

COMPANY SIZE AND *LEVERAGE* TO *EARNINGS RESPONSE COEFFICIENT* (ERC) WITH PROFIT PERSISTENCE AS MODERATOR

(Study on Financial Companies Listed on the Indonesia Stock Exchange for the 2019-2023 Period)

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Abstract

Keywords :

Earnings Response Coefficient (ERC), Firm Size, Leverage, Earnings Persistence, Indonesia Stock Exchange

This study aims to analyze the effect of firm size and leverage on the Earnings Response Coefficient (ERC) with earnings persistence as a moderating variable in financial sector companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2023 period. Earnings Response Coefficient (ERC) measures the magnitude of market reaction to earnings information announced by companies; therefore, understanding the factors influencing ERC is important for investors, company management, and capital market regulators. This study employed a quantitative approach using panel data regression with two sub-structural models. The population consisted of all financial sector companies listed on the IDX, while the samples were selected using purposive sampling. The data were obtained from annual financial reports published on idx.co.id. The results show that: (1) firm size has a positive and significant effect on ERC, with a regression coefficient of 0.047 (t-value = 3.872, $p < 0.05$), indicating that larger companies generate stronger market responses to earnings information; (2) leverage (Debt to Equity Ratio/DER) has no significant effect on ERC (t-value = 0.167, $p > 0.05$), suggesting that debt-based financing structure is not a dominant signal for investors in assessing earnings quality in the financial sector; (3) earnings persistence has a negative and significant effect on ERC, with a regression coefficient of -2.957 (t-value = 4.637, $p < 0.05$), indicating that excessively stable earnings are perceived negatively by the market, possibly due to suspicion of income smoothing practices; (4) earnings persistence does not moderate the effect of firm size on ERC ($p = 0.698 > 0.05$); and (5) earnings persistence does not moderate the effect of leverage on ERC ($p = 0.125 > 0.05$). This study contributes to the development of ERC literature in the Indonesian capital market, particularly in the financial sector, and provides practical implications for investors not to rely solely on earnings stability in making investment decisions

INTRODUCTION

The development of Indonesia's capital market has accelerated significantly in recent years, especially since the COVID-19 pandemic. Data from the Indonesian Central Securities Depository (KSEI) recorded that the number of capital market investors reached 11.58 million as of August 2023, up 21.38% year-on-year from 9.54 million investors in the previous year (KSEI, 2023). This growth reflects the increasing public awareness to invest, including in the stock and mutual fund sectors.

In the framework of fundamental analysis, earnings information is the main signal that investors use to evaluate a company's performance and prospects. The content of profit information is responded to by the market which is reflected in the movement of stock prices. However, not all earnings announcements are responded to with the same intensity. Earnings Response Coefficient (ERC) is a measure that quantifies the abnormal market return rate in reaction to the unexpected earnings component reported by the company (Scott, 2015). The higher the ERC value indicates the stronger the market reaction, which means the reported profit is perceived to be of high quality.

Understanding the factors influencing ERC is important for various stakeholders. The strong market reaction to earnings information reflects the high ERC, which indicates that reported earnings are of quality and relevant to decision-making (Devina et al., 2019). In contrast, a low ERC indicates the low relevance of profit information for investors. Several internal factors of the company have been identified to affect the ERC, including company size, leverage, and profit persistence. The size of a company describes the size of the company that can be measured from the total assets it owns. Large companies generally have a higher level of transparency and accountability, as well as a wider scope of supervision from financial analysts and institutional investors, so that the profit information submitted is considered more credible (Chyntia et al., 2022). Meanwhile, leverage reflects the extent to which a company's assets are financed by debt. Companies with high leverage bear a greater interest burden, which has the potential to reduce the quality of profits and affect investor responses (Frederica, 2024).

Profit persistence refers to the ability of current profits as an indicator of future profits. The capital market efficiency theory states that persistent profits should receive a positive response from investors because they reflect the stability of the company's performance. However, a number of studies have shown mixed results: Andayani et al. (2007) and Chyntia et al. (2022) found a positive effect, while Katarina et al. (2019) found a negative effect of profit persistence on ERC.

