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The Impact of ESG Factors on Firm Value with Profitability as a Moderator in the Healthcare Industry

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ABSTRACT

The healthcare industry faces increasing pressure to enhance firm value while complying with Environmental, Social, and Governance (ESG) standards. Environmental costs related to medical waste management, social accountability, and governance structures are critical issues for hospitals and laboratories listed on the Indonesia Stock Exchange. However, empirical findings regarding the effect of ESG factors on firm value remain inconsistent, particularly concerning the moderating role of profitability. This study aims to examine the effect of Environmental Sustainability Disclosure, Social Sustainability Disclosure, and Managerial Ownership on Firm Value proxied by Tobin's Q, with profitability (ROA) as a moderating variable. The research employs a quantitative approach using panel data from seven healthcare companies during 2019–2024. Data were analyzed using Moderated Regression Analysis (MRA) with EViews software. The results indicate that Social Sustainability Disclosure and profitability significantly influence firm value, whereas Environmental Sustainability Disclosure and Managerial Ownership do not have a direct significant effect. Profitability strengthens the relationship between Environmental Sustainability Disclosure and firm value but fails to moderate Social Sustainability Disclosure and negatively moderates Managerial Ownership. In conclusion, profitability plays a strategic moderating role, and social disclosures are more strongly valued by investors compared to environmental and governance factors in the Indonesian healthcare sector.

Keywords: Environmental Sustainability Disclosure; Social Sustainability Disclosure; Profitability.

INTRODUCTION

In addition to profit being measured as the company's main goal, an important factor that must be considered by the healthcare industry is the cost element, especially costs related to the concept of sustainability, including environmental costs. Based on the GRI (Global Reporting Initiative) 306 guidelines, organizations can cause waste-related impacts from their own activities. Referring to the Regulation of the Minister of Health of the Republic of Indonesia Number 18 of 2020 concerning Medical Waste Management of Region-Based Health Service Facilities, health service facilities, as places that carry out health service efforts, produce medical waste that has the potential to pose a risk of disease transmission and other health problems, as well as environmental damage, so it is necessary to carry out medical waste management. Environmental costs are costs that include all forms of expenses incurred by companies in order to prevent, minimize, and correct the negative impacts caused by operational activities on the environment (Suryadi & Nuryaman, 2025). Environmental costs also refer to costs arising from uncontrolled environmental damage (Fitria & Lestari, 2025). These costs include investments in sustainable technology, medical waste disposal, and energy initiatives. The purpose of environmental costs is to serve as a tool to enforce the sustainability of human businesses without damaging the environment, assess operating costs as a whole,

mitigate and address damages, ensure compliance with regulations, and understand the concerns of stakeholders (Sinaga et al., 2025). Based on the Regulation of the Minister of Health Number 18 of 2020, Article 10, concerning Medical Waste Management of Region-Based Health Service Facilities, it is stated that funding for Medical Waste Management of Region-Based Health Service Facilities is sourced from the state expenditure budget and other legitimate sources in accordance with the provisions of laws and regulations. However, based on the Regulation, it is also stated that there are other sources which come from the company's own funds. The implementation of environmental costs is a management effort in preventing environmental pollution caused by business activities carried out by the company, so that the impact caused by environmental aspects can achieve the target of "Zero Impact" or minimal impact (Apriandi et al., 2022). With the company's attention to environmental issues implemented through the allocation of environmental costs, it is hoped that this will provide a positive image for stakeholders. Thus, the company's valuation is expected to increase in terms of the appreciation and trust of stakeholders in the company (Apriandi et al., 2022). Therefore, the consideration of environmental costs arises from the need to understand waste management — specifically, how it is conducted and how significant its impact is, whether positive or negative on company value. In today's business environment, where environmental issues are quite prominent, many business industries are required to carry out sustainability-based business by implementing the Triple Bottom Line (TBL), namely people, planet, and profit. The Triple Bottom Line itself is the basis for companies to implement sustainable processes, which are mandatory for an organization to disclose and an important factor that must be taken into account by an organization (Azima et al., 2024; Kusumawardhany & Shanti, 2021; Hadiansyah et al., 2022).

In 1994, the Triple Bottom Line was first proposed by John Elkington, and in 1999, in his book Cannibals with Forks: The Triple Bottom Line of 21st Century Business, Elkington argued for the importance of a combination of profit, environment, and people in a business sphere. The public's expectations of the company's contribution to the environment gave rise to this concept, where a number of social and environmental events that occurred reflected a genuine need from the community (Leksono et al., 2022). In addition, TBL can also be used as a benchmark for businesses that not only consider the profit aspect, but also the impact on the environment and society. The concept of the Triple Bottom Line is commonly known as the 3Ps (Profit, People, and Planet). The meaning of profit is the economic gain obtained, while people refers to the company's responsibility for social aspects, and planet refers to the company's responsibility for environmental conditions (Haryanti, 2021). It can be concluded that the concept of TBL itself aims to orient management's business activities not only toward short-term profitability, but also toward long-term sustainability, which can ultimately affect the value of the company. The application of the TBL concept is expected to have an impact on stakeholder trust in the form of recognition and legitimacy from them. Therefore, the role of management must also consider, prevent, and manage the impact of the industry in which it operates. Environmental issues are an important consideration, especially for businesses that are closely related to the problem of environmental damage, including businesses in the healthcare sector, particularly hospitals and laboratories. The hospital and laboratory industry constitutes one of the vital sectors of the Indonesian economy, where the industry plays an important role in the sustainability of quality of life and public health. However, the role of

hospitals and laboratories in providing public health services also generates a significant volume of waste. By applying the TBL concept, companies are expected to carry out their operations by prioritizing sustainability, reducing negative impacts on the environment, and making a positive contribution to society (Pandin et al., 2023).

