Company Size as a Moderator of Factors Influencing Earnings Quality

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This study aims to obtain empirical evidence of the influence of profitability, profit growth, liquidity, leverage, Investment Opportunity Set, and firm size on earnings quality. This study also uses firm size as a moderating variable. The study population includes non-cyclical consumer sector companies listed on the Indonesia Stock Exchange (IDX) in 2021–2024. The research data sample was taken using purposive random sampling. The data in the study were processed and analyzed using panel data regression analysis without moderation and with moderation using eviews. The results of the panel data regression analysis using the Fixed Effect Model (FEM) indicating that all independent variables simultaneously have a significant effect on earnings quality. Leverage, Investment Opportunity Set (IOS), and firm size indicate no significant effect on earnings quality. Moderation regression analysis shows that firm size moderates the effect of profitability and leverage on earnings quality, indicating that larger firms have better oversight and governance mechanisms in managing earnings and debt. Conversely, firm size does not moderate the effect of profit growth, liquidity, and Investment Opportunity Set (IOS) on earnings quality. This finding indicates that high earnings do not necessarily reflect quality earnings. Companies are advised to strengthen their internal control systems and increase the transparency of financial reporting to minimize earnings management practices. Investors are expected to focus not only on profit levels and profitability, but also consider the quality of earnings and the company's overall financial structure when making investment decisions.
Keywords: earnings quality; profitability; profit growth; liquidity; leverage

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1. Introduction

Capital market participants use financial information when making economic decisions, where the information referred to is accounting information [1]. Financial statements serve as a medium for companies to communicate such financial information to shareholders, investors, and other users of financial reports. The primary measure of a company's performance is reflected in the profit it generates. The earnings value reported in the financial statements becomes the basis for shareholders and investors in making decisions. Earnings information is considered have high quality if the reported and disclosed earnings reflect reliable information and investors respond to that information. In other words, earnings quality can be observed from the ability of earnings information to elicit a market response, particularly from investors [2].

In the current era of globalization and intense competition, companies face challenges in presenting earnings quality that provides information about the company's long-term sustainability and its potential to generate future profits [3], [4]. Earnings quality is an important aspect for investors because high-quality earnings information can enhance investor confidence [5]. Financial statements with high earnings quality indicate transparency and reliability, making earnings quality a crucial component of financial reporting as it provides an accurate representation of the company's economic condition [5], [6]. Conversely, financial statements with low earnings quality make it difficult for users to assess the accuracy of the reported information [7]. Capital market participants make investment decisions based on the earnings reported by

companies; therefore, earnings quality is associated with a company's cost of capital and is a key factor in assessing corporate sustainability [8].

Given the importance of earnings quality information, this condition may encourage companies to undertake efforts to increase reported earnings [9]. Corporate earnings may serve as an indicator of cash-generating ability; however, reported earnings are based on the accrual basis of accounting and may not fully reflect the company's actual economic condition. Management may engage in earnings manipulation to present earnings as high quality while not reflecting the company's true performance. If earnings are not reported in accordance with actual conditions, earnings quality declines and becomes questionable [10]. Operating cash flow can serve as an alternative measure of earnings quality. High and stable operating cash flows indicate a company's ability to meet investment needs, repay long-term debt and interest, and provide returns to shareholders. High earnings quality is reflected in a higher proportion of operating cash flow relative to reported earnings. When operating cash flow closely approximates reported earnings, it indicates that the reported earnings more accurately reflect the company's actual performance.

Companies in the consumer non-cyclical sector primarily produce essential goods and services, where demand tends to be relatively stable and less affected by economic cycles or seasonal fluctuations. This sector includes companies engaged in food and beverages, personal care products, and household goods. Consequently, stocks in this sector tend to be relatively defensive or more stable compared to other sectors, making them attractive for long-term investors seeking safer investment options. The development of earnings quality in consumer non-cyclical companies also tends to be stable. However, it is still possible that earnings quality in this sector may be affected by managerial actions aimed at manipulating earnings. Earnings quality can be influenced by several factors, such as profitability, earnings growth, capital structure, liquidity, the Investment Opportunity Set (IOS), and firm size.

Profitability reflects a company's ability to generate earnings by utilizing its assets. High profitability indicates that management has successfully managed, allocated, and utilized company assets [4]. Therefore, companies with high profitability tend to exhibit higher earnings quality [6], [11]. Earnings quality may also improve with increasing earnings growth [11]. Consistent year-to-year growth in earnings sends a positive signal to investors, indicating strong company performance and thereby enhancing earnings quality [4].

A company's financial stability can be observed through a balanced capital structure. Companies with high levels of external financing face greater risk, which may incentivize management to manipulate earnings to present favorable performance to investors and creditors. As a result, companies with high debt levels tend to have lower earnings quality because management may present inaccurate earnings figures [4]. Previous research has [12], [13] found that high leverage significantly reduces earnings quality. Liquidity reflects a company's ability to meet its short-term obligations. Companies with high liquidity are considered financially healthy, and thus higher liquidity levels may enhance earnings quality [4], [6].

