance value is 0.1919, which indicates that there is no significant correlation between the two. Furthermore, there is also no significant correlation between ERC and Earning Persistence, with a correlation value of -0.074 and a significance of 0.261. Similarly, ERC and Systematic Risk, where the correlation value of -.014 and significance of 0.828 indicate that there is no significant relationship between the two. However, there is a significant correlation between ERC and Free Cash Flow (FCF), with a correlation value of 0.144 and a significance of 0.028. that is, there is a significant relationship between investor responses to changes in earnings and FCF. No significant correlation was found between ERC with Return on Assets (ROA) and Return on Equity (ROE), with a significance value of 0.475 and 0.709, respectively. This indicates that investor response to earnings changes is not significantly correlated with ROA or ROE. The next test is the t test to prove each hypothesis as follows:

Table 3. Results of the t-test

Variables	**Predictions**	**Coeficient**	**Prob**	**Collinearity**	
				Tolerance	**VIF**
Constant		-1.339	0.013		
IS	+	1.209	0.078	0.991	1.009
EP	+	-6.034	0.165	0.636	1.571
SR	+	0.077	0.723	0.996	1.004
IS*FCF	+	-4.747	0.173		
EP*FCF	+	13.883	0.213		
SR*FCF	+	-0.423	0.702		
ROA		1.248	0.876	0.118	8.508
ROE		-2.583	0.561	0.127	7.848
R2	0.05				
Adj R2	0.011				
F stat	1.296		0.24		
Kolmogorov-Smirnov	0.333		0.000		
Durbin Watson	2.072				
Breusch-Pagan	0.243		0.943		
Observation	232				

Source: Data Processed (SPSS 22.00)

Model 1 :

$$ERC = \alpha_0 + \alpha_1.IS + \alpha_2.EP + \alpha_3 SR + \alpha_4 IS * FCF + \alpha_5 EP * FCF + \alpha_6.SR * FCF + \alpha_7.ROA + \alpha_8 ROE + \varepsilon$$

Description: ERC: Earning Response Coefficient; IS: Income Smoothing; EP: Earnings Persitance; FCF: Free Cash Flow; ROA: Return on Assets; ROE: Return on Equity.
* = significant 0.05, ** = significant 10%

The adjusted R^2 value of 0.011 indicates that the independent variables explain only 1.1% of the variation in the dependent variable, ERC, with the remaining 98.9% attributed to other factors not examined in the model. The F value of 1.296 with a probability of 0.24 suggests that the independent variables do not have a statistically significant combined effect on ERC, meaning the model does not adequately explain the variation in the dependent variable. The normality test, using Kolmogorov-Smirnov, returned a probability value of 0.000, which is less than 0.05, indicating that the residuals do not follow a normal distribution, which may raise concerns about the model's assumptions.

Regarding multicollinearity, the variance inflation factor (VIF) values for all independent variables were below 10, indicating there is no multicollinearity or high correlation among them. The Breusch-Pagan test produced a probability value of 0.943, which is greater than 0.05, suggesting no issues with heteroscedasticity, meaning the variance of the residuals is consistent. Finally, the Durbin-Watson statistic of 2.072, which is within the acceptable range of 1 to 3, confirms that there is no autocorrelation problem with the residuals, supporting the validity of the regression model's residuals.

Based on the results of statistical testing, it is known that the coefficient of Income Smoothing is 1.209, meaning that if Income Smoothing increases by one unit, ERC will increase by 1.209. The coefficient of Earning Persistence is -6.034, meaning that if Earning Persistence increases by one unit, ERC will decrease by 6.034. It is known that the coefficient of Systematic Risk is 0.077, meaning that if Systematic Risk increases by one unit, ERC will increase by 0.077.

The coefficient value obtained does not support the hypothesis that income smoothing has a positive effect on ERC. As a result, hypothesis testing is repeated, and the analysis reveals a significance value of 0.05%.

The analysis results indicate that free cash flow (FCF) does not act as a moderating variable between income smoothing (IS) and FCF, with probabilities of 0.173, 0.213, and 0.702, all greater than 0.05. This means that free cash flow does not strengthen or weaken the effect of income smoothing, earnings persistence, and systematic risk on the earnings response coefficient (ERC). Similarly, the control variables, return on assets (ROA) and return on equity (ROE), with probabilities of 0.173 and 0.561 respectively, have no significant effect on ERC.

