CSR DISCLOSURE AS A MODERATOR FIRM VALUE: A STUDY ON ENERGY SECTOR MANUFACTURING COMPANIES

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ABSTRACT
Investors' evaluation of a company's performance and prospects is reflected in its value. This study looks at how financial performance metrics, including firm size, profitability, leverage, and business operations, affect the value of energy businesses listed on the Indonesia Stock Exchange (IDX) between 2014 and 2022. Additionally, it looks into whether disclosure of corporate social responsibility (CSR) acts as a moderating element in these interactions. The study uses R-Studio software's panel data regression analysis with data from 28 companies, for a total of 224 observations. The findings suggest that whereas leverage, company size, and business operations do not significantly affect firm value, profitability does. Furthermore, there is no moderating effect of CSR disclosure on the association between business value and these financial performance metrics.
Keywords: Profitability, Leverage, Company Size, Corporate Activities, CSR, Firm Value

1. INTRODUCTION

In the globalization era, the number of companies emerging has increased significantly, encouraging investors to channel their capital into the stock market. Today's business competition is shaped by various elements, including economic trends, political dynamics, and technological progress. To remain competitive and achieve excellence, companies must continuously innovate in the products or services they offer while ensuring the stability of their operational environment. Financial performance data of publicly listed companies can be accessed through the Indonesia Stock Exchange (IDX), which represents diverse sectors such as agriculture, energy, basic materials, chemicals, among others.

To ensure sustainability, companies must possess a competitive edge compared to their rivals. A company's value reflects investors' perceptions of the company. Firms that demonstrate lower risk and strong growth prospects generally receive more favorable assessments. Prior to investing, it is essential for investors to thoroughly evaluate prospective companies, ensuring the information relied upon is both credible and accurate. Company value highlights how effectively a firm gathers, manages, and utilizes its financial resources, and serves as a key indicator of its financial well-being over specific periods (Brigham & Houston, 2018; Vuong, 2022).

Based on the Indonesia Stock Exchange (IDX), the energy sector encompasses businesses engaged in selling goods and services derived from energy extraction activities, particularly fossil fuels. Consequently, the revenue streams of this sector are highly sensitive to global energy price fluctuations. This research specifically examines the energy sector over the period from 2014 to 2022, a time when this sector experienced substantial growth in stock index performance. This growth suggests that companies within the energy sector possess strong corporate value. In evaluating company value, this study employs the Q Ratio as the primary measurement tool.

Table 1.1
Tobin's Q on Energy Sector Companies

Yes	Code	Company	Tobin Q		
			2020	2021	2022
1	ADRO	Adaro Energy Indonesia Tbk.	0,89	1,08	1,12
2	AKRA	AKR Corporindo Tbk.	1,09	1,22	1,55
3	EARTH	Bumi Resources Tbk.	1.42	1.19	1.60
4	GEMS	Golden Energy Mines Tbk.	1,88	4,59	2,85
5	HRUM	Harum Energy Tbk.	2,76	2,50	1,32
6	INDY	Indika Energy Tbk.	0,94	0,91	0,88
7	MEDC	Medco Energi Internasional Tbk	0,98	0,93	0,98
8	MYOH	Samindo Resources Tbk.	1,48	1,80	1,45
9	PTRO	Petrosea Tbk.	0,82	0,80	0,97
10	TOBA	TBS Energi Utama Tbk.	0,89	1,12	0,88

Source: Indonesia Stock Exchange

According to Sari (2021), Kartika (2021), Haknuh (2022), Suryahadi (2022), Melani (2023), and Mahardhika (2022), energy sector companies are good to invest in due to the increase in stock prices in the energy index throughout 2021 and 2022. However, Table 1.1. There is a phenomenon in the valuation of a company using the Q Ratio, where in 2021 companies with BUMI, HRUM, INDY, MEDC and PTRO indices and in 2022 companies with BBRM, GEMS, HRUM, INDY, MYOH and TOBA indices experienced a decrease in value.

