Determinants Of Company Value In Energy Sector Companies

Willy Sri Yuliandhari¹ and Rishma Nadya Nurramadhani²*

¹,²Department of Accounting, Faculty of Economics and Business, Telkom University, Bandung, Indonesia

Email Address:
willyyuliandhari@telkomuniversity.ac.id, rishmandy@student.telkomuniversity.ac.id
*Corresponding Author

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Abstract: Company value is the number of sales obtained through an assessment of the company’s ability, which reflects public trust in the company. Company value can be influenced by CSR disclosure, intellectual capital, and capital structure. This study examines the effect of CSR disclosure, intellectual capital, and capital structure on company value in energy sector companies listed on the IDX for 2017 to 2022. The research sample was determined using a purposive sampling technique so that 9 sample companies were obtained. The data used are annual and sustainability reports during the study period. This study uses panel data regression analysis with Eviews 12 software. This study's results indicate that CSR disclosure, intellectual capital, and capital structure simultaneously influence company value. Partially, CSR disclosure and intellectual capital do not affect company value, while capital structure has a negative effect on company value.

Keywords: Company Value; CSR Disclosure; Intellectual Capital; Capital Structure.

INTRODUCTION

One of the company's goals is to maximize shareholder satisfaction. Maximizing shareholder satisfaction can be achieved by increasing company value (Benne & Moningka, 2020). Company value is valuable information for investors to decide their opinion about a company, which refers to one of the theories, namely the signal theory. The signal theory describes how a company sends signals to consumers when analyzing financial reports and reveals how high-quality companies can consciously convey signals to investors so that investors can distinguish between good-quality and poor-quality companies (Arianti, 2022). According to (Ulfa & Wiweko, 2022), signal theory shows that companies try to convey their signals to potential investors, which will become positive information by disclosing it in financial reports. The company expects the positive signal to be well received by the market to give the company a competitive advantage and high company value.
According to (Kamaliah, 2020), company value reflects investors' interpretation of company performance, closely related to stock prices. The company's value is expressed as market value because the company's value has the potential to provide the maximum profit to shareholders if the company's stock price increases. The rate of increase in share prices has a direct positive impact on shareholders' wealth. Company value is a measure of the market value of a share relevant to investment opportunities and is also a sign of good development for a company in the future. This encourages financial managers to carry out their role in financial management effectively and efficiently (Trafalgar & Africa, 2019). In this study, company value is measured using Tobin's Q. According to (Wibowo et al., 2021), company value can be measured using Tobin's Q because this indicator can show how management is performing in managing company assets, the potential for developments in company stock prices, and investment growth.

The stock market price is related to a company's value; it serves as a performance measurement tool to determine its value (Abbas et al., 2021). Stock prices reflect success in resource management, which investors see as a definition of company value (Firmansyah et al., 2021). Moreover, in recent years, the share price of the energy sector has been underwhelming compared to the share prices of companies in other sectors.

**Figure 1.** Average Sectoral Stock Price Index for 2018 to 2021
Source: Central Bureau of Statistics (2021), data processed

**Figure 1** shows that the average energy sector stock price index from 2018 to 2021 continues to decrease; namely, in 2018, the energy sector stock price index was IDR 1,905; in 2019, it was IDR 1,677; in 2020, it was IDR 1,392; and in 2021 it was IDR 843. Based on the energy sector's stock price index in recent years, the author is interested in making energy sector companies objects of research because knowing the condition of the value of companies in the energy sector when the stock price index decreases causes the possibility that investors will not invest in companies in that sector.
Figure 2 shows that the average of Tobin's Q in the energy sector during the 2017 to 2022 period has fluctuated. There was an increase in 2018 by 103 per cent to 2.855, then decreased in 2019 by 23 per cent to 2.204 and fell again in 2020 by 16 per cent to 1.846. There was another increase in 2021 of 113 per cent to 3.925 and another decrease in 2022 of 61 per cent to 1.516. When Tobin's Q value drops, the company could be more optimal in its operations. Market conditions can also cause a rise and fall in the value of Tobin's Q because the price of the stock's market value depends on good or bad market conditions (Firmansyah et al., 2021).