In social indicators, what is included in the ESG factor is how a company discloses its CSR (Corporate Social Responsibility) activities in its sustainability reports. Through the Financial Services Authority Regulation (POJK) Number 51/POJK.03/2017, it is required for LJK (Financial Services Institutions), issuers, and public companies to publish sustainability reports containing information on sustainability strategies, economic, social, and environmental aspects, as well as sustainable governance. The disclosure of CSR implementation in a company's sustainability report is also a benchmark indicating that the company has a sustainable commitment embedded in its business processes, including in the hospital and laboratory business sectors where environmental issues are particularly important due to the medical waste generated. Investing in ESG, after all, is not a direct cost component against income. Companies that are required to implement CSR programs must allocate a budget for the program and then disclose it in their financial statements (Aydoğmuş et al., 2022; Constantinescu, 2021; Butt et al., 2020; Besim, 2023; Bora Pandiany et al., 2025).

In the aspect of corporate governance, healthcare organizations must maintain clear management principles, transparency in the decision-making process, and effective oversight. In addition to the influence of environmental costs, one of the governance factors in ESG is managerial ownership (Listiana, 2023; Jian, 2025; Kartika, 2025; Asmara & Rahmawati, 2024; Erlyn & Triwacananingrum, 2024). Managerial ownership is the proportion of shareholders from management who effectively participate in the company's decision-making, such as directors and commissioners (Simanjuntak, 2025). Managerial parties must be aware that strong governance and services can improve financial performance and contribute to a sustainable future. Environmental disclosure through financial statements can help companies communicate information on the impact of the company's financial and non-financial activities to investors (Saputri et al., 2023). To improve the company's performance and ensure that managers act in the interests of shareholders, the company's management acquires shares in the company, a practice known as managerial ownership (Gesilda & Said, 2024). It is also explained in Royani (2020) that managerial ownership is a condition where the company's manager owns the company's shares, thereby becoming a shareholder and actively participating in decision-making. The structure of share ownership is also able to affect the running of the organization, which ultimately affects organizational performance, particularly in increasing organizational returns (Wangsa, 2023). Iwasaki & Mizobata (2020), as cited in Rahmawati & Garad (2023), explain that managerial ownership involves the separation of ownership between outside ownership and insider ownership. If a company has many shareholders, it is clear that this large group of individuals cannot actively participate in day-to-day management activities. Thus, strong governance practices are expected to minimize operational risks, as well as build sustainable corporate value for stakeholders including service users, employees, and investors. A correlation between sustainability reporting and company value has been previously identified in Asmara & Rahmawati (2024), namely that there are benefits that can serve as determining factors driving company performance, although the results of the study indicate

that sustainable reporting in Indonesia, especially in the health service sector, remains relatively low.

In addition to company value, profitability is also one of the goals of establishing a business, where an increase in profit will prosper the business owner. According to Munawir (2002), profitability is the ability of a company to generate profits over a certain period (Heliani et al., 2023). Profitability is an important element because it can reflect the return on financial investment, meaning that profitability affects the value of the company by increasing internal resources (Alida & Sulastiningsih, 2024). Many investors assume that the higher the profit of a company, the better the value of the company, which can in turn influence investor confidence in investing, because company value is an indication and assessment of the company's performance in reflecting the success of internal management. Companies with large asset growth usually perform well in generating profits, thereby increasing the company's value (Taufiq et al., 2025). Although the health industry is fundamentally service-oriented, it is undeniable that the industry is also profit-oriented. According to Kasmir (2019), companies with high profitability demonstrate promising future prospects, which can ultimately attract investors and increase business value (Wangsa, 2023). Profitability is thus a calculation metric used to determine the level of a company's ability to generate profit, which depends on management's ability to utilize its capital and assets (Meilina & Tjong, 2021).

This study aims to examine the effects of environmental sustainability disclosure, social sustainability disclosure, and managerial ownership on corporate value in the healthcare sector over the period 2019–2024, as well as the direct effect of profitability, proxied by Return on Assets (ROA), on corporate value. Furthermore, this study investigates the moderating role of ROA in the relationships between each of the three independent variables — environmental sustainability disclosure, social sustainability disclosure, and managerial ownership — and corporate value within the healthcare sector during the same period.

