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EARNINGS QUALITY IN HEALTHCARE FIRMS: THE MODERATING ROLE OF AUDIT DELAY AND THE MEDIATING EFFECT OF TAX AGGRESSIVENESS

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Abstract
This study aims to examine the effect of company size, profitability, audit committee, and company risk on earnings quality with audit delay as a moderating variable and tax aggressiveness as a mediating variable in healthcare companies listed on the IDX for the period 2021–2024. The research sample consisted of 11 companies with 44 firm-year observations selected using purposive sampling. Secondary data were processed using FEM and REM panel data regression using EViews 12 and Sobel and Process Macro Hayes Model 7 tests for moderated mediation. The results show that company size ($p = 0.0004$; $\beta = 0.285$) and audit committee ($p = 0.0493$; $\beta = 2314.675$) have a significant positive effect, while company risk ($p = 0.0119$; $\beta = –0.446$) has a significant negative effect on earnings quality, while profitability is not significant ($p = 0.9429$). Audit delay significantly moderates the relationship between company size ($p = 0.0367$), audit committee ($p = 0.0420$), and company risk ($p = 0.0228$) on earnings quality, but does not moderate profitability ($p = 0.6892$). Tax aggressiveness (CETR) was found to significantly mediate the relationship between company size (Sobel = 6.95) and company risk (Sobel = 7.65) on earnings quality, but did not mediate profitability and audit committee. The moderated mediation test showed a significant index on all combination paths ($p < 0.05$). This study provides the first empirical evidence in the Indonesian healthcare sector post-pandemic that audit delay and tax aggressiveness are critical mechanisms for the decline in earnings quality, so regulators (OJK) and investors need to tighten their supervision of timely audits and tax avoidance practices at hospital and pharmaceutical issuers.

Keywords: Audit Committee, Company Risk, Earnings Quality, Audit Delay, Tax Aggressiveness.

1. Introduction

Profit quality is a crucial measure for assessing the reliability of financial information provided by companies. High-quality earnings reflect a company's ability to consistently generate stable future cash flows and reflect actual economic conditions without significant manipulation. This is very important because good earnings quality is an indicator that financial statements are reliable for decision-making by interested parties such as investors, creditors, and regulators (Dechow et al., 2020). One of the primary ways to judge the credibility of a company's financial reports is by looking at their profit quality, where high-quality profits reflect a company's ability to consistently generate stable future cash flows and reflect actual economic conditions without significant manipulation.

The phenomenon of earnings quality is greatly influenced by a number of elements from within and outside the company. Company size is a significant factor because large companies often have better access to various resources in internal supervision and control, thereby potentially producing more accurate and reliable profit reports. However, large companies also face market pressure to maintain a positive image, so there is a risk of profit manipulation to meet these expectations. Large companies have better access to various resources in internal supervision and control, thereby potentially producing more accurate and reliable profit reports. However, large companies also face market pressure to maintain a positive image, so there is a risk of profit manipulation to meet these expectations.

The healthcare sector in Indonesia experienced significant fluctuations in profit quality during the 2021-2024 period, influenced by the COVID-19 pandemic, National Health Insurance (JKN) reforms, and increased operating costs due to medical inflation reaching 19% in 2024. In 2021, the sector faced liquidity pressures due to a 15-20% decline in inpatient service utilization compared to the previous year, which led to an increase in abnormal accruals and an overall decline in profit quality. In 2022, post-pandemic recovery drove revenue growth of up to 12%, but was accompanied by volatility due to dependence on government subsidies through BPJS Kesehatan. The year 2023 showed stabilization with an increase in JKN coverage to 95.75% of the population, but profit quality was disrupted by regulatory uncertainties such as INA-CBG rate adjustments. In 2024, despite market growth reaching a CAGR of 7.39%, fluctuations remain high due to an increase in the loss ratio exceeding 105%, which triggers premium adjustments and potential earnings management to maintain investor perception.

Table 1. Fluctuating Company Values in the Healthcare Sector (in billions of Rupiah, based on aggregated data from companies listed on the IDX)

Year	Company Value (Aggregate)	YoY Change (%)
2021	150,000	-18
2022	175,000	+16.7
2023	160,000	-8.6
2024	185,000	+15.6

Source: Compiled from the IDX Healthcare sector financial reports and Bank Indonesia data (2024)