The Investment Opportunity Set (IOS) reflects conditions in which a company has profitable investment opportunities that may influence future earnings [14]. A high IOS level indicates that a company is capable of generating high-quality earnings because such earnings support sustainable growth [14]. IOS has a positive effect on earnings quality [15], [16].

Firm size can be measured by the total assets owned by the company. Large firms are considered more capable of generating stable and optimal earnings. Firm size has a significant positive effect on earnings quality [17], [18]. Management in large firms is less likely to engage in earnings manipulation because such firms are better able to generate high-quality earnings.

Large firms are typically in a mature stage and have more stable operational activities, enabling them to generate higher profits [4]. They are also more capable of achieving stable earnings growth, which enhances earnings quality. Firm size moderates the effects of profitability, leverage, and liquidity on earnings quality but does not moderate the effect of earnings growth on earnings quality [4]. Meanwhile, Huda et al. (2025) found that firm size moderates the effects of capital structure and liquidity on earnings quality but does not moderate the effect of profitability [6]. Previous research has found that the effect of IOS on earnings quality can be weakened by firm size as a moderating variable, but firm size does not moderate the effects of earnings growth and capital structure on earnings quality [16].

Based on agency theory, conflicts of interest between principals and agents may encourage managers to engage in opportunistic behavior, including earnings management, which ultimately affects earnings quality. Profitability and earnings growth are often used by investors as key indicators of firm performance. From a signaling perspective, high profitability and consistent earnings growth are expected to convey positive signals to the market regarding managerial efficiency and future prospects. However, pressure to maintain stable and increasing performance may incentivize managers to manipulate reported earnings, potentially reducing earnings quality. Therefore, although profitability and earnings growth are theoretically associated with higher earnings quality, they may also create incentives for earnings management, leading to a negative association with earnings quality.

Capital structure and liquidity are also important determinants of earnings quality. High leverage increases financial risk and monitoring by creditors, which may either discipline management or motivate them to manipulate earnings to avoid covenant violations. Excessive debt obligations can pressure managers to present favorable financial performance, thereby reducing earnings quality. On the other hand, liquidity reflects a company's ability to meet short-term obligations and signals financial stability. Firms with strong liquidity positions are expected to have less incentive to manipulate earnings. However, inefficient management of liquid assets may also obscure true operational performance. Consequently, leverage is expected to negatively affect earnings quality, while liquidity may either enhance or weaken earnings quality depending on managerial incentives and monitoring mechanisms.

The Investment Opportunity Set (IOS) represents a firm's future growth opportunities and reflects its potential to generate sustainable earnings. Firms with high IOS are generally perceived as having strong growth prospects and higher firm value. From a signaling theory perspective, high IOS provides positive information to investors regarding future performance, which should be supported by high-quality earnings. Nevertheless, firms with substantial growth opportunities may also face higher expectations from the market, increasing the likelihood of earnings management to sustain favorable performance trends. Thus, IOS is expected to influence earnings quality, although the direction of this relationship may depend on the effectiveness of corporate governance and monitoring mechanisms.

Firm size plays an important role not only as an independent determinant but also as a moderating variable in the relationship between financial characteristics and earnings quality. Larger firms typically have more complex operations, stronger internal control systems, and greater external scrutiny from regulators, analysts, and investors. These factors may reduce information asymmetry and limit managerial opportunism, thereby improving earnings quality. Moreover, firm size may strengthen or weaken the effects of profitability, leverage, liquidity, earnings growth, and IOS on earnings quality. In large firms, strong governance mechanisms may mitigate the negative impact of financial pressures on earnings quality, whereas in smaller firms, limited monitoring may intensify such effects. Therefore, firm size is expected to moderate the relationships between financial performance indicators and earnings quality.

2. Literature Review and Problem Statement

Agency Theory explains the relationship between shareholders as principals and management as agents, where agents are expected to make decisions that generate strong financial performance and ensure long-term business sustainability [3]. However, differences in interests between principals and agents may lead to agency conflicts and opportunistic behavior, including earnings manipulation, which can reduce earnings quality. In contrast, Signaling Theory emphasizes that companies voluntarily disclose high-quality financial information to reduce information asymmetry and convey positive signals to investors [19]. High-quality earnings serve as a credible signal of managerial performance and financial soundness, thereby increasing investor confidence [7]. Earnings quality itself refers to the extent to which reported earnings accurately reflect a company's true financial performance, are free from manipulation, and are sustainable over time [10], [16].

Several factors are associated with earnings quality, including profitability, earnings growth, liquidity, leverage, and the Investment Opportunity Set (IOS). Profitability reflects how efficiently a company utilizes its assets to generate earnings; while high profitability may enhance earnings quality, it may also incentivize earnings management to maintain consistent performance. Earnings growth can provide positive signals to investors, yet unstable or manipulated growth may reduce earnings reliability. Liquidity indicates the company's ability to meet short-term obligations and generally supports higher earnings quality by reducing financial pressure. Conversely, high leverage increases financial risk and interest burdens, potentially encouraging earnings manipulation, although external monitoring from creditors may also improve reporting discipline. IOS represents future growth opportunities and is generally associated with higher earnings quality, as firms with strong growth prospects tend to generate sustainable profits.