RESEARCH METHOD

This study employed a quantitative research method using the EViews 13 application program. The data collection method carried out was the collection of secondary data in the form of issuers' financial statements, obtained from the companies' official websites and the Indonesia Stock Exchange (IDX). Subsequently, population selection and sample determination were conducted based on characteristics that met the predetermined criteria. This study observed five variables divided into three independent variables (variable X), one dependent variable (variable Y), and one moderating variable (variable Z), which was used to examine the strengthening or weakening effect of variables X on Y. From the determination of these variables, hypotheses were then formulated.

The population in this study consisted of 14 companies in the health service sector listed on the Indonesia Stock Exchange, comprising 12 companies engaged in the hospital sector and 2 companies engaged in the laboratory sector. The sampling technique used prioritised sample representativeness, where samples were selected based on predetermined criteria, so that the results obtained could be generalised to the entire population. The sample criteria applied in this study were as follows: (1) healthcare sector companies engaged in hospitals and laboratories listed on the Indonesia Stock Exchange for the period 2019–2024; (2) hospital and laboratory sector companies that published sustainability reports on their official websites; and

(3) hospital and laboratory sector companies that conducted an Initial Public Offering (IPO) on or before 2019. Based on these criteria, the eligible sample totalled 7 companies, of which 6 were engaged in the hospital sector and 1 was engaged in the laboratory sector, as summarised in the following table.

Table 1 Selection and Determination Process of Research Samples of Hospital and Laboratory Sector Companies on the Indonesia Stock Exchange

No	Criteria	Quantity
1	Hospital and laboratory sector companies listed on the Indonesia Stock Exchange	14
2	Hospital and laboratory sector companies that do not publish sustainability reports	(0)
3	Hospital sector companies that conducted initial public offerings (IPOs) after 2019	(7)
Number of samples that meet the criteria		7

Source: Data from the Indonesia Stock Exchange, 2025. The data is processed by the author 2025.

Thus, the results of the sample list of selected companies in Table 2 are as follows:

Table 2 Research Sample

No	Stock Code	Company Name
1	HEAL	PT Medikaloka Hermina Tbk
2	MICAH	PT Mitra keluarga Karyasehat Tbk
3	PRDA	PT Prodia Widyahusada Tbk
4	PRIM	PT Royal Prima Tbk
5	SAME	PT Sarana Meditama Metropolitan Tbk
6	SILO	PT Siloam International Hospital Tbk
7	SRAJ	PT Sejahteraraya Anugrahjaya Tbk

Source: Data from the Indonesia Stock Exchange, 2025. The data is processed by the author 2025.

The data used in this study were secondary data collected in the form of financial statements and sustainability reports of issuers for the period 2019–2024, which were downloaded through the companies' official websites and the Indonesia Stock Exchange website, supplemented by data from other related and relevant sources.

In this study, multiple linear regression was employed, and the analysis and testing processes were carried out using EViews 12 software. The steps in the panel data regression analysis were as follows.

Descriptive Analysis

Descriptive statistical analysis was applied to determine the level of environmental cost ratios, CSR disclosures, and managerial ownership by considering the mean, maximum, minimum, standard deviation, and number of observations.

Inferential Analysis

The data used in this study were panel data, combining time series and cross-sectional data, and were analysed using regression analysis. Classical assumption tests were not required in the panel data regression, as EViews had conducted the Breusch-Godfrey Serial Correlation LM Test, White Heteroskedasticity Test, and Jarque-Bera Normality Test. In addition, R-squared, F-statistic, and t-statistic probability indicators were used to evaluate the suitability of the model.

Moderated Regression Analysis (MRA)

The Moderated Regression Analysis (MRA) method was used to determine whether Environmental Costs, CSR Disclosure, and Managerial Ownership had an effect on Company Value, with Profitability (ROA) serving as the moderating variable. The MRA equation used was as follows:

$$Y = \alpha + \beta1X1 + \beta2X2 + \beta3X3 + \beta4Z + \beta5(X1\times Z) + \beta6(X2\times Z) + \beta7(X3\times Z) + \varepsilon \quad (1)$$

Where:

Y = dependent variable; α = constant or intercept; β1–β7 = regression coefficients; X1–X3 = independent variables; Z = moderating variable; ε = error term.

The influence of variable Z in moderating the independent variables (X1, X2, and X3) was observed through the two-way relationship between Z and each of X1, X2, and X3 in predicting Y. The classification of the moderating variable followed Rahadi & Farid (2021), which identified four types: (1) Quasi Moderator, a variable that moderates the relationship between independent and dependent variables while also being able to act as an independent variable; (2) Pure Moderator, a moderation variable that purely moderates the relationship without functioning as an independent variable; (3) Predictor Moderation, where the moderating variable acts solely as an independent variable in the model; and (4) Homologizer Moderation, where the variable neither interacts with independent variables nor has a significant relationship with the dependent variable.

RESULTS AND DISCUSSION

Descriptive Statistics

Based on the results of descriptive statistical analysis of the variables CSRE (X1), CSRS (X2), KM (X3), TBQ (Y), and profitability proxied by ROA as a moderation variable (Z), it can be explained that each variable has a minimum, maximum, mean, and standard deviation values that describe the characteristics of the data of this study. The results of the descriptive statistical test on each variable are explained as follows:

Table 3 Descriptive Statistical Test Results of Research Variables

	TBQ	CSRE	CSRS	KM	ROA
Red	2.262828	0.332589	0.350595	0.737331	0.056946
Median	1.575153	0.421875	0.337500	0.751250	0.064404
Maximum	6.962087	0.968750	0.875000	0.945500	0.228659
Minimum	0.287865	0.000000	0.000000	0.405300	-0.150114
Std. Dev.	1.828756	0.306639	0.327709	0.143013	0.074051

Observations	42	42	42	42	42

Source: Data processing results using Eviews-13, 2026.