Empirical data on IDX financial sector companies for the 2019-2023 period shows an interesting gap phenomenon. The ERC showed significant variation, with negative values in 2019 (-0.071) and 2022 (-0.048), but positive in 2020 (0.032), 2021 (0.198), and 2023 (0.047). This indicates the instability of the market reaction that needs to be studied further. Based on initial observations on data on financial sector companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2023 period, there are contradictory fluctuations between financial variables. The average persistence of the sector's profit fluctuated from -0.004 to 0.001, with the ERC also varying from -0.071 to 0.198. Interestingly, the theoretically expected relationship is not always confirmed: in a given year, an increase in profit persistence is followed by a decrease in ERC, and an increase in DER is accompanied by an increase in ERC. This condition indicates a paradox of market reaction that requires further explanation through empirical testing. Moreover, the financial sector has unique characteristics in the form of a funding structure dominated by debt and a high level of regulation, so the mechanism of market reaction to profits can be different from other sectors.

To provide a more comprehensive understanding, this study integrates profit persistence not only as an independent variable, but also as a moderation variable that is thought to strengthen or weaken the influence of company size and leverage on ERC.



Theoretically, in large companies with high profit persistence, the market should give a stronger response because profits are considered more credible. In contrast, in high-leverage companies, strong profit persistence can dampen risk perception, so market response remains high. However, empirical evidence for this alleged moderation is still very limited and has not been tested specifically on the financial sector in Indonesia in a span of time spanning the pre- and post-pandemic periods.

RESEARCH METHOD

This study uses a quantitative approach with a causal research design. The data used is secondary data in the form of annual financial statements of financial sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2023 period, which is obtained through the official idx.co.id website.

The research population is all financial sub-sector companies listed on the IDX. Sampling was carried out using the purposive sampling method with the following criteria: (1) listed on the IDX for the period 2019-2023 consecutively; (2) publish the complete annual financial statements; (3) have the data needed to calculate all research variables; (4) not experienced delisting during the research period. Based on these criteria, a sample of qualified companies was obtained.

Table 1. Operationalization of Research Variables

Variabel	Definition	Measurement
Company Size (X1)	The size of a company is measured by total assets	Firm Size = Ln (Total Assets)
Leverage / DER (X2)	Ratio of total debt to total equity	DER = Total Debt / Total Equity
ERC (Y)	Measure of the market's reaction to unexpected earnings information	ERC = CAR / UE CAR = Abnormal Return Kumulatif UE = Unexpected Earnings
Profit Persistence (Z)	Current profit ability is an indicator of future profit	PL = Coefisien regresi laba t atas laba t-1 (β_1 dari persamaan: $E_t = \alpha + \beta_1 E_{t-1} + \varepsilon$)

Data analysis was carried out using panel data regression with two substructural models through the EViews 12 application. The analysis steps include: (1) descriptive statistics; (2) the selection of estimation models through the Chow Test, Hausman Test, and Lagrange Multiplier Test; (3) classical assumption test (normality, multicollinearity, heteroscedasticity); and (4) hypothesis testing through F test (simultaneous), t-test (partial), coefficient of determination, and Moderate Regression Analysis (MRA) for moderation hypothesis.

RESULTS AND DISCUSSION

Overview of Research Variables

Table 2. Average Movement of Research Variables for the 2019-2023 Period

Variabel	2019	2020	2021	2022	2023
Profit Persistence	0,001	0,001	(0,004)	(0,003)	0,000
Firm Size (Total Assets)	31,620	31,993	32,198	32,337	32,386
DER (Leverage)	5,249	6,016	5,889	5,401	7,776
ERC	(0,071)	0,032	0,198	(0,048)	0,047

The data in Table 2 show some interesting phenomena. First, the Firm Size shows a consistent upward trend from 31,620 (2019) to 32,386 (2023), which indicates steady asset growth in the financial sector. Second, DER (Leverage) has fluctuated with a significant spike in 2023 to 7,776, which can be attributed to aggressive post-pandemic funding strategies. Third, Profit Persistence moved negatively in 2021 (-0.004) and 2022 (-0.003), before recovering to 0.000 in 2023. Fourth, the ERC shows extreme variation with the highest peak in 2021 (0.198) and lowest in 2019 (-0.071).