There are a number of indicators that shape a company's valuation when looking at an investor's assessment of it. The first factor is the Company's financial performance using the profitability ratio, where this ratio is used to compare the ability of the business to generate profits from assets, equity, and sales. The profitability ratio is very attractive to shareholders because it is the result of the shareholder's investment efforts and the returns to which shareholders are entitled. (Hapsoro & Falih, 2020)

According to Chairunnisa (2019), a positive number of assets (ROA) indicates that the assets used for business operations generate profits, which indicates that the company has the ability to generate profits from the business. Therefore, if you have a high ROA, there is a high chance that the value will increase quickly. This is in line with the findings of several researchers, such as Alqatan, Chbib, & Hussainey (2019); Dang, Vu, Ngo, & Hoang (2019); and Fadli (2022) who found that profitability increases firm value. On the contrary, the findings from the research of Al-Nsou & Al-Muhtadi (2019); Veeravel, Panda, & Balakrishnan (2023) and Vuong (2022) show that profitability decreases the value of a company.

The second factor is leverage, where this ratio is the company's policy on financing the company using or using funds based on debt. Each company has a different debt structure. Because of this difference, there is an inverse relationship between the company's value and leverage. According to Hayes (2023), the concept of leverage is where by using leverage, investors assume to increase the profits offered at the time of investment. As for companies, leverage is assumed to finance assets by using borrowed capital to invest in business activities whose purpose is to add value to shareholders.(Ispriyahadi & Abdulah, 2021)

The value of a company is inversely proportional to leverage. Higher debt levels and lower asset efficiency can lead to a company's performance declining. This is proven by several researchers as in research and where leverage is negatively related to the value of the company. While the results are from research, and differ where leverage is positively related to the value of the company. (Asghar, Sajjad, Shahzad, & Matemilola, 2020) (Al-Slehat, 2020)(Danso &

Lartey, 2021)(Menacer, Saif-Alyousfi, & Ahmad, 2020)(Al-Nsou & Al-Muhtadi, 2019)(Sari & Witjaksono, 2021)

The third factor is firm size, where this factor reflects the high commitment of a company to improve its performance, so investors are interested in investing more because investors believe they will get more returns from the company. The size of the company can be used as a benchmark for the opportunity of risks that may arise in various situations so that the more investors and organizations that participate in the company, the higher the stock price.(Sari & Witjaksono, 2021)

Since large assets show favorable signals, this will attract investors to invest in the company. This will cause the stock price and its value to increase. Some previous researchers, such as; and has used this company size to show that the company size is capable of increasing the value of the company. While the results of the research ; and different where size has a negative effect on the value of the company. (Al-Slehat, 2020) (Dang, Vu, Ngo, & Hoang, 2019)(Hapsoro & Falih, 2020)(Azaro, Djajanto, & Sari, 2019)(Castro, Ramírez , & Escobar, 2021)(Emanuel & Rasyid, 2019)

The last factor is the company's activities, where this ratio can help consider how the company's management can handle the company's inventory. This ratio is a company's measurement of how it runs inventory management, which is access to operational smoothness and overall fiscal health. TATO can show the company's ability to use assets in running its business. If the asset turnover is carried out maximally, it means that the company is more efficient in applying its assets in running its business.(Keton, 2020)(Aisya & Purwantini, 2022)

If a company is able to manage its assets effectively, it can give investors a good signal because it shows that the company is able to optimize the benefits of its assets. Research results of Fadila, Burhanudin, and Muhdin (2023); Ismail (2020) and Santosa, Aprilia, and Tambunan (2020) show that business activities have a positive impact on business value. However, the results of the research of Aisya & Purwantini (2022); Azaro, Djajanto, & Sari (2020) and Hapsoro & Falih (2020) show that business activities have a negative impact on business value.