Minimum and maximum values

The variable of company value is measured using the TBQ ratio which has a minimum value of 0.287865 obtained by the issuer PT Royal Prima Tbk (PRIM), where the value of TBQ < 1, then it can be interpreted that PRIM has a market value lower than the cost of replacing its assets, indicated by an undervalued company, or low growth potential because it can be indicated that management can be considered a failure in managing its assets. Meanwhile, the maximum value of 6.962087 was obtained by the issuer PT Mitra Keluarga Karyasehat Tbk (MIKA) where the value of TBQ > 1. The value of the ratio can indicate that the value of the company is higher than the cost of replacing its assets, an indication that the company is overvalued) or has good growth prospects, and that management is considered to have successfully managed the assets, attracting investors to emulate its business model.

CSR disclosure on Environmental factors (CSRE) resulted in a minimum value of 0.000000 for issuers of PT Royal Prima Tbk (PRIM) and several issuers in 2019 – 2020 that did not disclose environmental factors in their sustainability reports. The highest disclosure value has a value of 0.96870 for issuer PT Prodia Widyahusada Tbk (PRDA) in 2023, with a ratio of almost 100%, indicating that PRDA almost fully discloses all sustainability indicators in environmental aspects. The results of the test revealed that not all object samples were consistent in making sustainability disclosures in their reports throughout 2019-2024.

CSR disclosure on Social factors (CSRS) resulted in a minimum value of 0.000000 on issuers of PT Royal Prima Tbk (PRIM) and several issuers in 2019 – 2020 that did not disclose social factors in their sustainability reports. The highest disclosure value has a value of 0.8750000 for issuers PT Prodia Widyahusada Tbk (PRDA) in 2023, with a fairly high ratio, indicating that PRDA almost fully discloses all sustainability indicators in the social aspect. The results of the test also revealed that not all object samples were consistent in making sustainability disclosures in their reports throughout 2019-2024.

The variable managerial ownership (KM) produced a minimum value of 0.405300, namely in the issuer PT Medikaloka Hermina Tbk (HEAL) and the highest value was 0.945500 in the issuer PT Sejahteraraya Anugrahjaya Tbk (SRAJ) which means that almost 100% of the shares owned by the issuer are managerial property.

Meanwhile, the profitability variable proxied by ROA (Return on Asset) has a minimum value of -0.150114 and a maximum value of 0.228659. The considerable range of values reflects the difference in the results of the company's performance in managing its assets. The results of the test indicate that the higher the ratio, the better the company's performance in managing assets to generate profits for the company. In the two test results, the lowest ROA value was in the issuer PT. Sarana Meditama Metropolitan Tbk (SAME) in 2020 due to losses due to a decrease in the value of fixed assets. This is also due to the impact of the Covid-19 outbreak that year which caused significant losses to the company due to high operational costs. Meanwhile, the highest value was for the issuer PT Prodia Widyahusada Tbk (PRDA) in 2021. This was due to the peak of the Delta variant of Covid-19 outbreak that year which caused many patients and the obligation to test *swabs* from the Ministry of Health before people were active. These activities had an impact on increasing PRDA's net profit that year. In that year,

the value of PRDA's shares also increased sharply from Rp. 3,250 per share at the end of 2020 to Rp. 9,200 per share at the end of 2021.

Average values and standard deviations

The mean value of the company's value proxied by Tobins's Q (TBQ) is 2.262828 with a standard deviation value of 1.828756. Standard deviation values that are smaller than the mean indicate that the TBQ data tested is more homogeneous, the data is more consistent and the existing values do not deviate too much from each other, meaning that the data tend to be less varied because the standard deviation value is smaller than the mean.

The sustainability disclosure variable in environmental factors (CSRE) has a mean value of 0.332589 and a standard deviation of 0.306639. In this variable, the mean value is greater than the standard deviation value, which means that sustainability disclosures on the company's environmental factors are more homogeneous and less varied.

The sustainability disclosure variable in social factors (CSRS) has a mean value of 0.350595 and a standard deviation of 0.327709. In this variable, the mean value is greater than the standard deviation value, which means that sustainability disclosures on the company's environmental factors are also more homogeneous and less varied.

The managerial ownership variable shows a mean value of 0.737331 and a standard deviation of 0.143013. In this variable, the mean value is greater than the standard deviation value, which means that the managerial ownership value of the tested data also shows a homogeneous nature and tends to be consistent.

In the moderation variable measured by the Return on Asset proxy, the mean value is 0.056946 and the standard deviation is 0.074051. These values indicate that the average ROA tends to be high with profitability variations that tend to be low, which indicates that the performance data of the companies tested is more likely to be consistent.