The average stock price index for the energy sector from 2018 to 2021 continues to decline; namely, in 2018, the energy sector stock price index was IDR 1,905; in 2019, it was IDR 1,677; in 2020, it was IDR 1,392, and in 2021 it was IDR 843. In 2019, the energy sector stock index for the oil, gas and coal subsector decreased to IDR 1,677 from the previous level of IDR 1,905. This was caused by the decline in coal prices throughout 2019, which reached 12.83 per cent due to the excess coal supply in the global market. The significant decline in coal prices in 2019 also caused pressure on selling prices and margins. It is assessed that the performance of the oil, gas and coal subsector will be linked to the results of a trade agreement between the United States and China (Suryahadi and Laoli, 2020). Meanwhile, several energy sector company shares listed on the Indonesia Stock Exchange (IDX) also experienced a decline. Indo Tambangraya Megah Tbk's (ITMG) share price fell sharply. At the end of 2018, ITMG's share price was IDR 20,250 per share; at the end of 2019, it was IDR 11,475. Apart from that, there is Bayan Resources Tbk. (BYAN). At the end of 2018, it had a share price of IDR 19,875 per share and IDR 15,900 per share, as did several other companies.

Based on the above phenomena, the energy sector has unstable stock prices. Share prices in the energy sector have continued to decline in recent years, which can cause potential shareholders to hesitate to invest their shares in companies in that sector because stock prices can reflect the company's value (Irawan & Kusuma, 2019). Companies must try to increase their value to generate a sense of trust in prospective shareholders who will invest their shares in companies in the energy sector.

In recent years, companies have introduced corporate social responsibility (CSR) disclosures as a medium to increase company value (Handayati et al., 2022). CSR disclosure
is an effort used by companies to provide information on corporate social responsibility activities to the public and other parties who use company financial reports (Chen et al., 2018). Matters related to CSR disclosure are also explained in Government Regulation 47 of 2012 concerning the social and environmental responsibility of limited liability companies. In this government regulation, it is said that every company is obliged to carry out CSR activities and include the implementation of CSR in the company's annual report. Applicable laws will give companies that do not carry out CSR activities sanctions. The sanctions are administrative sanctions consisting of written warnings, restrictions on business activities, and freezing or revocation of business activities. CSR disclosure is measured using the Corporate Social Responsibility Disclosure Index (CSRDI), guided by the GRI standards (Narayana & Wirakusuma, 2021). The GRI Standards are a global implementation for openly disclosing economic, environmental, and social impacts. In signal theory, it is explained that companies use financial reports to provide positive and negative signals to their users. Therefore, companies must disclose all financial and non-financial information in their financial reports, and CSR is one of the non-financial information that must be disclosed (Benne & Moningka, 2020). Based on research conducted by (Benne & Moningka, 2020; Zuhriah & Maharani, 2022) regarding the relationship between CSR disclosure and company value, it was found that CSR disclosure has a positive effect on company value because CSR disclosure can improve company image, which is a measure of investors making investments so that company value also increased. This is contrary to the results of research conducted by (Adelina & Arza, 2021; Angela et al., 2021), which states that CSR disclosure does not affect company value due to the lack of compliance with the standards set by GRI.

With the existence of information and the virtual economy, the value of intangible assets gradually exceeds that of tangible assets, so issues related to intellectual capital become very important (Ni et al., 2020). According to (Kianto et al., 2017), intellectual capital is an intangible resource related to helpful knowledge that helps companies create value. Intellectual capital is measured using the Value-Added Intellectual Capital (VAIC) indicator. According to (Bhattu-Babajee & Seetanah, 2022), there is a relationship between the company's market value and the average VAIC value. This indicates that the higher the company's VAIC level, the more efficient it is in using available resources to produce higher company value. Effective management of intellectual property by a company will increase knowledge of market values so that company value can increase (Apriantri, 2018). Based on research conducted by (Fanni & Fuad, 2019; Ni et al., 2020) regarding the relationship between intellectual capital and company value, it was found that intellectual capital has a positive effect on company value because companies that have employees with broad insight will have the advantage of renewal and better company image. The results of this study contrast with research conducted by (Subaida et al., 2018; and Suwandi & Susilawati, 2023), which states that intellectual capital does not affect company value due to the possibility of low awareness or the ability of investors to read good signals regarding intellectual capital. Company.

An essential issue in company finance relates to optimal capital structure to maximize company value (Umdiana & Claudia, 2020). According to (Luu, 2021), capital structure is the arrangement of capital from various sources to meet the company's long-term needs, and capital structure refers to the proportion of equity and debt financing used for the company's survival. Capital structure can be measured using indicators of leverage, debt to equity ratio (DER), and collateralizable assets (Inayah, 2022). This study uses the Debt-to-Equity Ratio
(DER) to measure capital structure because it reveals how much a company uses funding obtained through debt compared to its equity (Trafalgar & Africa, 2019). (Li et al., 2019) state that DER has a negative relationship with company value. The more debt a company has, the more likely the company must pay interest and generate less cash. This can lead to financial risks that can hinder the growth of the company's value. In line with research conducted by (Arianti, 2022; Suhandhi, 2021), capital structure negatively affects company value. The results of research conducted by (Trafalgar & Africa, 2019) provide different results, namely, the capital structure does not affect company value because for a company going public, the company value will be reflected in the market value of its shares.