Descriptive Statistics

Table 3. Descriptive Statistical Analysis Results

Variabel	Min	Max	Mean	Std. Dev.
ERC (Y)	-1,234	2,456	0,052	0,387
Firm Size (X1)	28,100	35,200	32,107	1,426
THE (X2)	0,120	18,450	6,066	3,712
Profit Persistence (Z)	-0,018	0,012	-0,001	0,004

Source: EViews 12 output, processed by the author (2026)

The average ERC value of 0.052 with a standard deviation of 0.387 indicates considerable variation in market response between companies. The Firm Size has an average of 32,107 which reflects the size of the company's assets in natural logarithms. An average DER of 6,066 indicates the dominance of debt-based funding, which is prevalent in financial sector companies. The persistence of negative average profit (-0.001) indicates that in general the company's profit in this period has not been fully persistent.

Panel Data Regression Estimation Model Selection

The selection of the panel data regression model was carried out through a series of tests as presented in Table 4.

Table 4. Results of Panel Data Regression Estimation Model Selection

Test	Substruktural 1	Substruktural 2
Chow	EMF (p=0.0553)	EMF (p=0.0553)
Hausman	REM (p=0,1024)	REM (p=0,1024)
Lagrange Multiplier	EMC (p=0.2537)	EMC (p=0.2537)
Selected Models	Common Effect Model	Common Effect Model

Source: EViews 12 output, processed by the author (2026)

Based on the results of the Chow Test ($p = 0.0553 > 0.05$), the Hausman Test ($p = 0.1024 > 0.05$), and the Lagrange Multiplier Test ($p = 0.2537 > 0.05$), the most suitable model for both substructures is the Common Effect Model (CEM). CEM assumes that there is no difference between individuals (companies) and time in the regression model constants.

Hypothesis Testing Results

Table 5 summarizes the results of testing the five research hypotheses.

Table 5. Summary of Hypothesis Testing Results

H	Hipotesis	Coeficin	Prob. t	Verdict
H1	Company Size → ERC	0,047	0,0002	H1 Accepted
H2	Leverage (DER) → ERC	0,001	0,868	H2 Rejected
H3	Persistence of ERC → Profit	-2,957	0,000	H3 Accepted
H4	Firm Size × PL → ERC (moderation)	0,356	0,698	H4 Rejected
H5	THE × PL → ERC (moderasi)	-0,718	0,125	H5 Rejected

Source: EViews 12 output, processed by the author (2026)

Based on the testing of model 1 (substructural 1), the regression equation is obtained as follows:

$$\text{ERC} = -1.481 + 0.047 (\text{Firm Size}) + 0.001 (\text{DER}) - 2.957 (\text{PL}) + \varepsilon$$

Model 2 (substructural 2 with interaction variables):

$$\text{ERC} = -1.569 + 0.049 (\text{Firm Size}) + 0.001 (\text{DER}) - 9.810 (\text{PL}) + 0.356 (\text{Firm Size} \times \text{PL}) - 0.718 (\text{DER} \times \text{PL}) + \varepsilon$$

The Effect of Company Size on ERC. The results of the study proved that the size of the company had a positive and significant effect on ERC ($\beta = 0.047$; $t = 3.872$; $p = 0.0002 < 0.05$), so H1 was accepted. These findings are in line with signal theory that large companies have stricter oversight mechanisms, higher transparency, and a wider scope of information. This causes the resulting profit report to be more trusted by the market, so the ERC becomes higher. Investors think that companies with large total assets are more stable, especially in the face of economic crises (Okalesa et al., 2022). These results are consistent with the research of Mulyani et al. (2007), Katarina et al. (2019), Okalesa et al. (2022), and Chyntia et al. (2022).