Firm size, commonly measured by total assets, plays a crucial role both as a determinant and as a moderating variable. Large firms typically have stronger governance mechanisms, broader disclosure practices, and more stable operations, which can enhance earnings quality and reduce agency problems [2], [6]. Empirical findings show mixed results: firm size may strengthen the positive effects of profitability, liquidity, leverage management, and IOS on earnings quality, yet in some cases it does not significantly moderate these relationships. Thus, firm size is considered an important contextual factor influencing how financial performance indicators affect earnings quality.

Profitability reflects a company's ability to generate earnings through the efficient utilization of its assets. Firms with high profitability tend to have stronger internal control systems and corporate governance mechanisms, which support the production of high-quality earnings[6]. However, from a signaling theory perspective, pressure to consistently report high profits may encourage earnings management practices that ultimately reduce earnings quality. Prior studies have reported mixed findings, showing negative, positive, and insignificant relationships between profitability and earnings quality. Based on these arguments, this study proposes that profitability has a negative effect on earnings quality (H1).

Earnings growth represents the change in income from one period to the next and serves as an indicator of firm performance. Increasing earnings growth is perceived as a positive signal to investors and may enhance confidence in earnings quality [16], [20]. Nevertheless, earnings growth may also motivate earnings manipulation if reported profits do not reflect the company's actual financial condition. Previous empirical findings show inconsistent results, including positive, negative, and insignificant effects. Therefore, this study hypothesizes that earnings growth negatively affects earnings quality (H2).

Liquidity indicates a company's ability to meet its short-term obligations through the management of current assets. High liquidity reflects financial stability and reduces the need for financial statement manipulation, thereby improving earnings quality [3],[6]. From an agency theory perspective, strong

liquidity also helps reduce conflicts between managers and shareholders. Although some studies report negative or insignificant findings, the dominant empirical evidence supports a positive relationship. Accordingly, this study proposes that liquidity positively affects earnings quality (H3).

Leverage represents the extent to which a company relies on debt financing. High leverage increases financial risk and interest burden, which may incentivize managers to engage in earnings manipulation, potentially reducing earnings quality [6], [7]. However, debt can also function as an external monitoring mechanism that disciplines management. Prior research findings are mixed, showing negative, positive, and insignificant relationships. In this study, leverage is hypothesized to negatively affect earnings quality (H4).

The Investment Opportunity Set (IOS) reflects a firm's future growth opportunities and investment prospects. A high IOS indicates strong potential for value creation, which can enhance investor confidence and improve earnings quality [16]. Based on agency and signaling theories, firms with substantial growth opportunities are more likely to present higher-quality financial information. Although some studies find no significant effect, most empirical evidence supports a positive relationship. Therefore, this study proposes that IOS positively affects earnings quality (H5).

Firm size represents the scale of a company, commonly measured by total assets. Larger firms typically have stronger governance structures, greater resources, and more comprehensive oversight mechanisms, which reduce opportunistic managerial behavior and improve earnings quality [2], [6]. Additionally, business diversification in large firms may reduce earnings volatility. Despite some conflicting findings in prior studies, this research hypothesizes that firm size positively affects earnings quality (H6).

In addition to serving as an independent variable, firm size is positioned as a moderating variable that may strengthen or weaken the relationships between profitability, earnings growth, liquidity, leverage, IOS, and earnings quality. Larger firms tend to have stronger governance and higher transparency, which may reinforce positive effects and mitigate negative effects on earnings quality. Although previous findings remain inconsistent, this study proposes that firm size moderates the effects of the independent variables on earnings quality (H7a–H7e).