In this study, Corporate Social Responsibility (CSR) disclosure was used as a moderation variable. In order for CSR information to be considered positive by investors, the company must execute it well and disclose it in detail. In Indonesia, the legal basis for CSR has been regulated in Law No. 40 of 2007. The assessment of company performance measurement (PROPER), especially energy sector companies in environmental management, where this assessment is recorded in the Regulation of the Minister of Environment and Forestry Number 1 of 2021, where companies that carry out business activities in the field of natural resources such as energy sector companies must implement their obligations. So CSR is not only an option, but also a must for energy sector companies in running their businesses.(Sasongko, Alipudin, & Uria, 2019)

One of the main goals of implementing CSR programs is to protect the company's image and good reputation to the public so that it will affect the increase in firm value. According to Hannawanti & Naibaho (2021); Hapsoro & Falih (2020); Hendratama & Barokah (2020) and the results of their research show that CSR is able to moderate profitability to firm value, but there is a difference in the results of research from Sutanto & Hariadi (2023) stating that CSR is not able to moderate profitability and firm value.(Vuong, 2022)

2. LITERATURE REVIEW

2.1 Firm Value

The way that investors view a company's success and prospects for future expansion is reflected in its value. Price to Book Value (PBV) and Tobin's Q are typically used as stand-ins for firm value. In this study, Tobin's Q is used to measure business value. Brigham and Daves (2013) assert that business value, which stands for wealth maximization, is a significant signal for shareholders. Environmental hazards and regulatory changes can have a significant impact on valuation in the energy sector.

2.2 Profitability

A company's ability to turn a profit in relation to its revenue, assets, or equity is measured by its profitability. According to research by Sudiyatno et al. (2020), increased profitability frequently leads to a favorable market reaction, which raises the company's worth. Standard measures of profitability include Return on Equity (ROE) and Return on Assets (ROA). Since the ROA ratio shows how well a company's financial performance works, I utilize it to gauge profitability in this study. Changes in commodity prices make profitability a crucial consideration, particularly for energy industries.

2.3 Leverage

The degree to which a company finances its activities through debt is indicated by its leverage. According to Modigliani and Miller's (1958) theory, capital structure is meaningless in a perfect market; but, in reality, leverage can impact how risk is perceived and, in turn, company value. Particularly in capital-intensive industries like energy, high leverage might indicate financial trouble and lower firm value (Jensen & Meckling, 1976). The DER ratio is used in this study to quantify business leverage.

2.4 Company Size

Juridically, Law of the Republic of Indonesia Number 20 of 2008 classifies business actors into four categories, namely micro businesses owned by individuals, small businesses that are run independently by individuals, medium businesses that are also carried out individually but have business income exceeding one billion rupiah, and large businesses managed by business entities.

Company size, often measured by total assets or sales, influences access to capital markets and operational resilience. Larger firms are generally perceived as less risky investments, potentially enhancing their valuation (Dang, Li, & Yang, 2018). In the energy sector, size also correlates with economies of scale and regulatory advantages.

2.5 Company Activities

Company activity reflects operational efficiency, often assessed through asset turnover ratios. Firms with high activity levels typically utilize resources effectively, leading to better profitability and, in turn, higher company value. In the context of energy companies, operational efficiency can be particularly significant due to high asset investments.

2.6 Corporate Social Responsibility *(*CSR*)* Disclosure

As a strategic instrument that can improve reputation and stakeholder confidence, corporate social responsibility (CSR) is becoming more widely acknowledged than only as a compliance measure. Carroll's (1991) CSR approach places a strong emphasis on philanthropic, ethical, legal, and economic obligations. According to research by Waddock and Graves (1997), businesses that practise social responsibility typically have stronger financial results. CSR initiatives (such community involvement and environmental stewardship) may mitigate adverse externalities in Indonesia's energy sector, increasing corporate value. Given its moderating effect, CSR may either amplify or diminish the direct correlations between corporate value and financial metrics.