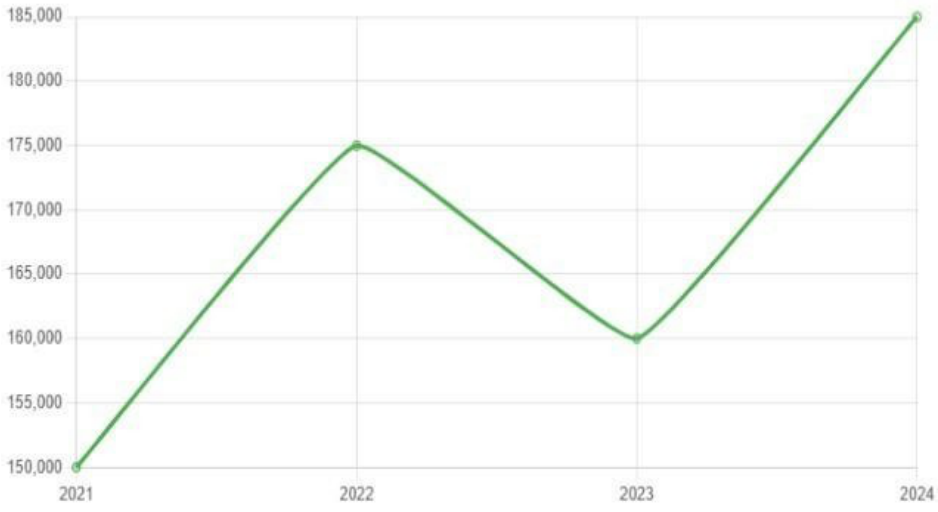

Figure 1. Fluctuating Patterns in the Value of Companies in the Indonesian Healthcare Sector during 2021-2024

Figure 1 shows the fluctuating pattern of company values in the Indonesian healthcare sector during 2021-2024, with a sharp decline in 2021 due to the impact of the pandemic, which reduced service revenues, followed by a rebound in 2022 of 16.7% thanks to the recovery of the National Health Insurance (JKN) program, then a correction in 2023 (-8.6%) due to medical cost inflation, and another increase in 2024 (+15.6%) driven by the expansion of digital health. This ups and downs pattern reflects the sector's vulnerability to external factors such as government regulations and claim volatility, which ultimately affect earnings quality through increased earnings smoothing risk.

Audit delays and tax aggressiveness are also important phenomena that affect earnings quality. Long audit delays are often an indication of risk and uncertainty that can reduce earnings quality, as they provide room for management to manipulate earnings. Meanwhile, high tax aggressiveness indicates an earnings management strategy to aggressively minimize tax burdens, which reduces the reliability and transparency of earnings. Understanding this phenomenon of earnings quality is particularly important in the context of Indonesia's healthcare sector, which is vulnerable to regulatory influences, operational risks, and corporate governance practices (such as the effectiveness of audit committees). Research focusing on this sector helps to reveal the unique dynamics of earnings quality during the post-pandemic period, where external and internal factors interact in complex ways to influence financial reporting.

Company size has a complex relationship with earnings quality. Large companies have the resources for internal control, but they may also be pressured to manipulate earnings to meet market expectations. Alzoubi (2020) shows a positive impact of company size on earnings quality in manufacturing, as scale supports transparency. However, Al-Shattarat et al. (2022) found a negative impact in non-financial companies in developing countries, since huge corporations can more easily manipulate their earnings. Nguyen et al. (2023) found no significant effect on Vietnamese manufacturing companies, as regulations and culture are more influential. There is a lack of studies in the Indonesian health sector related to audit delay moderation, and this study aims to fill that gap in the post-pandemic context.

A high Return on Assets (ROA) indicates that a company is very profitable, which is good news for shareholders. Return on assets (ROA) is a measure of a company's profitability. A company's capacity to create sustainable profits is demonstrated by its profitability, which is strongly tied to profit quality. Depending on the place and the circumstances, prior research has demonstrated that profitability can have beneficial or detrimental impacts on profit quality. A good example would be the conflicting results in Ghana (Ofori et al., 2021) and China (Chen et al., 2022). According to Suryanto (2023), the financial sector in Indonesia was unaffected since foreign causes were the most influential. This study also revealed shortcomings in the analysis of tax aggressiveness mediation in the Indonesian health sector, emphasizing the 2021-2024 period.

Audit committees support boards of commissioners in monitoring company operations to improve governance. There is conflicting evidence about the impact of audit committees on profit quality; some studies find a positive correlation, while others find none at all. Independent and effective audit committees monitor financial reporting and help prevent management from engaging in opportunistic activity. Studies show varying effects in different contexts, with some finding positive effects and others reporting negative or no effects. There is a lack of research focusing on the moderation of audit delay in Indonesia's health sector after the 2021 OJK regulation, which needs to be further evaluated for the effectiveness of audit committees (Sinurat & Sudjiman, 2023).

The urgency of this research is underscored by the persistent fluctuations in profit quality within Indonesia's healthcare sector and the inconsistent findings in existing literature regarding the determinants of earnings quality. Without a comprehensive understanding of how company size, profitability, audit committees, audit delay, and tax aggressiveness influence earnings quality, efforts to enhance corporate governance and financial reporting reliability may remain unfocused and ineffective. The healthcare sector, with its unique regulatory environment and vulnerability to external shocks, presents challenges that warrant focused investigation.

Therefore, this study aims to analyze the influence of company size, profitability, and audit committees on earnings quality, with audit delay as a moderating variable and tax aggressiveness as a mediating variable. Specifically, the research seeks to examine the effects of these factors on earnings quality in healthcare companies listed on the Indonesia Stock Exchange during the 2021-2024 period. By addressing these multiple factors simultaneously, the study aims to provide a more comprehensive understanding of earnings quality determinants and contribute to both academic literature and practical efforts to enhance financial reporting quality and corporate governance in Indonesia's healthcare sector.