Panel Data Regression Analysis Results

Test Panel Data Regression Model

Fixed Effect Model

The first step is to process data using the Fixed Effect Model (FEM) approach which aims to compare the method with the Common Effect Model (CEM) method, as well as to find out the correct estimate on the Chow test.

Chow Test

The chow test is used to find out which model is better between the Common Effect Model (CEM) and the Fixed Effect Model (FEM). The hypothesis in the Chow test is:

H0 : Common Effect Model (CEM), which is the probability value of cross section F > 0.05

Ha : Fixed Effect Model (FEM), which is the probability value of cross section F < 0.05

With the criterion that if the value of sig>0.05, then H0 is accepted and if sig < 0.05 then Ha is accepted.

Based on the results of the Chow test, the significance value of the chi-square cross section is 0.0000 and the F cross-section is 0.0001 (<0.05), so that H0 is rejected and Ha is accepted. So, the right estimation model to use is the Fixed Effect Model (FEM) panel data regression. Based on the Chow test, the test that can be tested by the next data can be continued with the Hausman Test.

Hausman Test

The Hausman test is used to find out which model is better between the Random Effect Model (REM) and the Fixed Effect Model (FEM). The significance of the test results in the Hausman test is determined by the value (p-value) which serves as the basis for indicating whether the hypothesis is zero or not. The hypothesis on the Hausman test is that if sig>0.05 then H0 is accepted and if the value is sig<0.05 then Ha is accepted. The basis for the assessment of the Hausman test hypothesis is on the value of cross-section probability (Prob) with the following conditions:

H0 : Random Effect Model with prob value > 0.05

Ha : Fixed Effect Model with prob value < 0.05

From the results of the thirst test analysis above, it can be obtained that the probability value of 0.9198 is greater than (>0.05). So that statistically H0 is accepted and Ha is rejected, then the right model in the data panel above is the Random Effect Model (REM). With the results of the Hausman test above, it shows that the results of the model that are more appropriate to use are the Random Effect Model (REM), so the test can be continued directly to the Lagrange Multiplier (LM) Test.

Lagrange Multiplier (LM) Test

The Lagrange Multiplier (LM) test is carried out after the Chow test. The purpose of this LM test is to determine the most appropriate estimation model between the Common Effect Model (CEM) and the Random Effect Model (REM). The hypothesis of this model selection is:

Ho: The appropriate model is the Common Effect Model (CEM)

Ha: The appropriate model is the Random Effect Model (REM)

With the following criteria:

H0 is accepted if the significance value > 0.05

Ha is accepted if the significance value is < 0.05

Based on the Lagrange Multiplier (LM) test shown in the table above, it is known that the probability value of the Breusch-Pagan LM is 0.0000 (<0.05) which means that H0 is rejected and Ha is accepted. So the model that is chosen and the most appropriate is the random effect model (REM). Of the three tests above, the most appropriate model is the Random Effect Model (REM).

The Fixed Effect Model (FEM) was selected once, namely in the Chow test, while the Random Effect Model (REM) was selected twice, namely in the Hausman Test and the Lagrange Multiplier Test. Therefore, it can be concluded that the most appropriate panel data regression model to use is the Random Effect Model (REM).

Moderated Regression Analysis (MRA)

From the results of the panel data analysis test, the selected regression analysis test approach method is the Random Effect Model (REM). The next test carried out was the Moderated Regression Analysis (MRA). The MRA test was conducted to see how the moderation variable affects the relationship between independent (free) and dependent variable (bound). The moderation variable is used to see if there is an influence that strengthens or weakens the relationship between the two. In the data processing carried out using the Eviews 13 application, there are the following results**.**

From the results of MRA regression, the following equation was obtained:

TBQ = 0.745941352334 - 1.0971845038*D(CSRE) + 2.21470953562*CSRS - 2.95674059253*D(KM) + 10.5823196841*LONG + 48.5756415794*CSRE_ROA - 22.1698782158*D(CSRE_ROA) - 90.2984664753*KM_ROA

The equation shows the relationship between the independent variables proxied Environmental Sustainability Disclosure (CSRE), Social Sustainability Disclosure (CSRS), and Managerial Ownership (KM) to the Company Value proxied with Tobin's Q Ratio moderated by Return on Asset (ROA).

The constant obtained in the dependent variable (TBQ) is 0.7459, so it can be interpreted that if the independent variable increases in one unit on average, then the dependent variable also increases by -28.0403. This means that if the sum of the values of the independent variables Environmental Sustainability Disclosure, Social Sustainability Disclosure, and Managerial Ownership is 0 (zero), then the Tobin's Company Q Value level is -28.0403. The value of a positive constant indicates that there is a unidirectional relationship between an independent variable and a dependent variable.

The results of the regression test on the Environmental Sustainability Disclosure (CSRE) variable showed a negative coefficient value of -1.0971, which can be interpreted if the CSRE variable is -1.0971, then the value of the company proxied by Tobin's Q also decreased by -1.0971, and vice versa. The probability value obtained is 0.3536, which shows the result of prob >0.05 and can be interpreted that the CSRE variable does not have a significant effect on the TBQ variable. The negative coefficient suggests that increased sustainability disclosure tends to lower the value of TBQ, but the effect is not statistically significant.