3. THEORETICAL FOUNDATIONS

3.1 Agency Theory

By highlighting the conflict of interest between managers and shareholders, agency theory suggests that managers might not always behave in the best interests of the owners when proper governance frameworks are not in place.

3.2 Signal Theory

Strong profitability, minimal leverage, and active CSR initiatives can all be seen as positive signals that increase firm value. Signalling theory highlights that businesses use financial performance and strategic actions to communicate with the market.

3.3 Legitimacy Theory

According to legitimacy theory, businesses aim to retain their legitimacy by coordinating their operations with societal norms. This is especially important in delicate sectors like energy, where CSR initiatives are frequently implemented. Collectively, these ideas clarify how public acceptance, market perceptions, and internal management conduct interact to affect a company's market value.

4. HYPOTHESIS DEVELOPMENT

4.1 The Effect of Profitability on Firm Value

High profitability will send a positive signal to investors, luring them in as it demonstrates the company's profitability and, thus, raising its value, according to signalling theory. This is consistent with studies by Siregar, Dalimunthe, and Trijuniyanto (2019) and Endri & Fathony (2020). In light of this description, the study's hypothesis is:

H1: Profitability has a positive influence on the company's value in energy companies listed on the Indonesia Stock Exchange (IDX) for the period 2014-2022.

4.2 The Effect of Leverage on Firm Value

Leverage has a negative impact on the company's value because, according to the theory of agency, there is a conflict between the principal interests of agents and shareholders. The former believe that, in addition to tax reductions, increased leverage will result in potential losses, cash flow issues, or even financial difficulties (Santosa, Aprilia, & Tambunan, 2020). If leverage is used more frequently, it will send a bad message to investors, making them less confident in the company's capacity to survive. The company's reputation will suffer from low investor confidence. Leverage has a detrimental impact on the company's value, as demonstrated by studies by Akhter & Hassan (2023); Anas et al. (2023); Asghar, Sajjad, Shahzad, & Matemilola (2020); and Aqabna, Aga, & Jabari (2023). Given this justification, the study's second hypothesis is:

H2: Leverage has a negative influence on the value of the company in energy companies listed on the Indonesia Stock Exchange (IDX) for the period 2014-2022.

4.3 The Effect of Company Size on Firm Value

One of the proxies that investors take into consideration when making investment decisions is the size of a firm, which is determined by the size of its assets (Hapsoro & Falih, 2020). The company's size demonstrates how dedicated it is to enhancing its performance. Because they think the business will yield higher profits, investors are therefore more eager to put their money down. Signal theory states that huge companies draw investors because their assets have an impact on a company's value growth (Sari & Witjaksono, 2021). According to the findings, Dang, Nguyen, & Tran (2020); Dang, Vu, Ngo, & Hoang (2019); Liou, Ting, & Chen (2023); Saidat, Silva, & Seaman (2019) and Hapsoro & Falih (2020) firm value is positively impacted by company size. The third theory, as stated in the above description, is:

H3: Company size has a positive influence on the firm value of energy companies listed on the Indonesia Stock Exchange (IDX) for the period 2014-2022.

4.4 The Influence of Company Activities on Firm Value

As per the signal theory, a rise in business activity will show that the management of the firm is doing a better job of managing its assets to create sales, which would provide investors a good indication about the company's worth. The company's value will increase as a result (Fadila, Burhanudin, & Muhdin, 2023). The findings of earlier studies, like Ahmad, Shah, Ijaz, & Ghouri (2023); Fadila, Burhanudin, & Muhdin (2023); Ismail (2020); and Santosa, Aprilia, & Tambunan (2020), which show that business operations have a favourable impact on firm value, support this. With this justification, the study's fourth hypothesis is:

H4: Company activities have a positive influence on the company's value in energy companies listed on the Indonesia Stock Exchange (IDX) for the period 2014-2022.