Income smoothing has no effect on ERC, this study supports Aritonang and Arifianto (Firmansyah, Amrie, 2016) that investors do not react to income information disclosed on the announcement date when the company practices income smoothing. The market's inability to detect or appreciate income smoothing practices carried out by companies. despite the availability of free cash flow, income smoothing practices do not make investors respond. because investors have access to sufficient information, so they can detect income smoothing practices. And knowing that the company does not consistently produce good performance despite the practice of income smoothing, thus the instability of the company's performance does not provide a significant response to changes in earnings.

Earning persistence has no effect on ERC, this research supports (Ahabba, Brigita, 2020)and (Sofianty, 2020). The probability of IS * FCF > α, 0.173 > 0.05 FCF is not a moderating variable. The probability of IS * FCF > α, 0.213 > 0.05 FCF is not a moderating variable. IS*FCF probability > α, 0.702 > 0.05 FCF is not a moderating variable. ROA probability > α, 0.173 > 0.05 ROA has no significant effect on ERC. ROE probability > α, 0.561 > 0.05 ROA has no significant effect on ERC

2nd model

$$FCF = \alpha_{0+}\alpha_{1.}IS + \alpha_{2.}EP + \alpha_{3.}SR + \varepsilon$$

Table 4. Results of the Effect of Earnings Smoothing, Earnings Persistence, and Systematic Risk on Free Cash Flow (FCF)

Variables	Predictions	Coeficient	Prob	Collinearity	
				Tolerance	VIF
Constant		0.132	0.000		
IS		0.007	0.667	0.998	1.002
PL		-0.563	0.000**	0.998	1.002
RS		0.004	0.647	0.996	1.004
R2	0.147				
Adj R2	0.136				
Fstat	13.089		0.000		
Kolmogorov-Smirnov	0.068		0.012		
Durbin Watson	1.418				
Breusch-Pagan	1.093		0.353		
Observation	232				
Var dependent: FCF					

(Dependent Variable: FCF, Independent Variables: IS, PL, and RS)

The statistical test results show that the coefficient for Income Smoothing is 0.132, which means that for each one-unit increase in income smoothing, free cash flow (FCF) will rise by 0.132. However, with a probability value of 0.0667 (greater than 0.05), this suggests that income smoothing does not significantly impact FCF.

The coefficient for Earning Persistence (PL) is -0.563, indicating that for every one-unit increase in earning persistence, FCF will decrease by 0.563. With a probability value of 0.000 (less than 0.05), it suggests that earning persistence significantly affects free cash flow.

The coefficient for Systematic Risk is 0.004, meaning that for each one-unit increase in systematic risk, free cash flow will increase by 0.004. However, with a probability value of 0.647 (greater than 0.05), this shows that systematic risk does not have a significant effect on free cash flow.

The adjusted R^2 value of 0.136 indicates that the independent variables in the model explain 13.6% of the variation in the dependent variable, while the remaining 86.4% is influenced by other unexamined factors. The F value of 13.089 with a probability of 0.000 suggests that the independent variables, when considered together, significantly affect the dependent variable. However, the normality test using Kolmogorov-Smirnov, which produced a probability of 0.012 (less than 0.05), indicates that the residuals do not follow a normal distribution, suggesting potential issues with the normality assumption.

Despite the normality issue, the multicollinearity test, using the variance inflation factor (VIF), shows that all VIF values are below 10, indicating no significant multicollinearity or high correlation among the independent variables. The Breusch-Pagan test, with a probability of 0.353 (greater than 0.05), confirms that there is no heteroscedasticity, meaning the variance of the residuals is constant. Finally, the Durbin-Watson statistic of 1.418, falling within the acceptable range of 1 to 3, assures that there is no autocorrelation problem with the residuals, supporting the reliability of the model's findings.

3rd model

$$ERC = \alpha_0 + \alpha_1 FCF + \varepsilon$$

Table 5. Results of the Effect of Free Cash Flow (FCF) on Earning Response Coefficient (ERC)

Variables	Predictions	Coeficient	Prob
Constant		-0.507	0.125
FCF		3.68	0.028
R2	0.021		
Adj R2	0.017		
Fstat	4.897		0.028
Kolmogorov-Smirnov	0.343		0.000
Durbin Watson	2.011		
Breusch-Pagan	0.468		0.495
Observation	232		

Dependent Variable: ERC, Independent Variable: FCF

The results of the statistical testing indicate that the coefficient for FCF is 3.68, meaning that for each one-unit increase in FCF, ERC is expected to increase by 3.68 units. The probability value of 0.028 (which is less than 0.05) shows that the relationship between FCF and ERC is statistically significant. However, the R^2 value of 0.021 indicates that only 2.1% of the variation in ERC is explained by FCF, while the remaining 97.9% is attributed to other factors that were not included in the model.