In the Social Sustainability Disclosure (CSRS) variable in the regression test shows a positive value of 2.2147, it can be interpreted that if the CSRS variable increases, the TBQ variable will also increase by 2.2147, and vice versa. The probability value obtained is 0.0348, which shows the result of the prob <0.05 and it can be interpreted that the CSRE variable has a significant effect on the TBQ variable.

In the Managerial Ownership (KM) variable in the regression test shows a negative value of -2.9567, it can be interpreted that if the KM variable increases, the TBQ variable will also increase by -2.9567, and vice versa. The probability value obtained is 0.1841 which shows the result of prob >0.05 and it can be interpreted that the KM variable does not have a significant effect on the TBQ variable.

The moderation variable Z proxied by Return on Asset (ROA) has a regression coefficient value of 10.5823, so it can be interpreted that if the ROA increases, the TBQ will also increase by 10.5823, and vice versa. The probability value obtained is 0.0099 which shows the result of prob <0.05 and it can be interpreted that the ROA variable has a significant effect on the TBQ variable.

The interaction between the CSRE and ROA variables (CRSE×ROA) had a regression coefficient value of 48.57564 with a probability value of 0.0278 (<0.05). With this probability value, it indicates that ROA can moderate the influence of CSRE on TBQ in a significant positive way.

On the other hand, the value of the regression result between the CSRS and ROA variables (CSRS×ROA) has a regression coefficient value of -22.16988 with a probability value of 0.2775 (>0.05), so it can be concluded that the regression value is negative and insignificant to

the TBQ variable. It can be interpreted that ROA is not able to moderate the relationship between CSRS and TBQ.

Meanwhile, the interaction between KM and ROA (KM×ROA) has a regression coefficient of -2.1735 with a probability value of 0.0370 (<0.05), which indicates that ROA negatively and significantly moderates Managerial Ownership of TBQ.

Hypothesis Test

The regression of the random effect model (REM) panel data related to the results for the F (simultaneous) and coefficient determination (R2) tests can be seen in table 4 below:

Table 4 REM Regression for F and R2 Test Results

Weighted Statistics			
R-squared	0.505587	Mean dependent var	2.296698
Adjusted R-squared	0.400712	S.D. dependent var	1.838089
S.E. of regression	1.422933	Sum squared resid	66.81634
F-statistic	4.820837	Durbin-Watson stat	1.755945
Prob(F-statistic)	0.000802		

Source: Data processing results using Eviews-13, 2026.

Simultaneous Test (F)

Simultaneous testing (F test) is a part of the test that aims to find out whether independent variables can affect dependent variables simultaneously or together in one model. From table 4.7 above, the F-statistic value is 4.820837. Based on the results of the regression estimation, it is known that the number of observations used in this study is 41 observations (included observations = 41). The regression model used consists of 7 independent variables, namely D(CSRE), CSRS, D(KM), ROA, CSRE_ROA, D(CSRS_ROA), and KM_ROA, with one constant. The degree of freedom in simultaneous tests (F-tests) is determined based on the number of independent variables and the number of observations. Therefore, the degree of freedom of the numerator (dF1) is set at 7, according to the number of independent variables in the model.

Meanwhile, the degree of freedom of denominator (dF2) is obtained by subtracting the number of observations by the number of independent and constant variables, so that dF2 = 41 − 7 − 1 = 33 is obtained. Thus, the F test in this study uses dF1 = 7 and dF2 = 33 at a significance level of α = 0.05. The indicators of acceptance or rejection of the hypothesis are:

If F-calculates > F-table then H0 is rejected and H1 is accepted

If the probability value is < 0.05 then H_0 is rejected and H1 is accepted

It is known that the results of the F simultaneous test, the F-statistic value is 4.8208 with a Prob (F-statistic) value of 0.0008 (<0.05), so it can be concluded that the independent variables CSRE, CSRS, KM, and ROA have a positive value and have a significant effect on the company value variable (TBQ).

T test (Partial test)

The partial test (t-test) is used to show the influence of independent variables on the dependent variable partially. Hypothesis testing in the t-test is carried out by comparing the t-calculated value to the t-table.

The test requirement for t-test is to compare the value of t-count against the t-table with the following hypothesis:

1. If t-calculate < t-table or probability value > 0.05, then H0 is accepted. This indicates that independent variables do not show a partial influence on dependent variables.
2. If t-calculate > t-table or probability value < 0.05, then H0 is accepted. This indicates that the independent variable has a partial effect on the dependent variable.

The t-table value is calculated using a significance level of 0.05 (5%) and a dF value of 33 (dF2 = 41 − 7 − 1 = 33) so that a t-table value of 2.034 is obtained, it can be concluded that variables that have a t-calculated value greater than the t-table are declared to have a significant effect on the dependent variable, while variables with a t-calculated value smaller than the t-table are declared to have no partial significant effect.

Based on the regression results in table 4.8, the Environmental Sustainability Disclosure (CSRE) variable has a t-calculated value of -0.9408 with a probability value (significance) of 0.3538 (>0.05) which means that the CSRE variable has a negative value and has no significant effect on the Company Value (TBQ) variable.