The Effect of Leverage on ERC. Leverage (DER) was shown to have no significant effect on ERC ($t = 0.167$; $p = 0.868 > 0.05$), so H2 was rejected. These findings can be explained by the specific characteristics of the financial sector, where high debt utilization is an integral part of the business models of banking, finance companies, and insurance. Therefore, a high DER is not automatically interpreted as a risk signal by investors in the sector. In addition, investors in the financial sector tend to pay more attention to specific indicators such as Capital Adequacy Ratio (CAR), Return on Assets (ROA), or liquidity ratio rather than DER alone. These results are supported by Gunawan et al. (2021) and Sasongko et al. (2020).

The Effect of Profit Persistence on ERC. Profit persistence was shown to have a negative and significant effect on ERC ($\beta = -2.957$; $t = 4.637$; $p = 0.000 < 0.05$), so H3 was accepted in the opposite direction from the hypothetical one. These findings reveal an interesting market paradox: persistent or overly stable profits actually get a negative response from investors. This can happen for several reasons: (1) emerging market investors such as Indonesia value earnings growth more than just profit stability; (2) too stable profits can raise suspicion of income smoothing or profit management practices; and (3) in conditions of

asymmetrical information, high profit stability can increase investor uncertainty because it is difficult to distinguish whether the profit is generated reasonably. These findings are consistent with Katarina et al. (2019) who also found a negative effect of profit persistence on ERC.

The Role of Profit Persistence Moderation on the Effect of Company Size on ERC. Profit persistence was not shown to moderate the influence of firm size on ERC ($t = 0.390$; $p = 0.698 > 0.05$), so H4 was rejected. These findings indicate that the influence of firm size on ERC is independent and does not depend on the level of profit persistence. Theoretically, while persistent profits have the potential to shift the role of company-size signals, in practice the effect is not strong enough to be statistically confirmed. This is in line with the perspective of semi-strong EMH, where information on company size and earnings persistence has likely been reflected in the stock price simultaneously and independently.

The Role of Profit Persistence Moderation on the Effect of Leverage on ERC. Profit persistence was also not shown to moderate the influence of leverage on ERC ($t = 1.546$; $p = 0.125 > 0.05$), so H5 was rejected. These findings suggest that investors consider profit persistence and leverage as independent factors in shaping the market response. When profits have shown high persistence, the information from leverage no longer provides significant added value (no new information) to the ERC valuation. These results are consistent with Sandy and Mulya (2024).

CONCLUSION

First, the size of the company has a positive and significant effect on the ERC in IDX financial sub-sector companies for the 2019-2023 period. The larger the size of the company, the stronger the market response to the announced earnings information. These findings support the theory of signals that large companies are judged more credible and transparent by the market. Second, leverage (DER) has no significant effect on ERC. In the context of the financial sector, the use of high debt is a business norm, so investors do not view it as a key risk signal in assessing the quality of profits. Third, profit persistence has a negative and significant effect on ERC. Earnings that are too stable are perceived negatively by the market, possibly because investors suspect profit management practices or because the market values growth dynamics more than earnings stability. Fourth and fifth, profit persistence has not been proven to moderate the influence of company size or leverage on ERC. The influence of these two variables on ERC is independent and is not influenced by the level of persistence of the company's profit.

The implication of this research for investors is not to solely rely on profit stability as the basis for investment decisions, but also to consider the size of the company, the quality of governance, and the source of profit growth more comprehensively. For companies, these results encourage management to improve financial reporting transparency and avoid profit equalization practices that can reduce investor confidence. This study has limitations in sector coverage (financial only) and independent variables. The next research is suggested to expand the research object to cross sectors and add variables such as audit quality, corporate governance, and institutional ownership to get a more comprehensive picture.

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