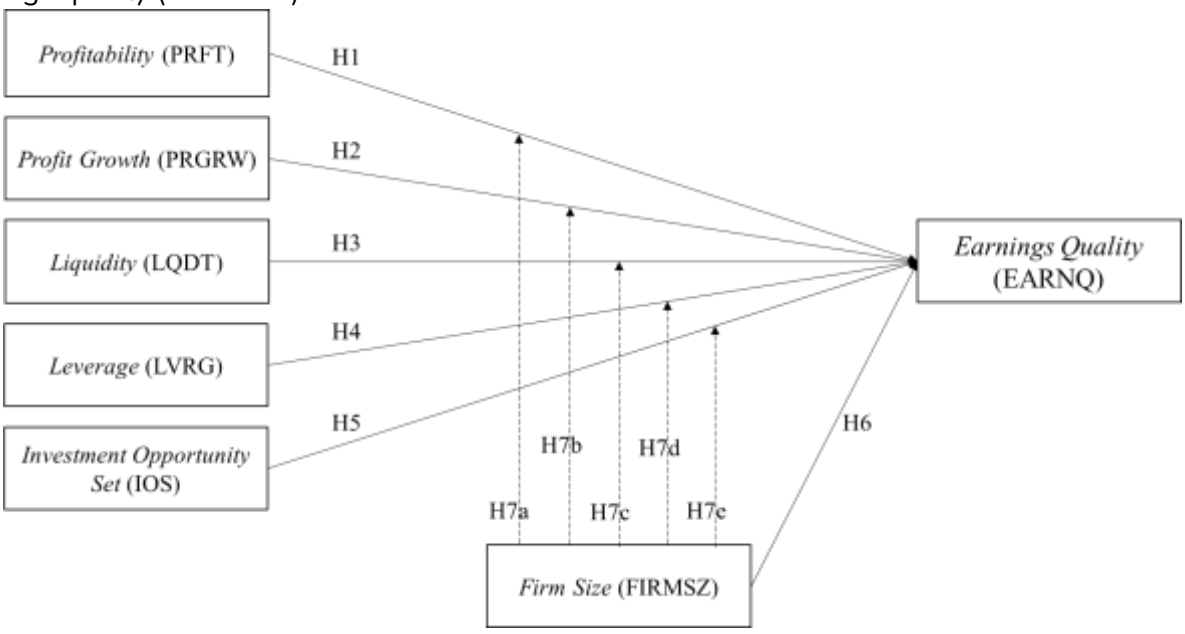

Fig 1. The research model

3. Method

This study employs a causal research design [12] to examine the effects of the independent variables—profitability, earnings growth, liquidity, leverage, Investment Opportunity Set (IOS), and firm size—on earnings quality as the dependent variable, with firm size also acting as a moderating variable. The population consists of companies listed on the Indonesia Stock Exchange (IDX) in the Consumer Non-Cyclical sector during the 2021–2024 period. The study uses secondary data obtained from published financial statements and related sources.

The sample selection criteria include companies that were not delisted, did not conduct an IPO during the observation period, and did not report losses throughout the research period. Based on these criteria, the final sample comprises 120 firm-year observations from 30 companies. The data were analyzed using panel data regression and moderated regression analysis (MRA) with EViews software. The operational measurement of each variable is presented in Table 1.

Table 1. Summary of Operational Variables

Varialel	Variable Measurement	Reference
Earnings Quality (EARNQ)	EARNQ = $\frac{Operating\ Cash\ Flow}{Net\ Profit}$	(Lestari & Khafid, 2021)
Profitability (PRFT)	ROA = $\frac{Net\ Income}{Total\ Assets}$	(Lestari & Khafid, 2021)
Profit Growth (PRGRW)	PRGRW = $\frac{Net\ Profit\ this\ year - Net\ profit\ last\ year}{Net\ Profit\ last\ year}$	(Maryati & Muhyarsyah, 2023)
Liquidity (LQDT)	CR = $\frac{Current\ Assets}{Current\ Liabilitiess}$	(Lestari & Khafid, 2021)
Leverage (LVRG)	DER = $\frac{Total\ Debt}{Total\ Equity}$	(Lestari & Khafid, 2021)
Investment Opportunity Set (IOS)	IOS = $\frac{Number\ of\ outstanding\ shares\ x\ closing\ share\ price}{Total\ Equity}$	(Maryati & Muhyarsyah, 2023)
Firm Size (FIRMSZ)	FIRMSZ = $\ln Total\ Assets$	(Lestari & Khafid, 2021)

The data analysis procedures consist of descriptive statistics and inferential testing. Descriptive statistics include the mean, median, maximum value, minimum value, and standard deviation to provide an overview of the distribution and characteristics of the research variables.

Classical assumption tests were conducted to ensure the validity of the regression model, including the normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. In addition, a regression model selection test was performed to determine the most appropriate panel data model. Hypothesis testing was carried out using the F-test, t-test, and coefficient of determination (R^2) test to evaluate the significance and explanatory power of the model.

4. Results and Discussion

Descriptive Statistics

The descriptive statistics in this study are presented in Table 2.

Table 2. Descriptive Statistics of Research Data for the 2021–2024 Period

	EARNQ	PRFT	PRGRW	LQDT	LVRG	IOS	FIRMSZ
Mean	1.607698	0.137048	0.452707	2.607288	0.924721	3.855313	29.83369
Median	1.316466	0.087751	0.088658	1.940475	0.644294	2.027267	29.66624
Maximum	8.369848	1.069533	16.62216	13.30906	6.465892	44.85702	32.93787
Minimum	0.044844	0.007540	-0.830955	0.446362	0.100232	0.122379	27.36670
Std. Dev.	1.317795	0.178195	1.771293	2.130500	0.945964	7.097788	1.433620
Observations	120	120	120	120	120	120	120

Table 2 shows that the standard deviation values for earnings quality, liquidity, and firm size are lower than their respective mean values, indicating that these three variables do not exhibit significant variation and that the mean adequately represents the overall data. In contrast, the standard deviation values for profitability, earnings growth, leverage, and IOS are higher than their mean values, suggesting a high level of data variability and that the mean may not fully represent the overall characteristics of the dataset.

Classical Assumption Tests

Normality Test

Table 3 presents the results of the normality test. The Jarque–Bera (JB) probability value (p-value) is greater than 0.05, indicating that the data in this study meet the classical assumption of normality.

Table 3. Results of the Normality Test

Probability (p-value) JB	Conclusion
0.135014	> 0,05 therefore the data are normally distributed.

Table 3 presents the results of the normality test using the Jarque–Bera (JB) method. The obtained probability (p-value) of 0.135014 is greater than the significance level of 0.05, indicating that the residuals are normally distributed. This result implies that the data in this study meet the classical assumption of normality.