4.5 The Effect of Corporate Social Responsibility (CSR) Disclosure in Moderating Profitability, Leverage, Company Size, and Company Activities on Firm Value

Legitimation theory in the context of corporate social responsibility (CSR) describes an organization's attempts to win and keep the approval and respect of governments, the general public, and other stakeholders in relation to its CSR initiatives. This idea holds that businesses use CSR policies and initiatives to show their social responsibility and win over the public in an effort to build social legitimacy. Investors' favourable opinions on CSR implementation will contribute to a favourable reaction to the business, which will raise its worth. Furthermore, CSR may lessen these factors' capacity to influence the company's worth. The following hypothesis was developed in light of this description.

H5: Corporate Social Responsibility disclosure is able to moderate the effect of profitability on the company's value in energy companies listed on the Indonesia Stock Exchange (IDX) for the period 2014-2022.

H6: Corporate Social Responsibility Disclosure is able to moderate the influence of leverage on the company's value in energy companies listed on the Indonesia Stock Exchange (IDX) for the period 2014-2022.

H7: Corporate Social Responsibility disclosure is able to moderate the influence of company size on the value of the company in energy companies listed on the Indonesia Stock Exchange (IDX) for the period 2014-2022.

H8: Corporate Social Responsibility disclosure is able to moderate the influence of corporate activities on the company's value in energy companies listed on the Indonesia Stock Exchange (IDX) for the period 2014-2022.

5. RESEARCH METHODS

5.1 Variable Operational Definitions

Firm Value (Y)

The value of the company can be reflected in the results of a company's performance that will be formed from market supply and demand, where the assessment of the company's performance will be assessed by the public eye. In this study using a general formula, the Q ratio shows the relationship between the company's market value and its intrinsic value, which can determine whether the company's stock is cheap or too expensive (Hayes, 2021). The following formula can be used to compute Tobin's Q:

$$\text{Tobins Q} = \frac{MVE+D}{TA}$$

Profitability (X1)

By comparing the company's number of assets and profits before interest and taxes (EBIT), ROA can be computed in this study. A positive return on assets (ROA) indicates that the business can turn a profit. ROA is measured in percentages using the following formula:

$$\text{ROA} = \text{x } 100\% \frac{Net\ income}{Total\ Aset}$$

Leverage (X2)

This study uses the debt equity ratio (DER) to calculate leverage. A high number of DERs usually indicates that the business is actively financing its growth with debt. The unit of measurement of the DER is in percentages with the formula:

$$\text{DER} = \text{x } 100\% \frac{Total\ Liabilities}{Ekuitas}$$

Company Size (X3)

The size of the company's assets is used to determine its size. One aspect that investors take into account when making an investment is the company's size. An indicator of a company's size that uses the following formula:

Size = Log ln (Total Assets)

Company Activities (X4)

One factor that determines a company's worth is asset turnover (TATO), a ratio that gauges how well a business uses its assets to produce income. Generally speaking, a corporation with a high asset turnover ratio is in better financial standing. A unit of measurement for business operations using the following formula:

$$\text{TATO} = \frac{Net\ Sales}{Average\ Total\ Assets}$$

CSR (Z) disclosure

The favourable reaction that investors will provide to the company as a result of the implementation of CSR will raise the company's worth. Furthermore, CSR may lessen these factors' capacity to influence the company's worth. This implies that if a business can boost earnings, build a solid debt load, and grow its size, but corporate social responsibility (CSR) is a failure, it may not be able to raise the company's perceived worth in the eyes of investors. CSR measuring unit using the following equation:

$$\text{CSRDIy} = \frac{Number\ of\ item\ disclosured}{117}$$

5.2 Population, Samples, and Sampling Techniques

The population that was employed in this investigation is energy sector firm that are listed on the IDX which amounted to 80 companies. According to Sugiyono (2021), population is all elements that will be used as generalization areas. The population criteria that were built to be targeted in this study are as follows:

1) Energy sector companies that have been listed on the IDX on or before 2014.
2) Energy sector companies that have published annual reports consecutively in the 2014-2022 period.
3) Energy sector companies that disclose social responsibility (CSR) reports in annual reports for the period 2014-2022.