Further analysis of the model shows a calculated F value of 4.897 with a probability of 0.028, reinforcing the significant influence of FCF on ERC. The Kolmogorov-Smirnov normality test yielded a probability value of 0.000, which indicates that the assumption of normality holds, and there is no issue with heteroscedasticity. Finally, the Durbin-Watson statistic of 2.001, which is within the acceptable range of 1 to 3, confirms that there is no autocorrelation problem with the residuals, ensuring the reliability of the regression model.

Contribution

This study makes an important contribution to the understanding of the factors that influence ERC. By finding that income smoothing, earnings persistence, and systematic risk have no significant effect on ERC, this study corrects the previous perception that these practices have a significant impact on investors' response to changes in corporate earnings. In addition, by finding that free cash flow does not serve as a moderating variable in the relationship between income smoothing, earnings persistence, and systematic risk with ERC, this study provides additional insights into the complexity of factors affecting corporate financial performance and the market response to it. This is important for the development of theory and practice in corporate financial analysis and more accurate investment decision making.

Implications

For Companies, Earnings strategies, Companies need to re-evaluate earnings management practices, such as income smoothing, and consider whether investments are better allocated to other endeavors that can increase the long-term value of the company. **Transparency and Reporting**, It is important for companies to remain transparent in financial reporting. This research suggests that efforts to manage earnings may not provide the expected benefits in getting a more positive response from the market. **For Investors and Creditors,** Risk Assessment, Investors and creditors need to be aware that factors such as income smoothing, earnings persistence, and systematic risk may not provide an accurate indication of a company's potential risk or future performance. Therefore, investors and creditors need to dig deeper and

consider other factors in conducting investment analysis or credit assessment. Such as considering the free cash flow factor. **Decision Making,** Investors and creditors can change their approach in making investment or credit decisions by considering factors that are more relevant or significant in evaluating companies.

For Legulators, Financial Regulators: The results of this study may highlight the importance of effective financial regulation to ensure transparency and accountability in corporate financial reporting. Regulators need to update or improve financial reporting standards to ensure more accurate and relevant information for stakeholders.

Overall, this research suggests that in a rapidly changing environment, traditional components used to understand the market response to earnings changes may not be relevant or effective. Therefore, everyone involved in the decision-making process should consider the results of this study. Traditional components refer to variables that have generally been used or considered important in analyzing the market response to earnings changes. In this case Income smoothing, an earnings management practice that aims to stabilize or reduce fluctuations in a company's earnings from period to period; Earnings Persistence, the ability of a company's earnings to remain consistent or stable from period to period; Systematic Risk, Risk associated with external factors that cannot be avoided, such as market risk or industry risk. In the financial literature, many studies have focused on these factors to understand how the market reacts to changes in earnings and how companies manage their earnings to influence market perceptions. However, this study shows that the factors of Income Smoothing, Earnings Persistence and Systematic Risk are no longer relevant to understand the market response to earnings changes.

CONCLUSION

The research found that income smoothing and earnings persistence do not affect the Earning Response Coefficient (ERC), which contradicts findings by previous studies such as Senise (2023) but supports Aritonang, Arifianto, and others. Although income smoothing creates the perception of stability, it does not fundamentally change the information provided to investors, and thus does not impact ERC. Similarly, earnings persistence showed no significant effect on ERC, contradicting some earlier studies while aligning with research that found a negative and insignificant effect of earnings persistence on ERC in the manufacturing sector. Systematic risk, however, does affect ERC, as companies experience lower market responsiveness to earnings changes when systematic risk increases. Free cash flow, while important for a company’s financial health, does not moderate the effect of income smoothing, earnings persistence, or systematic risk on ERC. It is not directly related to accounting practices like income smoothing, and systematic risk influences external factors rather than free cash flow directly. Future research should explore variables beyond free cash flow that may impact ERC, conduct industry-specific studies, and use more comprehensive analysis methods for a deeper understanding of the relationships between these variables.

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