In the CSRS variable, the regression value in the t-test showed a t-calculated value of 2.2019 with a prob (significance) value of 0.0348 (<0.05) which means that the Social Sustainability Disclosure has a positive value and has a significant effect on the company value variable (TBQ).

In the KM variable, it is known to have a t-Statistic value of -1.3567 with a prob (significance) value of 0.1842 (>0.05) which means that the Managerial Ownership variable has a negative value and does not have a significant effect on the Company Value (TBQ).

In the results for the Z moderation variable (ROA), the value is known to have a t-Statistic value of 2.7361 with a prob (significance) value of 0.0099 (<0.05) which means that the ROA has a positive value and has a significant effect on the Company Value variable (TBQ).

In the interaction variable (relationship) moderation, the correlation test between the CSRE_ROA variable showed a t-calculation result of 2.301688 with a probability value of 0.0278 (<0.05). The results can be interpreted that the Z variable proxied by ROA is able to moderate the influence between CSRE on TBQ in a positive and significant way.

In the CSRS_ROA moderation relationship, there is a t-calculated result value of 2.301688 with a probability value of 0.2775 (>0.05). The results of the test can be interpreted that ROA cannot moderate the relationship between the influence of CSRS on TBQ.

Furthermore, the moderation relationship between KM_ROA has a t-calculation result value of -2.173511 with a probability value of 0.0370 (<0.05). The results of the test can be interpreted that ROA has a significant negative effect on the TBQ variable.

The Effect of Environmental Sustainability Disclosure on Company Value.

The results of the study show that Environmental Sustainability Disclosure does not have a significant effect on the company's value. These findings suggest that even if a company has made a sustainability disclosure, the information may not necessarily affect the company's value directly. Based on a theoretical perspective, this implementation should be in line with GRI 306 and the Indonesian Minister of Health Regulation No. 18/2020, medical facilities must disclose environmental factors in their sustainability reports. This reflects a commitment to sustainability and is expected to influence the company's value through stakeholder trust and legitimacy. Based on the stakeholder theory initiated by Edward Freeman in 1984 which states

that this theory explains organizational management and business ethics. As well as the Theory of Legitimacy initiated by Dowling & Pfeffer (1975) in Rofi'ah (2024) which emphasizes that a company must continue to strive so that they can be considered operating within the limits of societal norms so that they are considered legitimate by outsiders. In a sense, the operation of the company should be compliant with the applicable regulations in the community. However, in practice, environmental sustainability reporting is not a factor that affects investment decisions, because the form of reporting tends to be about the company's compliance with regulations rather than the long-term vision of creating company value. Based on the test results, the first hypothesis (H1) was rejected.

The results of this study are in line with previous research by Steven (2025), where CSR has no effect on company value, which is caused by several phenomena, namely: investors' tendency to buy shares, low CSR disclosure in manufacturing companies in 2023-2024, as well as CSR variables that cannot be measured directly and several mining companies in 2023-2024 are classified as impressive companies. However, the results of another study by Pramono., et al (2022) suggest that corporate social responsibility (CSR) has a positive impact on company value. Therefore, when the social and environmental performance increases, the company's share price also increases, which means that the company's value also increases.

The Effect of Social Sustainability Disclosure on Company Value

The results of the data test showed that Social Sustainability Disclosure had a significant positive effect on the company's value. Similar to the previous variable, the relevant theoretical foundation is stakeholder theory explained in Titani & Susilowati (2022), which states that stakeholder theory is a theory about the organizational concept of management and business ethics in a company based on morals and values in regulating the organization, and the theory of legitimacy in Gunawan., et al, (2025) which provides the basis that companies must comply with the applicable regulations in society related to business activities carried out by the company so that they can run well without conflicts in the community and in the environment where they operate. Thus, the second hypothesis (H2) in this test is declared accepted.

The results of this study are in line with previous research by Pramono et., al (2022) which stated that Environmental Sustainability Disclosure in CSR reports has a significant positive impact on Company Value. This is also strengthened by the results of research by Erawati & Cahyaningrum (2021) which stated that environmental sustainability disclosure has a significant positive effect. This means that the wider the scope of the company in disclosing sustainability as a form of compliance with social responsibility, the better the company's value for the investor's perspective.

The Effect of Managerial Ownership Disclosure on Company Value

The results of the test on the variables of managerial ownership on the company's value show that the relationship between these variables is negative and there is no significant influence. According to agency theory initiated by Meckling (1976) in his paper entitled "Theory of the firm: Managerial behavior, agency costs, and ownership structure", explained in Puspitaningrum & Indriani (2021) where this theory describes the relationship between two parties, including the agent and the principal. The relationship between the theory and variables functions to analyze and minimize conflicts between principals and agents, design effective contracts to align goals and incentives, and create and encourage investor confidence that the

company's managerial will be carried out in their interests. In this test, the third hypothesis (H3) was rejected.