The results showed that the study population consisted of twenty-eight (28) companies (appendix 2). The year range of the study was Nine (9) years, but due to using a one-year data lag, the year span became eight (8) years. The sample consisted of 28 companies multiplied by (X) over a period of eight (8) years, so the results were 224 observations or observations.

5.3 Data Analysis Techniques

The data analysis method used in this study is a quantitative analysis method using the help of R Studio software as a tool for statistical tests to process panel data through multiple regression of panel data. This study uses descriptive statistical analysis, classical assumption test, normality test, autocorrelation test, multicolonicity test, heterokedasticity test. The formula for the regression equation in this study is:

$$Y = a + \beta 1X1 + \beta\ 2X2 + \beta\ 3X3 + \beta\ 4X4 + e$$

$$Y = a + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X1Z + \beta 6X2Z + \beta 7X3Z + \beta 8X4Z + e$$

6. RESULTS AND DISCUSSION

6.1 Descriptive Statistical Analysis

Table 6.1 Descriptive Statistics

	Minimum	Maximum	Mean	Std.Deviation
ROA	-0,567250	0,592580	0,054848	0,139555
DER	-15,817390	162,190310	2,236074	10,901566
SIZE	377.575.443	169.616.309.641.196	21.943.587.891.440	29.357.752.065.786
TATO	0,000430	2,541839	0,705550	0,502352
CSR	0,076923	1,000000	0,406254	0,210618
Q	0,371410	4,386000	1,282674	0,704519

Source: R-Studio Software Output Results, 2025

6.2 Multiple Regression Analysis with Panel Data

Table 6.2 Panel Data Regression Test Results

Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)	
(Intercept)	0.4734	0.27889	1.697	0.0909	.
ROA	0.80578	0.31393	2.567	0.0109	*
DER	0.01324	0.01498	0.884	0.3777	
SIZE	-0.01353	0.02876	-0.47	0.6386	
TATO	0.17518	0.09226	1.899	0.0588	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
Residual standard error: 0.4727 on 242 degrees of freedom
Multiple R-squared: 0.0673, Adjusted R-squared: 0.05188
F-statistic: 4.365 on 4 and 242 DF, p-value: 0.001995

Source: R-Studio Software Output Results, 2025

Table 6.2 indicates that the following are the findings of the study's partial significance test:

1. How Profitability Affects Firm Value Profitability has a positive coefficient and a significance value of 0.0109, which is less than 0.05. This indicates that profitability positively affects business value.
2. How Leverage Affects Firm Value With a significance value of 0.3777 higher than 0.05, leverage has no impact on firm value, according to the study's findings.
3. How Firm Size Affects Firm Value The study's findings indicate that there is no relationship between business value and company size, with the significance value of 0.6386 being greater than 0.05.
4. How Company Activities Affect Firm Value The study's findings indicate that corporate activities had no bearing on firm value, with a significance value of 0.0588 higher than 0.05.

6.3 Testing Interaction Moderation Variables

Table 6.3 Results of Panel Data Regression Test with Moderation Variables

Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)	
(Intercept)	0,443661	0,290092	1,529	0,1275	
ROA	1,167,842	0,454721	2,568	0,0108	*
DER	0,009891	0,015739	0,628	0,5303	
SIZE	-0,009298	0,031281	-0,297	0,7666	
TATO	0,05734	0,216794	0,264	0,7916	
CSR	-0,073112	0,591199	-0,124	0,9017	
ROA*CSR	0,066428	0,071316	0,931	0,3526	
DER*CSR	-0,065145	0,212678	-0,306	0,7596	
SIZE*CSR	0,002574	0,015035	0,171	0,8642	
TATO*CSR	-0,020804	0,322123	-0,065	0,9486	