The normal distribution of residuals is an essential requirement in panel data regression analysis, as it ensures the validity of statistical inference, particularly in hypothesis testing using the t-test and F-test. When the residuals are normally distributed, the estimated regression coefficients become unbiased and efficient, allowing for more reliable interpretation of the relationships among variables. Therefore, it can be concluded that the regression model used in this study satisfies the normality assumption and is appropriate for further analysis, including hypothesis testing and model estimation.

Multicollinearity Test

Table 4 presents the results of the multicollinearity test. The correlation values among the independent variables are below 0.90, indicating that there is no strong correlation among the variables. Therefore, it can be concluded that the model is free from multicollinearity.

Table 4. Multicollinearity Test Results

	PRFT	PRGRW	LQDT	LVRG	IOS	FIRMSZ
PRFT	1.000000	-0.028475	0.524650	-0.055953	0.187681	-0.388493
PRGRW	-0.028475	1.000000	-0.070289	-0.025436	-0.070026	-0.033816
LQDT	0.524650	-0.070289	1.000000	-0.430243	-0.191459	-0.391664
LVRG	-0.055953	-0.025436	-0.430243	1.000000	0.698726	0.200638
IOS	0.187681	-0.070026	-0.191459	0.698726	1.000000	-0.017127
FIRMSZ	-0.388493	-0.033816	-0.391664	0.200638	-0.017127	1.000000

Table 4 presents the results of the multicollinearity test using the correlation matrix among the independent variables. The results show that all correlation coefficients are below the threshold value of 0.90, indicating that there is no strong linear relationship among the independent variables in the model.

Specifically, the highest correlation value is observed between leverage (LVRG) and Investment Opportunity Set (IOS) at 0.698726, which remains below the critical threshold. Other correlations, such as between profitability (PRFT) and liquidity (LQDT) at 0.524650, are moderate but still within acceptable limits. The remaining correlation values are relatively low, suggesting that each independent variable captures distinct aspects of the firm's financial characteristics.

The absence of high correlation among independent variables indicates that multicollinearity is not a concern in this study. This condition ensures that the regression coefficients can be estimated reliably without significant distortion caused by overlapping explanatory variables. Moreover, it enhances the stability and interpretability of the model, allowing each variable's individual effect on earnings quality to be properly identified.

Therefore, it can be concluded that the regression model used in this study satisfies the classical assumption of no multicollinearity and is appropriate for further analysis.

Autocorrelation Test

Table 5 presents the results of the autocorrelation test, which indicate that no autocorrelation is detected.

Table 5. Autocorrelation Test Results

Durbin- Watson stat	Conclusion
1.812617	The D-W value of 1.812617 falls between -2 and +2, indicating that there is no autocorrelation, or that the model is free from autocorrelation.

Table 5 presents the results of the autocorrelation test using the Durbin–Watson (DW) statistic. The obtained Durbin–Watson value is 1.812617, which lies within the acceptable range of approximately 1.5 to 2.5, indicating the absence of autocorrelation in the regression model.

The Durbin–Watson test is commonly used to detect the presence of serial correlation in the residuals of a regression model. A value close to 2 suggests that there is no correlation among the residuals, while values approaching 0 or 4 indicate positive or negative autocorrelation, respectively. In this study, the DW value of 1.812617 is sufficiently close to 2, suggesting that the residuals are independent from one observation to another.

The absence of autocorrelation implies that the regression model does not suffer from serial correlation problems, thereby ensuring that the estimated coefficients are efficient and the statistical tests (t-test and F-test) are reliable. Consequently, the model meets the classical assumption of no autocorrelation and is suitable for further regression analysis and hypothesis testing.

Heteroskedasticity Test

The results of the heteroskedasticity test using the White test show probability (p-value) values above 0.05, indicating that heteroskedasticity is not present.

Model Testing

This study examines two equations: a panel data regression equation without moderation and a regression equation with moderation. The model test results for both equations are presented in Table 6.

Table 6. Model Test Results

	Chow Test		Hausman Test	
	Cross-section Chi-Square	Conclusion	Cross-section random	Conclusion
Equation 1	0.0000	FEM	0.0000	FEM
Equation 2	0.0000	FEM	0.0071	FEM

The Chow test results for both equations show Chi-square probability values lower than 0.05; therefore, the appropriate model is the Fixed Effect Model (FEM). The Hausman test results for both equations also indicate Chi-square probability values below 0.05, meaning that the selected model is FEM. Thus, both equations use FEM as the best-fitting model.

Panel Data Regression Analysis

The results of the panel data regression tests for the equations without moderation and with moderation are presented in Table 7.