The results of this test are in line with the results of research by Royani (2020) who stated that managerial ownership has no effect on Company Value. This is because there are indications that agency theory cannot minimize the occurrence of agency problems, because managers have a share in different interests from investors. While the results of research by Gunawan et., al (2024) state that managerial ownership affects the value of the company, this can be indicated that the company maintains a good relationship with Stockholders through an increase in the stock price and company value.

The Effect of Profitability (ROA) on Company Value

The results of the statistical test show that there is a significant positive influence between the profitability proxied by ROA (Return On Asset) on the Company's Value. This shows that there is a relationship between assets and company values. Based on the perspective of Signaling Theory (Ross, 1977), Signaling Theory is a theory that provides signals to investors through accurate information so that investors are interested in investing, where investors should be able to read the company's compliance indicators based on the disclosure. It can be interpreted that the fourth hypothesis (H4) is declared accepted.

The results of this study are in line with the research by Hasanah et., al (2023) where it is concluded from the study that the higher the profitability ratio, the better the company's value. Research by Reza & Hanifah (2025) also concludes that profitability has a positive effect on company value even though it is not significant. The results of this study are also in line with research by Taufiq et., al (2025) which states that companies with low profitability are described as companies with the largest operating costs distributed by the number of liabilities, so a higher profitability ratio will have an impact on the company's efficiency by allocating assets as operational costs and increasing net profit. It can be interpreted that ROA can directly reflect how effectively a company delivers healthcare by leveraging their assets, which are core assets and capital. Investors typically respond more strongly to profitability metrics compared to non-financial disclosures.

The Influence of ROA in Moderating Environmental Sustainability Disclosure on Company Value

The results of the test on the ROA moderation variable on the effect of Environmental Sustainability Disclosure on Company Value showed that the interaction between CSRE and ROA had a significant positive effect. This means that ROA can moderate positively and significantly, and the fifth hypothesis (H5) is asked to be accepted.

The results of the test indicate that the level of profitability can strengthen the influence of environmental sustainability disclosure on company value. According to signaling theory, the higher the ROA value, the better the company's indication of utilizing its assets to increase profits. Because, when the company's profitability value is high, it means that the company can prove that their performance is going well, then the Sustainability Disclosure signal becomes more credible information for investors. which means also an indication of positive signals to investors to determine investment decisions.

The results of this study are in line with previous research by Putri & Susanti (2023), where profitability can moderate the relationship between environmental performance and company value, so that the hypothesis can be accepted. It can be interpreted that if the influence

of environmental performance is strengthened by increasing profits, then this can show the ability of management performance so that it can directly increase the value of the company.

The Influence of ROA in Moderating Environmental Sustainability Disclosure on Company Value

The test results on the ROA moderation variable on the effect of Social Sustainability Disclosure on Company Value, ROA was unable to moderate the influence of CSRS positively and significantly on Company Value. Therefore, the sixth hypothesis (H6) which states that ROA can moderate the relationship between the influence of Environmental Sustainability Disclosure on company value is stated to be rejected.

According to the signaling theory previously mentioned, an increase in ROA can be an indicator or signal to investors regarding the condition of the company, including the company's value. The results of this study are not in line with the results of previous research by Intihanah (2023) where the results obtained are not consistent due to the existence of standard standards for each entity studied. This is contrary to the results of previous research by Azima (2024) which stated that ROA can moderate the relationship between CSR and company value.

The Influence of ROA in Moderating Managerial Ownership on Company Value

The test results on the ROA moderation variable on the influence of Managerial Ownership on Company Value, that ROA has a significant negative value. Therefore, the seventh hypothesis that there is a positive influence of ROA in moderation is rejected. Based on agency theory, managerial ownership aligns the interests of managers with shareholders, reducing agency conflicts. According to classical theory, the classical theory (Jensen & Meckling) states high managerial ownership reduces agency conflicts and increases value. In the healthcare sector, where operational complexity is high, stronger governance is essential.

Managerial ownership is expected to affect a company's value because managers with shareholding tend to make decisions that maximize long-term value. In the test results, the seventh hypothesis (H7) was rejected.

The results of this study are in line with the results of previous research by Haridansyah et., al (2022) which stated that managerial ownership has no effect on company value. Some studies have found that there is no significant effect of managerial ownership on company value, but profitability has a positive effect on company value. The following is explained in the previous research that the low share price owned by the management resulted in the management not feeling that they had a share in the company so that profits could not be obtained optimally.

CONCLUSION

Based on panel data regression testing conducted on the hospital and laboratory sub-sector of the healthcare industry for the period 2019–2024, the study found that Social Sustainability Disclosure and profitability proxied by ROA each had a significant effect on Company Value, while Environmental Sustainability Disclosure and Managerial Ownership did not. With respect to the moderating role of profitability, ROA was found to successfully moderate the relationship between Environmental Sustainability Disclosure and Company Value, as well as the relationship between Managerial Ownership and Company Value; however, it failed to moderate the relationship between Social Sustainability Disclosure and

Company Value. In light of these findings, future research is recommended to broaden the scope by incorporating additional sub-sectors within the healthcare industry, extending the observation period, and exploring alternative moderating or mediating variables — such as firm size, leverage, or board characteristics — in order to yield more comprehensive and generalisable insights into the determinants of company value in the healthcare sector.

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