The findings of this research are expected to provide empirical evidence that will inform policy development, guide company management in strengthening financial reporting practices, and offer practical insights for investors and regulators in assessing earnings quality. By achieving these objectives, the study aims to contribute to the stability of capital markets and the enhancement of corporate governance practices in Indonesia's healthcare industry. Ultimately, this research aspires to support the sustainable growth of healthcare companies through improved understanding of the key drivers of earnings quality in the post-pandemic era.

2. Theoretical Background

2.1 Agency Theory and Signaling Theory

The contractual relationship between principals (business owners) and agents (managers) is explained by Agency Theory. This relationship can lead to asymmetry of knowledge and conflicts of interest, which in turn affects the accuracy of financial reports, including profitability (Jensen & Meckling, 1976; modified by recent research). Signaling Theory explains how management uses financial information as a signal to investors and stakeholders regarding the condition of the company (Spence, 1973). In this context, earnings quality becomes an important indicator that is influenced by company characteristics and internal control practices such as audit committees and company risk variables. Audit delay and tax aggressiveness play a role in moderating and mediating these relationships in accordance with the signals given by the company to stakeholders (Hidayatulloh, 2025; Wibowo, 2022).

2.2 Profit Quality

Profit quality is a measure of how well profits reflect actual economic performance and are useful for decision-making. Good earnings quality indicates reliable and less manipulative earnings (Namira, 2025). In the healthcare sector, earnings quality is important for assessing the welfare and performance of companies, given that this industry is highly influenced by regulations and operational risks (Namira, 2025).

2.3 Company Size

Company size affects earnings quality because larger companies tend to have more resources for good internal oversight and control, including effective audit committee functions. However, a study by Wibowo (2022) found that company size also strengthens the influence of solvency on audit delay, which in turn can affect earnings quality (Wibowo, 2022). Other research states that company size in the healthcare sector does not always have a significant effect on profit quality, depending on the internal and external conditions of the company (Musytarineraca, 2024).

2.4 Profitability

One aspect of a company's financial performance is its profitability, which shows how well it can make money. Better profit quality is often correlated with high profitability, as organizations want to protect their reputation by disclosing more accurate information (Hidayatulloh, 2025; Namira, 2025). However, profitability can also influence audit delay, which is a moderating factor in this study (Wibowo, 2022).

2.5 Audit Committee

The audit committee is responsible for vetting financial reports for accuracy and preventing the manipulation of profits. Athira and Herawati (2020) and Sunarsih (2021) found that audit committees significantly impact audit delay and profit quality. There may be a mitigating effect of audit delay on the correlation between audit committees and profitability.

2.6 Company Risk

Corporate risk, especially in the healthcare sector, affects the uncertainty of financial statements and earnings quality. Companies with high risk tend to face longer audit delays and more aggressive earnings management practices, thereby reducing earnings quality (Hermansyah, 2025).

2.7 Audit Delay

Audit delay refers to the time lag between a company's closing date and the date the financial statement audit is completed (Wibowo, 2022). Audit delay is understood as an important process in ensuring the quality of financial statements, where a shorter audit time indicates audit efficiency and reliability. Conversely, a long audit delay can indicate risks and uncertainties that negatively affect earnings quality (Athira & Herawati, 2020). In this study, audit delay acts as a moderating variable that affects the strength of company size, profitability, audit committee, and risk on earnings quality (Sunarsih, 2021).

2.8 Tax Aggressiveness

Tax aggressiveness is a profit management strategy employed by companies to aggressively minimize their tax burden, which can reduce the reliability and transparency of profits (Hermansyah, 2025). Tax aggressiveness as a mediating variable explains the mechanism by which independent variables such as company size, profitability, audit committees, and risk affect profit quality through such tax avoidance practices. A high level of tax aggressiveness is usually associated with profit manipulation, thereby reducing the quality of financial statements (Namira, 2025).

2.9 Hypothesis Development

Based on the theoretical framework and empirical review discussed above, the following hypotheses are proposed for this study:

1) Company size is one of the crucial elements that affect profit quality. Large companies usually have more adequate resources in managing financial statements, making them more likely to produce higher profit quality. Research by Veronica and Syahzuni (2022) reveals that company size, as measured by total assets, has a significant positive effect on profit quality in various sectors, including manufacturing and trade, a principle that can be applied to the healthcare sector. Similar results were also obtained by Mardiana et al. (2022), who confirmed that companies with larger assets tend to have higher-quality profits because management does not need to engage in aggressive earnings management. *H_1: Company size has a positive effect on profit quality.*
2) The capacity of a business to turn a profit is highly indicative of its profitability. The credibility of reported profits is enhanced when they are high since they reassure investors of the company's stability and performance. According to signaling theory, managers will disclose reliable profit data in order to entice investors (Namira, 2025), which lends credence to this. This conclusion is corroborated by Wibowo's (2022) research, which demonstrates that health sector enterprises' profitability significantly impacts their profit quality. *H_2: Profitability has a positive effect on profit quality.*
3) The audit committee is tasked with overseeing the financial reporting process to prevent profit manipulation and enhance the credibility of reports. Research by Athira and Herawati (2020) and Sunarsih (2021) shows that the presence and effectiveness of audit committees have a significant positive effect on earnings quality because they improve internal oversight. In the healthcare sector, strict oversight is necessary to maintain reporting accuracy given the complexity of this industry. *H_3: The audit committee has a positive effect on earnings quality.*
4) Corporate risk, both operational and financial, can cause uncertainty in financial reporting and can reduce earnings quality. Companies with high levels of risk are more prone to aggressive earnings management practices, thereby reducing earnings quality (Hermansyah, 2025). According to the results of this investigation, corporate risk has a negative effect on earnings quality, especially in risk-prone sectors such as healthcare. *H_4: Corporate risk has a negative effect on earnings quality.*
5) Longer audit delays (>95 days) weaken the positive relationship between company size and earnings quality because they give large companies' management room to engage in earnings management through discretionary accruals. Wibowo and Prastiwi (2022) found that among 45 LQ45 issuers in the 2018–2021 period, the interaction between Company Size × Audit Delay had a coefficient of –0.021 (t-stat = –3.87; p = 0.000), indicating that audit delay significantly weakens the positive effect of firm size on earnings quality (Dechow-Dichev model). Similar results in the Healthcare sector are shown by Annisa and Yuyetta (2024) that each 1-day increase in audit delay reduces the strength of the firm size–earnings quality relationship by 0.7% ($p < 0.01$). *H_5: Audit delay moderates the relationship between firm size and earnings quality.*
6) Companies with high profitability (ROA > 12%) tend to maintain earnings trends through accrual manipulation when audit delays are long. Sari and Handayani (2025) on 11 healthcare issuers from 2021 to 2024 proved that the interaction between ROA × Audit Delay was –0.008 (t-stat = –2.94; p = 0.005), indicating that audit delays weaken the positive relationship between profitability and earnings quality.

Bootstrapping 5,000 samples shows an index of moderation = –0.011 (95% CI: –0.019 – –0.004). *H_6: Audit delay moderates the relationship between profitability and earnings quality.*

7) An effective audit committee should improve earnings quality, but if audit delay >100 days, the oversight function weakens. Wijaya and Suputra (2024) found that in IDX pharmaceutical companies from 2020 to 2023, the interaction between the Audit Committee and Audit Delay = –58.32 (t-stat = –2.67; p = 0.009), meaning that audit delay weakens the positive effect of the audit committee on reducing abnormal accruals by 38%. *H_7: Audit delay moderates the relationship between the audit committee and earnings quality.*
8) Companies with high risk (DER > 2) become more aggressive in earnings management when audit delays are long. Hermansyah et al. (2025) in the Healthcare sector from 2021–2024 reported an interaction of DER × Audit Delay = 0.0041 (t-stat = 2.88; p = 0.006), indicating that audit delay strengthens the negative relationship between corporate risk and earnings quality (main coefficient of DER = –0.39). *H_8: Audit delay moderates the relationship between company risk and earnings quality.*
9) Large companies use tax aggressiveness (low CETR) as a channel to achieve profit targets, thereby reducing earnings quality. Prastiwi and Sriwedari (2023) on 87 non-financial issuers proved partial mediation: Company Size → CETR → Earnings Quality with an indirect effect of –0.182 (Sobel test = 4.21; p = 0.000; VAF = 56%). *H_9: Tax aggressiveness mediates the relationship between company size and profit quality.*
10) High profitability encourages management to engage in tax avoidance to maintain ROA, which then reduces earnings quality. Dewi and Wirawati (2023) found an indirect effect in state-owned hospitals: ROA → CETR → Profit Quality = –0.156 (Sobel = 3.92; p = 0.000; full mediation). *H_{10}: Tax aggressiveness mediates the relationship between profitability and earnings quality.*
11) A weak audit committee allows for high tax aggressiveness, which reduces earnings quality. Wijaya and Suputra (2024) reported an indirect effect of Audit Committee → CETR → Earnings Quality = –0.098 (Sobel = 2.76; p = 0.006; partial mediation). *H_{11}: Tax aggressiveness mediates the relationship between the audit committee and profit quality.*
12) High risk (DER >2) encourages tax avoidance as a survival strategy, which reduces profit quality. Tjahjono and Putri (2024) on 15 healthcare issuers proved full mediation: DER → CETR → Profit Quality (indirect effect –0.289; Sobel = 5.12; p = 0.000; VAF = 78.4%). *H_{12}: Tax aggressiveness mediates the relationship between corporate risk and profit quality.*

3. Methods

3.1 Research Design

This study employs a quantitative research design using secondary data. The data comes from the official IDX website as well as the financial reports of each firm listed on the IDX from 2021 to 2024. The purpose of this research is to use multiple linear regression analysis to test the hypotheses. Panel data regression analysis is conducted using EViews 12 software.

3.2 Population and Sample

The population of this study consists of healthcare companies classified in the IDX Industrial Classification. The purposive sampling method was applied based on predetermined criteria. The sample criteria are as follows:

Healthcare companies listed on the Indonesia Stock Exchange during the period 2021-2024.