Table 7. Panel Data Regression Results

Variable	Equation 1		Equation 2	
	Coefficient	Prob.	Coefficient	Prob.
C	14.96085	0.3021	-35.92859	0.1257
PRFT	-10.81751	0.0004	195.4856	0.0356
PRGRW	-0.154879	0.0096	2.158330	0.5107
LQDT	-0.237778	0.0045	3.131790	0.2260
LVRG	-0.178208	0.4250	43.44913	0.0099
IOS	0.014864	0.8435	-0.890858	0.6765
FIRMSZ	-0.371160	0.4414	1.342727	0.0880
PRFT_FIRMSZ			-7.040864	0.0269
PRGRW_FIRMSZ			-0.077432	0.4825
LQDT_FIRMSZ			-0.113241	0.1993
LVRG_FIRMSZ			-1.458213	0.0095
IOS_FIRMSZ			0.028133	0.6938
R-squared		0.641338		0.692496
Adjusted R-squared		0.491895		0.536798
F-statistic		4.291534		4.447686
Prob(F-statistic)		0.000000		0.000000

The F-statistic probability values for both equations are below 0.05. Therefore, it can be concluded that both equations in this study meet the goodness-of-fit criteria, meaning that the independent variables and their interactions with the moderating variable simultaneously have a significant effect on the dependent variable. The Adjusted R^2 value in the equation without moderation is 0.491895, indicating that all independent variables explain 49.19% of the variation in the dependent variable, while the remaining variation is influenced by other variables outside this study. After incorporating the interaction between the independent variables and the moderating variable, the predictive power increases, as reflected by an Adjusted R^2 of 53.68%. This result suggests that the interaction between the independent variables and firm size as a moderating variable enhances the simultaneous effect, although the increase is relatively modest.

The partial test (t-test) results for Equation 1, as presented in Table 7, show that profitability and earnings growth have significance levels of 0.0004 and 0.0096, respectively, both below 0.05. Thus, these variables

significantly affect the dependent variable. The profitability coefficient of −10.81751 indicates a significant negative effect; therefore, H1 is accepted. Earnings growth has a negative coefficient of −0.154879 and is statistically significant; thus, H2 is accepted. Meanwhile, liquidity has a significance level of 0.0045 (below 0.05) with a negative coefficient of −0.237778. Although liquidity has a significant negative effect on the dependent variable, H3 is rejected because the direction of the coefficient is inconsistent with the proposed hypothesis.

Leverage, Investment Opportunity Set (IOS), and firm size have significance values of 0.4250, 0.8435, and 0.4414, respectively, all above 0.05. The leverage coefficient is −0.178208, the IOS coefficient is 0.014864, and the firm size coefficient is −0.371160. Although leverage and firm size show negative directions and IOS shows a positive direction, none of these variables have a significant effect. Therefore, the results are inconsistent with the proposed hypotheses, leading to the rejection of H4, H5, and H6.

The moderated regression results for Equation 2 in Table 7 indicate that the interaction between profitability and firm size has a significance level of 0.0269 (below 0.05) with a negative coefficient of −7.040884. This finding suggests that firm size moderates the effect of profitability on earnings quality; thus, H7a is accepted. In addition, the interaction between leverage and firm size has a significance level of 0.0095 (below 0.05) with a coefficient of −1.458213. This indicates that firm size moderates the effect of leverage on earnings quality; therefore, H7d is accepted. However, firm size does not moderate the relationship between earnings growth, liquidity, and IOS with earnings quality. This is evidenced by the interaction significance values of 0.4825 (earnings growth × firm size), 0.1993 (liquidity × firm size), and 0.6938 (IOS × firm size), all above 0.05. Thus, H7b, H7c, and H7e are rejected. Overall, the moderated regression results in Equation 2 show that firm size only moderates the effects of profitability and leverage on earnings quality, but does not moderate the effects of earnings growth, liquidity, or IOS on earnings quality.

Profitability and Earnings Quality

The results indicate that profitability has a significant negative effect on earnings quality; therefore, H1 is accepted. This finding suggests that higher profitability is associated with lower earnings quality. In other words, high reported earnings do not necessarily reflect high-quality or sustainable earnings. Theoretically, profitability represents a company's ability to utilize its assets to generate profits. Firms with high profitability are generally expected to implement better corporate governance and internal control systems, thereby producing higher-quality earnings [6]. However, the findings of this study indicate a different tendency in practice.

Based on signaling theory, management has incentives to convey positive performance signals to investors by reporting high and stable earnings. The pressure to maintain consistent profitability across periods may encourage earnings management practices, either through subjective accounting policies or accrual manipulation. Such practices can ultimately reduce the quality of reported earnings, even if the nominal profit appears high.

This finding is consistent with prior studies [12], [13], [21], [22], which conclude that profitability negatively affects earnings quality. These results support the argument that highly profitable firms may have stronger incentives to manage earnings in order to maintain their performance image before investors and other stakeholders. However, the findings contradict studies by [6], [11], which report a positive effect, as well as research by [2], [4], [9], [10], [23], which find no significant effect.

Earnings Growth and Earnings Quality

The results show that earnings growth has a significant negative effect on earnings quality; thus, H2 is accepted. This finding indicates that increased earnings growth is not necessarily accompanied by

improved earnings quality. In other words, firms experiencing high earnings growth do not always report high-quality earnings. Theoretically, earnings growth reflects changes in profit from one period to the next and serves as a signal to investors regarding company performance. Increasing earnings growth is generally perceived as a positive signal, indicating performance improvement [20]. However, this study finds that high earnings growth may actually reduce earnings quality.