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.4756 on 237 degrees of freedom

Multiple R-squared: 0.0748, Adjusted R-squared: 0.03967

F-statistic: 2.129 on 9 and 237 DF, p-value: 0.02791

Source: R-Studio Software Output Results, 2025

DER*CSR is the interaction between leverage and CSR disclosure, with a Pr value of 0.7596, which is larger than 0.05, and ROA*CSR is the interaction between profitability and CSR disclosure, with a Pr value of 0.3526, which is greater than 0.05, according to the table. The relationship between company size and CSR disclosure is represented by SIZE*CSR, which has a PR value of 0.8642, and TATO*CSR, which offers a PR value of 0.9486.

Given these findings, it can be said that CSR disclosure in energy sector companies listed on the IDX between 2014 and 2022 was unable to moderate all factors influencing the company's value. As a result, the study's hypotheses H5, H6, H7, and H8 were rejected. The significance value was higher than 0.05.

6.4 Discussion

1. The Effect of Profitability on Firm Value

According to the study's findings, the value of energy companies listed on the IDX for the years 2014–2022 is positively impacted by profitability. These findings also corroborate the hypothesis that profitable companies will draw in investors because they exhibit favourable conditions, which raises the company's worth. The findings of this study corroborate those of Alam & Tariq (2023); Aqabna, Aga, & Jabari (2023); and Dang, Vu, Ngo, & Hoang (2019), who claimed that profitability is a gauge of a business's ability to make money off of its assets, investments, and sales. Profitability might therefore indicate to shareholders or investors if a business can sustain its market position and grow further. This implies that there are encouraging signs that a successful company may see an increase in value.

2. The Effect of Leverage on Firm Value

Pecking order theory, which holds that companies prefer to use internal equity rather than external equity to fund projects (Ross, 2021), and the agency's theory that the use of debt can result in a conflict of interest between management and owner are supported by the research findings of this study, which indicate that leverage has no effect on the value of energy sector companies listed on the IDX for the period 2014–2022.

Debt can be used by management for their own benefit, such as evading owners' close supervision. Therefore, leverage is not a factor that can impact a company's value in this study. This is possible given that businesses in the energy sector need to make considerable investments in tangible assets like drilling, heavy machinery, and so forth. As a result, they frequently use leverage to finance these expenditures without having to raise equity significantly. This study's findings are consistent with those of Emanuel & Rashid (2019), Endri & Fathony (2020), and Ispriyahadi & Abdulah (2021) because investors look at more than just the company's leverage when assessing investment risks.

3. The Effect of Company Size on Firm Value

Among energy sector companies listed on the IDX for the years 2014–2022, the study's findings indicate that a company's size has no bearing on its value. These findings contradict the signal theory, but they do support the Modigliani–Miller Theorem, which holds that a company's capital structure does not determine its value (Chen, 2022). The findings of this study corroborate those of Azaro, Djajanto, & Sari (2019); Endri & Fathony (2020); and Marc, Suciwati, & Karma (2022), who found that when investors purchase stocks, they are more concerned with the company's performance, as reflected in its financial statements, and with external factors that could impact its value, such as interest rates, inflation, exchange rates, or currencies, as well as government regulations that ensure the company's well-being.