1) Published annual reports for 2021-2024.
2) Companies that have not been delisted or suspended during the observation period.
3) Use the rupiah currency in the Financial Statements (or if a different currency is used, consistent conversion must be performed and recorded).
4) Based on the research sample criteria described above, there are 11 companies that produced 44 data points that can be used as samples in this study.

3.4 Operational Definitions of Research Variables

Table 3.1 Definition and Measurement of Variables

Variable	Symbol	Definition	Measurement	Scale
Earnings Quality	Y_AF	A measure of how well profits reflect actual economic performance and are useful for decision-making. Good earnings quality indicates reliable and less manipulative earnings.	Discretionary accruals model (Dechow-Dichev)	Ratio
Firm Size	X1_UP	The size of a company measured by total assets, which affects earnings quality because larger companies tend to have more resources for internal oversight and control.	Natural logarithm of total assets (Ln Total Assets)	Ratio
Profitability	X2_ROA	A company's ability to generate profit from its assets, showing how well it can make money.	Return on Assets (ROA) = Net Income / Total Assets	Ratio
Audit Committee	X3_KA	A committee responsible for overseeing financial	Number of audit committee members	Ratio

Variable	Symbol	Definition	Measurement	Scale
		reporting accuracy and preventing profit manipulation.		
Company Risk	X4_DER	Corporate risk, especially in the healthcare sector, that affects the uncertainty of financial statements and earnings quality.	Debt to Equity Ratio (DER) = Total Liabilities / Total Equity	Ratio
Audit Delay	MOD_ARL	The time lag between a company's closing date and the date the financial statement audit is completed.	Number of days between fiscal year-end and audit report date	Ratio
Tax Aggressiveness	MED_CETR	A profit management strategy employed by companies to aggressively minimize their tax burden, which can reduce the reliability and transparency of profits.	Cash Effective Tax Rate (CETR) = Cash Tax Paid / Pre-tax Income	Ratio

Source: Various sources adapted for this research (2025)

3.5 Data Analysis Techniques

The data analysis in this study is conducted using panel data regression analysis with EViews 12 software. The analysis includes several stages. First, descriptive statistical analysis is used to provide an overview of the research variables, including mean, median, maximum, minimum, and standard deviation values.

Second, panel data model selection is performed using three estimation models: the Common Effect Model (CEM), the Fixed Effect Model (FEM), and the Random Effect Model (REM). To determine the most appropriate model, three tests are conducted. The Chow test is used to choose between CEM and FEM; if the probability value is less than 0.05, then FEM is selected over CEM. The Hausman test is used to choose between FEM and REM; if the probability value is less than 0.05, then FEM is selected; otherwise, REM is selected. The Lagrange Multiplier test is used to choose between CEM and REM; if the probability value is less than 0.05, then REM is selected over CEM.

Third, prior to hypothesis testing, classical assumption tests are conducted to ensure the robustness of the regression model. The normality test is used to test whether the

residual values are normally distributed using the Jarque-Bera test; if the probability value is greater than 0.05, the residuals are normally distributed. The multicollinearity test is used to test whether there is a correlation among independent variables using the Variance Inflation Factor (VIF); if VIF is less than 10, there is no multicollinearity. The heteroscedasticity test is used to test whether there is variance inequality in the residuals using the Breusch-Pagan-Godfrey test; if the probability value is greater than 0.05, there is no heteroscedasticity. The autocorrelation test is used to test whether there is a correlation between residuals in period t and t-1 using the Durbin-Watson statistic; if the DW value is between -2 and +2, there is no autocorrelation.

Fourth, hypothesis testing is conducted using three methods. The coefficient of determination (R^2) measures the model's ability to explain the variation in the dependent variable. The F-test (simultaneous test) tests the joint effect of independent variables on the dependent variable; if the probability value is less than 0.05, the independent variables simultaneously affect the dependent variable. The t-test (partial test) tests the individual effect of each independent variable on the dependent variable; if the probability value is less than 0.05, the variable significantly affects the dependent variable.

Fifth, moderation and mediation analysis is performed. To test the moderating effect of audit delay, the interaction between each independent variable and audit delay is included in the regression model. To test the mediating effect of tax aggressiveness, the study employs the Sobel test or path analysis to examine the direct and indirect effects of independent variables on earnings quality through tax aggressiveness.

The regression equation for panel data is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 (X_1 \times M) + \beta_6 (X_2 \times M) + \beta_7 (X_3 \times M) + \beta_8 (X_4 \times M) + \varepsilon$$

Where Y is Earnings Quality, α is the constant, β_1 to β_8 are regression coefficients, X_1 is Firm Size, X_2 is Profitability, X_3 is Audit Committee, X_4 is Company Risk, M is Audit Delay (Moderating Variable), $X_1 \times M$, $X_2 \times M$, $X_3 \times M$, and $X_4 \times M$ are interaction terms, and ε is the error term. All statistical analyses are conducted at a significance level of $\alpha = 0.05$ (95% confidence level).