This finding can also be explained by signaling theory, which suggests that management has incentives to consistently present positive earnings growth information to maintain investor confidence. The pressure to sustain earnings growth trends may lead to earnings management practices, causing reported earnings to deviate from the firm's actual economic condition. Consequently, although earnings increase quantitatively, their quality may decline.

These results are consistent with previous research [17], who find a significant negative effect of earnings growth on earnings quality. This supports the view that high earnings growth may increase the likelihood of earnings manipulation to preserve the company's performance image. However, the findings differ from previous research [11], who report a significant positive effect, and from [4], [12], [16], [20], who conclude that earnings growth does not significantly affect earnings quality.

Liquidity and Earnings Quality

The results indicate that liquidity has a significant negative effect on earnings quality; therefore, H3 is rejected because the direction of the relationship is inconsistent with the proposed hypothesis. This finding suggests that higher liquidity is associated with lower earnings quality. Theoretically, liquidity reflects a company's ability to manage current assets to meet its short-term obligations. Firms with high liquidity are generally perceived as financially stable and well-positioned, which is expected to reduce agency conflicts and limit earnings manipulation practices [3], [6].

However, the findings of this study reveal a different pattern. The negative effect of liquidity on earnings quality may stem from excess current assets that are not optimally utilized in operational activities. High levels of cash or receivables may create opportunities for management to engage in accounting manipulation within current accounts to present a more favorable financial position. Moreover, firms with strong liquidity may perceive themselves as financially secure, potentially reducing the intensity of oversight regarding operational efficiency and the quality of earnings reporting.

These results are consistent with previous research has[13], who found that high liquidity can reduce earnings quality. This supports the view that excessive liquidity does not necessarily reflect strong financial performance but may indicate inefficiencies in managing current assets. However, the findings contradict [2], [4], [6], [9], [14], who report a positive relationship, as well as [22], [24], [25], who find no significant effect.

Leverage and Earnings Quality

The findings show that leverage does not have a significant effect on earnings quality; thus, H4 is rejected. This suggests that the level of leverage does not directly influence earnings quality. From a signaling theory perspective, leverage provides information to investors regarding a firm's capital structure, particularly the proportion of debt financing [7]. The insignificant effect may be attributed to external monitoring mechanisms from creditors and financial institutions, which restrict managerial discretion in manipulating earnings. Firms with high leverage are typically subject to stricter oversight, encouraging management to exercise greater caution in financial reporting.

These findings align with [11], [14], [15], [16], [17], [18], [22], [26], who conclude that leverage does not affect earnings quality. However, they contradict [7], [12], [13], [20], who find a negative effect, as well as [4], [6], [24], [25], who report a positive relationship.

Investment Opportunity Set (IOS) and Earnings Quality

The results indicate that the Investment Opportunity Set (IOS) does not significantly affect earnings quality; therefore, H5 is rejected. This finding suggests that a firm's investment opportunities are not directly reflected in the quality of its earnings. Theoretically, IOS represents future growth prospects that are expected to enhance performance and earnings quality. However, the insignificant result implies that high investment opportunities do not necessarily contribute to current-period earnings quality. IOS tends to reflect long-term growth expectations rather than present earnings quality.

These findings are consistent with [9], [24], [27], who find no significant relationship between IOS and earnings quality. However, they contradict [14], [15], [16], [20], who report a positive effect. Differences in firm characteristics and observation periods may explain these inconsistencies.

Firm Size and Earnings Quality

The findings show that firm size does not significantly affect earnings quality; thus, H6 is rejected. This indicates that company scale does not directly determine earnings quality. Theoretically, large firms are expected to produce higher earnings quality due to stronger monitoring mechanisms and more sophisticated financial reporting systems. However, this study suggests that these advantages do not necessarily result in higher-quality earnings. Operational and reporting complexity in large firms may instead increase the risk of earnings management.

These results are consistent with [9], [16], [22], [27], who conclude that firm size does not affect earnings quality. Earnings quality appears to depend more on effective management and oversight than on company scale. However, the findings contradict [17], [18], [28], who report a positive effect, as well as Firdaus & Trisnaningsih (2023) and Laoli & Herawaty (2019) [12], [29], who find a negative relationship.

Moderated Regression Analysis

Firm Size Moderates the Effect of Profitability on Earnings Quality

The moderated regression results indicate that firm size moderates the effect of profitability on earnings quality; thus, H7a is accepted. This suggests that the relationship between profitability and earnings quality depends on company scale. Large firms typically attract greater attention from investors and the public, requiring more transparent and reliable financial reporting. Higher levels of external monitoring in large firms encourage management to be more cautious in financial reporting, ensuring that profits generated from high profitability better reflect the firm's true economic condition [10].

These findings support previous research [4], [12], who argue that firm size strengthens the effect of profitability on earnings quality. Large profitable firms generally have stronger internal controls and governance systems, which can suppress earnings management practices and improve reported earnings quality. However, the results contradict previous research, who find no moderating effect [2], [6], [10], [13], [22].