4. The Influence of Company Activities on Firm Value

According to the study's findings, there is no correlation between the value of energy sector companies listed on the IDX for the years 2014–2022. The findings also support the Efficient Market Hypothesis (EHM), which holds that all stocks have perfect prices based on the nature of the investment that is inherent in the stock and that investors are aware of this (Dhir, 2022). The stock price should reflect the expansion and reorganisation of businesses like EMH. The anticipated improvements in business operations can raise the company's value if the market is efficient, meaning that business operations won't have a major impact on the company's worth. The study's findings are consistent with those of Firdaus (2023); Soekapdjo, Miyasto, & Mariyanti (2021); Firdaus & Tanjung (2022); and Harnida, Zulfikar, Mardah, & Rahman (2021). This is because a low value of the company's activity (TATO) indicates that sales are lower, or that the company's total assets are greater than its capacity to sell them. As a result, investors are less concerned and take the activity's value (TATO) into account, which has no bearing on the company's worth.

5. CSR Disclosure Moderates Profitability to Firm Value

The findings of this analysis demonstrate that, for the years 2014–2022, CSR disclosure alone cannot modify the profitability to firm value of energy sector companies listed on the IDX, which supports the research results of Sutanto & Hariadi (2023). This research supports the theory of legitimacy where companies that carry out CSR are considered legitimate or convincing by the government in order to operate successfully. This may be because investors and consumers are not responding to corporate CSR signals, especially companies in the energy sector. Investors believe that companies do not need to check CSR because they will be sanctioned according to laws and regulations if they do not do so.

6. CSR Disclosure Moderates Leverage on Firm Value

The study's findings, which corroborate those of Sutanto & Hariadi (2023), demonstrate that CSR disclosure is unable to reduce the leverage to firm value in energy sector companies listed on the IDX during the 2014–2022 timeframe. This research supports the theory of legitimacy where companies that carry out CSR are considered legitimate or convincing by the government in order to operate successfully. As explained earlier, this is allegedly because investors and consumers do not respond to the company's signals in disclosing CSR. If the company experiences profits or losses, this will not hinder the company in CSR disclosure, so that investor decisions will not affect the CSR disclosure carried out. The good or bad disclosure of CSR will not affect the laverage on the company's value because the good or bad of the average will only make the company have difficulty carrying out the company's activities in generating profits.

7. CSR Disclosure Moderates Company Size to Firm Value

According to the study's findings, CSR disclosure cannot reduce a company's size or value in the energy sector for businesses listed on the IDX between 2014 and 2022. This finding is consistent with the findings of Hussain et al. (2023) and Abidin et al. (2023). This research supports the theory of legitimacy where companies that carry out CSR are considered legitimate or convincing by the government in order to operate successfully. As explained earlier, this is suspected because investors and consumers do not respond to corporate signals in disclosing CSR where small companies and large companies disclose CSR in a mandatory manner, especially energy sector companies.

8. CSR Disclosure Moderates Corporate Activities to Firm Value

In this study, the results show that CSR disclosure is not able to moderate the company's activities to the company's value in energy sector companies listed on the IDX for the 2014-2022 period. This research supports the theory of legitimacy where companies that carry out CSR are considered legitimate or convincing by the government in order to operate successfully. This may be due to investors and consumers not observing the company's customer service (CSR) disclosures; This is especially true for companies in the energy sector. Investors do not need to feel the need to check the company's CSR because the company will be sanctioned in accordance with laws and regulations if it does not do so. Communication and customer service (CSR) strategies take a long time to enjoy the benefits of CSR implementation that are reflected in the company's performance. Therefore, it is natural that the implementation of short-term CSR cannot improve the relationship between the company's activities and the company's values.

7. CONCLUSION

The following conclusions can be made in light of the findings of tests carried out in the study of energy sector businesses listed on the IDX for the 2014–2022 period:

1. Profitability has a positive influence on the company's value.
2. Leverage has no influence on the value of the company.
3. Company size has no influence on the value of the company.
4. The Company's activities have no influence on the company's value.
5. CSR disclosure is not able to moderate the relationship between profitability and firm value.
6. CSR disclosure is not able to moderate the relationship of leverage to the company's value.
7. CSR disclosure is not able to moderate the relationship between company size and firm value.
8. CSR disclosure is not able to moderate the relationship between company activities and firm values.

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