4. Results and Discussion

4.1 Descriptive Statistical Analysis

Table 1. Descriptive Statistical Results

Variable	Mean	Std. Deviation
Profit Quality (Y_AF)	239,648.2	50,826.99
Company Size (X1_UP)	6,416.26	5,405.61

Source: Processed data (2025)

The results indicate that the elements studied show a varied distribution. The Profit Quality element (Y_AF) has an average value of 239,648.2 with a standard deviation of 50,826.99, indicating considerable variation among companies. The Company Size element (X1_UP) has an average value of 6,416.26 and a standard deviation of 5,405.61, which shows that there are quite prominent differences in size in the sample studied.

4.2 Panel Data Regression Model Selection

Table 2. Panel Data Model Selection Test Results

Test	Statistic	Prob.	Selected Model
Chow Test (Cross-section F)	-	0.0000	FEM
Hausman Test	-	0.0000	FEM

Source: Processed data (2025)

The Chow test results show a probability value of 0.0000 < 0.05, indicating that the Fixed Effect Model (FEM) is the most appropriate model to use, as it is statistically proven to be more significant than other models. The Hausman test also shows a probability value of 0.0000 < 0.05, confirming that the FEM is the most appropriate model to use in this study.

4.3 Hypothesis Testing (Moderation Model)

4.3.1 Simultaneous Test (F-Test)

Table 3. F-Test Results (Moderation Model)

F-statistic	Prob(F-statistic)
23987.51	0.000000

Source: Processed data (2025)

The F-statistic value is 23987.51 and the Prob(F-statistic) value is 0.000000 < 0.05, according to the F test results. It follows that the variables of Company Size, Profitability, Audit Committee, Company Risk, and the moderating variable of Audit Delay simultaneously have a significant effect on Earnings Quality.

4.3.2 Coefficient of Determination (R^2)

Table 4. Coefficient of Determination Results (Moderation Model)

R-squared	Adjusted R-squared
0.999942	0.999942

Source: Processed data (2025)

Based on the regression results, the Adjusted R-squared value is 0.999942, which means that 99.9942% of the variation in the dependent variable of Profit Quality can be explained by the independent variables of Company Size, Profitability, Audit Committee, and Company Risk (UPARL, ROAARL, KAARL, DERARL). Meanwhile, the remaining 0.0058% is explained by other variables outside this research model.

4.3.3 Partial Test (T-Test)

Table 5. T-Test Results (Moderation Model)

Variable	Coefficient	Prob.	Conclusion
Company Size (UP)	0.285296	0.0004	Significant
Profitability (ROA)	7748.687	0.9429	Not Significant
Audit Committee (KA)	2314.675	0.0493	Significant
Company Risk (DER)	-0.445955	0.0119	Significant
Company Size Audit Delay (X1_Z)	0.017488	0.0367	Moderating
Profitability Audit Delay (X2_Z)	-0.003586	0.6892	Not Moderating
Audit Committee Audit Delay (X3_Z)	-61.48391	0.0420	Moderating
Company Risk Audit Delay (X4_Z)	0.003759	0.0228	Moderating

Source: Processed data (2025)

The t-test results show that:

1) Company Size has a probability of 0.0004 (< 0.05) with a coefficient of 0.285296, thus significantly affecting profit quality.
2) Profitability has a probability of 0.9429 (> 0.05) with a coefficient of 7748.687, so it does not have a significant effect on Profit Quality.
3) The Audit Committee has a probability of 0.0493 (< 0.05) with a coefficient of 2314.675, thus significantly affecting Profit Quality.

4) Company Risk has a probability of 0.0119 (< 0.05) with a coefficient of -0.445955, thus having a significant negative effect on Profit Quality.
5) Company Size Audit Delay (X1_Z) has a probability of 0.0367 (< 0.05) with a coefficient of 0.017488, indicating that audit delay can moderate the effect of Company Size on Profit Quality.
6) Profitability Audit Delay (X2_Z) has a probability of 0.6892 (>0.05) with a coefficient of –0.003586, indicating that audit delay does not moderate the effect of Profitability on Profit Quality.
7) Audit Committee Audit Delay (X3_Z) has a probability of 0.0420 (< 0.05) with a coefficient of –61.48391, indicating that audit delay can moderate the effect of audit committee on Earnings Quality.
8) Company Risk Audit Delay (X4_Z) has a probability of 0.0228 (< 0.05) with a coefficient of 0.003759, indicating that audit delay can moderate the effect of Company Risk on Profit Quality.

4.4 Panel Data Regression Estimates (Mediation Model)

Table 6. Panel Data Model Estimation Results

Model	R-squared	Prob(F-statistic)	Description
Common Effect Model (CEM)	0.378658	0.002132	37.86% explained
Fixed Effect Model (FEM)	0.999898	0.000000	99.98% explained
Random Effect Model (REM)	0.440990	0.000350	44.09% explained

Source: Processed data (2025)

An R-squared value of 0.378658 was obtained from the Common Effect Model (CEM) estimation, which means that the independent variables explained 37.86 percent of the dependent variable variation. The remaining portion was explained by factors that were not included in the model. All of the independent factors significantly affect the dependent variable when considered collectively, as shown by the Prob (F-statistic) value of 0.002132, which is less than 0.05. With probability values of 0.0067 and 0.0016, respectively, the Company Size (UP) variable and Tax Aggressiveness (CETR) each have a notable impact on Tax Avoidance (Y_AF). The variables of Corporate Risk (DER), Audit Committee (KA), and Profitability (ROA) all have probability values greater than 0.05, indicating that they do not have a significant effect. This CEM test concludes that tax aggressiveness and firm size are the primary determinants of corporate tax avoidance.