Firm Size Moderates the Effect of Earnings Growth on Earnings Quality

The moderated regression results show that firm size does not moderate the effect of earnings growth on earnings quality; therefore, H7b is rejected. This indicates that the impact of earnings growth on earnings quality is not influenced by company scale. Although large firms are expected to maintain more stable

earnings growth and better earnings management systems [16], [17], the findings suggest that company size does not automatically strengthen the relationship between earnings growth and earnings quality.

The insignificant moderating role may reflect that both small and large firms have the potential to achieve stable earnings growth if they manage operations efficiently. Moreover, large firms face greater pressure to sustain growth trends, which may increase the risk of earnings management and reduce earnings quality. These results align with previous research, who conclude that firm size does not strengthen the effect of earnings growth on earnings quality [4], [12], [16], [17].

Firm Size Moderates the Effect of Liquidity on Earnings Quality

The moderated regression results indicate that firm size does not moderate the effect of liquidity on earnings quality; therefore, H7c is rejected. This finding suggests that the relationship between liquidity and earnings quality is not influenced by company scale. Theoretically, large firms are expected to manage their current assets more effectively, maintain higher liquidity levels, and ultimately produce higher earnings quality. However, the results show that the advantages associated with larger scale do not automatically strengthen the impact of liquidity on earnings quality. Large firms often face greater operational complexity and higher risk exposure, meaning that current asset management is not always carried out efficiently. These findings are consistent with previous research [22], [25], who conclude that firm size does not moderate the relationship between liquidity and earnings quality.

Firm Size Moderates the Effect of Leverage on Earnings Quality

The moderated regression results demonstrate that firm size moderates the effect of leverage on earnings quality; thus, H7d is accepted. This finding indicates that the impact of leverage on earnings quality depends on company scale. From a signaling theory perspective, large firms strive to maintain their reputation and provide positive signals to investors by presenting high-quality financial reports, even when carrying substantial debt [16]. Large firms typically have stronger governance structures and monitoring systems, enabling them to manage leverage more effectively and efficiently without resorting to earnings manipulation.

These results align with previous research, who find that firm size can weaken the effect of leverage on earnings quality [4], [6], [12], [25]. Thus, large firms tend to mitigate the adverse impact of leverage through better debt management and oversight mechanisms. However, the findings contradict previous research who report no moderating role of firm size [10], [13], [16], [17].

Firm Size Moderates the Effect of IOS on Earnings Quality

The moderated regression results reveal that firm size does not moderate the effect of the Investment Opportunity Set (IOS) on earnings quality; therefore, H7e is rejected. This finding indicates that the relationship between IOS and earnings quality is not influenced by company scale. Large firms generally have higher IOS because they can more easily gain investor trust and access broader investment opportunities. A high IOS is expected to enhance earnings quality through improved growth and investment management [16]. However, the results suggest that substantial investment opportunities in large firms are not necessarily reflected in current-period earnings quality.

The insignificant moderating role of firm size implies that IOS primarily reflects long-term growth prospects rather than present earnings quality. Moreover, large firms face operational complexity and pressure to realize investment opportunities, meaning that earnings quality does not automatically improve even when IOS is high. Therefore, firm size does not function as a moderating variable in the relationship between IOS and earnings quality. These findings do not support [16], who report a significant moderating effect.

5. Conclusion

This study aims to analyze the effects of profitability, earnings growth, liquidity, leverage, Investment Opportunity Set (IOS), and firm size on earnings quality, as well as to examine the moderating role of firm size in consumer non-cyclicals sector companies listed on the Indonesia Stock Exchange. The panel data regression analysis using the Fixed Effect Model (FEM) indicates that, simultaneously, all independent variables significantly affect earnings quality. After incorporating firm size as a moderating variable, the coefficient of determination (Adjusted R^2) increases, suggesting that firm size enhances the model's explanatory power in accounting for variations in earnings quality.

Partially, the results show that profitability and earnings growth have significant negative effects on earnings quality. These findings suggest that firms with high profitability and strong earnings growth are more likely to engage in earnings management practices to maintain their performance image, thereby reducing earnings quality. Liquidity also has a significant negative effect, indicating that firms with high liquidity may feel financially secure, potentially reducing oversight over operational efficiency and earnings reporting quality. Meanwhile, leverage, IOS, and firm size do not have significant direct effects on earnings quality, implying that debt levels, investment opportunities, and company scale do not directly determine earnings quality but rather depend on effective management and internal oversight.

The moderated regression analysis reveals that firm size only moderates the effects of profitability and leverage on earnings quality. Firm size weakens the influence of profitability and leverage, indicating that large firms possess stronger governance and monitoring mechanisms in managing earnings and debt. Conversely, firm size does not moderate the effects of earnings growth, liquidity, or IOS on earnings quality, suggesting that these relationships are not contingent upon company scale. The findings imply that high earnings do not necessarily represent high-quality earnings. Therefore, companies are advised to strengthen internal control systems and enhance financial reporting transparency to minimize earnings management practices. Investors should not focus solely on profit levels and profitability but also consider earnings quality and overall financial structure in investment decision-making. Future research is recommended to incorporate additional variables, such as corporate governance or audit quality, and to expand the research scope and observation period to obtain more comprehensive results.

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