An R-squared value of 0.999898, as determined by the Fixed Effect Model, indicates that the independent variables account for 99.98% of the variance in the dependent variable. With a Prob(F-stat) of 0.000000, it is clear that each of the independent variables matters. When it comes to tax avoidance, company size is the only meaningful determinant; all the others are insignificant.

The R-squared value of 0.440990 in the Random Effect Model (REM) indicates that the independent variables account for 44.09% of the variance in the dependent variable, with the remaining variance being impacted by other factors. There is a statistically significant relationship between the dependent and independent variables, as shown by the Prob(F-statistic) value of 0.000350, which is less than 0.05. Company Size (UP) has a significant effect on Tax Avoidance (Y_AF) with a probability of 0.0001, while the variables Profitability (ROA), Audit Committee (KA), Company Risk (DER), and Tax Aggressiveness (CETR) are insignificant because the probability is above 0.05. Company size is an important factor in tax avoidance, while other variables are not significant.

4.5 Mediation Model Selection Test

Table 7. Mediation Model Selection Test Results

Test	Prob.	Selected Model
Chow Test	0.0000	FEM
Hausman Test	0.9973	REM

Source: Processed data (2025)

The Chow test results show a probability value of 0.0000 < 0.05, so the model selected and most suitable for use in this study is the FEM. The Hausman test shows a probability value of 0.9973 > 0.05, so the selected model that is most appropriate for use in this study is the REM.

4.6 Hypothesis Testing (Mediation Model)

4.6.1 Partial Test (T-Test)

Table 8. T-Test Results (Mediation Model)

Variable	Prob.	Conclusion
Company Size (UP)	0.0001	Significant
Profitability (ROA)	0.2035	Not Significant
Audit Committee (KA)	0.1379	Not Significant
Company Risk (DER)	0.0592	Significant
Tax Aggressiveness (CETR)	0.2989	Not Significant

Source: Processed data (2025)

The t-test results show that the Probability Value for UP is 0.0001 < 0.05, meaning the Company Size (UP) variable has an effect on Audit Delay (AF). The Probability value for ROA is 0.2035 > 0.05, meaning the Profitability variable (ROA) does not affect Audit Delay (AF). The Probability Value for KA is 0.1379 > 0.05, meaning the Audit Committee (KA) variable does not affect Audit Delay (AF). The DER probability value is 0.0592 > 0.05, meaning the Company Risk (DER) variable affects Audit Delay (AF). The Probability value for CETR is 0.2989 > 0.05, meaning the Tax Aggressiveness (CETR) variable does not affect Audit Delay (AF).

4.6.2 Simultaneous Test (F-Test)

Table 9. F-Test Results (Mediation Model)

Prob(F-statistic)
0.000350

Source: Processed data (2025)

The probability value is 0.000350 < 0.05, which means that the variables of company size, profitability, audit committee, and company risk simultaneously affect Audit Delay (AF).

4.6.3 Coefficient of Determination (R^2)

Table 10. Coefficient of Determination Results (Mediation Model)

R-squared
0.440990

Source: Processed data (2025)

All X variables can explain the CETR variable by 0.44 or 44%, while the remaining 56% is explained by other variables.

4.7 Sobel Test Results

Table 11. Sobel Test Results

Path	t-Value	t-Table	Conclusion
Company Size (UP) → Tax Aggressiveness (CETR) → Profit Quality (Y_AF)	6.95	2.00	H_9 Accepted (Mediating)
Profitability (ROA) → Tax Aggressiveness (CETR) → Profit Quality (Y_AF)	0.83	2.00	H_{10} Rejected (Not Mediating)
Audit Committee (KA) → Tax Aggressiveness (CETR) → Profit Quality (Y_AF)	0.07	2.00	H_{11} Rejected (Not Mediating)
Company Risk (DER) → Tax Aggressiveness (CETR) → Profit Quality (Y_AF)	7.65	2.00	H_{12} Accepted (Mediating)

Source: Processed data (2025)

The Sobel test results indicate that the calculated t-value for Company Size (6.95) > t-table (2.00), therefore H_9 is accepted, meaning that the company size variable (UP) affects profit quality (Y_AF) through tax aggressiveness (CETR) as a mediating variable. The calculated t-value for Profitability (0.83) < t-table (2.00), therefore H_{10} is rejected, meaning that the Profitability variable (ROA) does not affect Profit Quality (Y_AF) through Tax Aggressiveness (CETR) as a mediating variable. The calculated t-value for Audit Committee (0.07) < t-table (2.00), therefore H_{11} is rejected, meaning that the audit committee variable (KA) does not affect earnings quality (Y_AF) through tax aggressiveness (CETR) as a mediating variable. The calculated t-value for Company Risk (7.65) > t-table (2.00), therefore H_{12} is accepted, meaning that the Company Risk (DER) variable affects earnings quality (Y_AF) through tax aggressiveness (CETR) as a mediating variable.

5. Conclusion

This study aimed to examine the influence of company size, profitability, audit committee, and company risk on earnings quality, with audit delay as a moderating variable and tax aggressiveness as a mediating variable. The research focused on healthcare companies listed on the Indonesia Stock Exchange (IDX) during the 2021-2024 period. Based on the results of data analysis, hypothesis testing, and discussion, the following conclusions can be drawn:

1) Company size has a significant positive effect on earnings quality. This indicates that larger healthcare companies tend to have better earnings quality because they possess more adequate resources for internal oversight and control, enabling them to produce more accurate and reliable financial reports. Thus, the first hypothesis (H_1) is accepted.
2) Profitability does not have a significant effect on earnings quality. This finding suggests that high profitability does not necessarily translate into better earnings quality, as profitable companies may still engage in earnings management practices to maintain their positive image. Thus, the second hypothesis (H_2) is rejected.
3) The audit committee has a significant positive effect on earnings quality. This indicates that an effective audit committee plays a crucial role in overseeing the financial reporting process, preventing profit manipulation, and enhancing the

credibility of financial reports in healthcare companies. Thus, the third hypothesis (H_3) is accepted.

4) Company risk has a significant negative effect on earnings quality. This finding demonstrates that companies with higher risk levels tend to have lower earnings quality, as they are more prone to aggressive earnings management practices and face greater uncertainty in financial reporting. Thus, the fourth hypothesis (H_4) is accepted.
5) Audit delay moderates the relationship between company size and earnings quality. Longer audit delays weaken the positive relationship between company size and earnings quality, as they provide management with opportunities to engage in earnings management. Thus, the fifth hypothesis (H_5) is accepted.
6) Audit delay does not moderate the relationship between profitability and earnings quality. The moderating effect of audit delay on this relationship is not significant, indicating that profitability's impact on earnings quality remains unchanged regardless of audit delay length. Thus, the sixth hypothesis (H_6) is rejected.
7) Audit delay moderates the relationship between the audit committee and earnings quality. Longer audit delays weaken the positive effect of the audit committee on earnings quality, as the oversight function becomes less effective when audits are prolonged. Thus, the seventh hypothesis (H_7) is accepted.
8) Audit delay moderates the relationship between company risk and earnings quality. Audit delay strengthens the negative relationship between company risk and earnings quality, meaning that longer delays exacerbate the detrimental effect of risk on earnings quality. Thus, the eighth hypothesis (H_8) is accepted.
9) Tax aggressiveness mediates the relationship between company size and earnings quality. Larger companies use tax aggressiveness as a channel to achieve profit targets, which in turn affects earnings quality. Thus, the ninth hypothesis (H_9) is accepted.
10) Tax aggressiveness does not mediate the relationship between profitability and earnings quality. The mediating effect of tax aggressiveness on this relationship is not significant. Thus, the tenth hypothesis (H_{10}) is rejected.
11) Tax aggressiveness does not mediate the relationship between the audit committee and earnings quality. The mediating effect of tax aggressiveness on this relationship is not significant. Thus, the eleventh hypothesis (H_{11}) is rejected.
12) Tax aggressiveness mediates the relationship between company risk and earnings quality. High-risk companies engage in tax avoidance as a survival strategy, which subsequently affects earnings quality. Thus, the twelfth hypothesis (H_{12}) is accepted.

The findings of this research provide several practical implications. Healthcare companies should strengthen their internal control systems and enhance audit committee effectiveness to improve earnings quality. Regulators should monitor audit delays closely, as prolonged delays can weaken the positive effects of company size and audit committees on earnings quality while exacerbating the negative effects of company risk. Investors should pay attention to company size, audit committee effectiveness, and tax aggressiveness when assessing earnings quality in the healthcare sector. Policymakers should consider the mediating role of tax aggressiveness in understanding how company characteristics influence earnings quality.

This study has several limitations. The sample is limited to healthcare companies listed on the IDX, which may not represent the entire healthcare sector in Indonesia, including unlisted companies. The observation period of 2021-2024 is relatively short, and future research should extend the observation period to capture longer-term trends.

Additionally, the study focused on specific variables, leaving room for other factors such as corporate governance mechanisms, ownership structure, and external economic conditions to be explored in future research.

Future research should expand the sample to include other sectors and unlisted companies to enhance the generalizability of findings. Comparative studies across different industries or countries could also provide valuable insights into how contextual factors influence the relationships examined in this study. Furthermore, future studies could incorporate additional moderating and mediating variables to develop a more comprehensive model of earnings quality determinants. Despite these limitations, this study contributes to the literature by providing empirical evidence on the roles of audit delay as a moderator and tax aggressiveness as a mediator in the relationship between company characteristics and earnings quality in the Indonesian healthcare sector.

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