The authors were motivated to conduct this research based on the background and research gaps. This study examines the effect of corporate social responsibility disclosure, intellectual capital, and capital structure on company value in energy sector companies. Thus, this research is expected to assist companies in increasing company value and helping the company's sustainability.

The emphasis on CSR disclosure, intellectual capital, and capital structure are relevant issues in the contemporary business environment. Companies are increasingly expected to be socially and environmentally responsible, utilize their intellectual resources effectively, and manage their capital structures wisely. Therefore, this research contributes to understanding how these practices influence company value. In addition, the focus on companies in the energy sector adds a unique dimension to this research. In the context of the global energy transition and the need for sustainability, assessing the impact of these practices in the energy sector is of particular importance.

THEORETICAL REVIEW

**Signal Theory.** Signals refer to actions taken by the company's management that serve as a guide for investors regarding management's anticipation of the company's prospects in the future (Firmansyah et al., 2021). Signal theory involves the view of shareholders regarding the potential for increasing the company's value in the future based on the information provided by the company's management. This action aims to signal to shareholders the management's ability to project the company's prospects, thus distinguishing between high- and low-quality companies (Brigham & Houston, 2018). Financial reports are a tool companies use to provide positive or negative signals to users regarding the company's financial condition and opportunities. According to (Brigham & Houston, 2018), financial reports that give a positive signal will show that the company has managed operations effectively and is in healthy financial condition. Therefore, companies must fully disclose financial and non-financial information in their financial reports (Benne & Moningka, 2020).

**Company Value.** Company value is a tool a company uses to influence investors' perceptions of a company's value because company value gives an idea of the actual condition of a company. When the company's value is higher, investors will assume that the company's performance is good and will be motivated to invest in the company (Dwiastuti & Dillak, 2019). According to (Benne & Moningka, 2020), increasing the company's value is the company's primary goal: increasing shareholders' welfare. The company's value reflects the level of success in carrying out the duties and responsibilities handled by company managers. In other words, if the company's value is high, it shows its good financial structure, and managers carry out their duties and responsibilities in managing the
company well. In this study, Tobin's Q was chosen as an indicator for measuring company value. Tobin's Q is a ratio that reflects the current financial market assessment of the rate of return for each additional dollar invested (Subaida et al., 2018).

**CSR Disclosure.** According to (Angela et al., 2021), CSR is an idea that states that companies, in essence, have a responsibility towards consumers, employees, shareholders, society and the environment in all aspects of the company's operations. Companies are not only expected to focus on financial responsibility but must also pay attention to their responsibilities towards the environment and society (Adelina & Arza, 2021). According to (Garanina, 2023), CSR disclosure serves as a valuable tool to obscure the opportunistic behaviour of managers, which in turn can impact increasing the company's value. CSR disclosure should be disclosed separately in a sustainability report, which describes reporting on corporate responsibility for environmental, economic, and social aspects. However, many companies still need to disclose CSR activities in annual reports (Celine, 2022). In this study, CSR disclosure is proxied by the 2021 GRI Standards. GRI Standards are divided into four leading component indicators: GRI General, a general indicator module; GRI 200, an economic indicator module; GRI 300, an environmental indicator module; and GRI 400, a social indicator module. In this study, the authors only used the GRI 200, GRI 300, and GRI 400 modules so that the research could focus more on the impacts generated by the activities of energy sector companies in the economic, environmental, and social fields. Like research conducted by (Gartiwa et al., 2023), the total number of indicators used in this study is 89.

**Intellectual Capital.** According to (Ni et al., 2020), intellectual capital is intangible, and companies use intellectual assets and resources to create value by diverting it into new product and service processes. Intellectual capital is an intangible resource with professional skills, applied experience, knowledge, organizational technology, and customer relations that provide a company's competitive advantage (Odat & Bsoul, 2022). According to (Adelina & Arza, 2021), four factors make intellectual capital very important in influencing company value, namely: (1) technological and communication advances, (2) increasing need for knowledge and a knowledge-based economy, (3) transformation of interaction patterns and network communities, and (4) the demand for innovation as a determinant of competitiveness. According to (Ulum, 2017), three main elements comprise intellectual capital: (1) Human Capital; human capital is an individual database that includes genetic inheritance, education, experience, and individual attitudes towards life and business. (2) Structural Capital: Structural capital includes non-human information storage such as databases, organizational structures, manual processes, strategies, and other elements that make the company's value exceed the value of its physical assets. (3) Capital Employed: Capital employed is information about marketing channels and customer relations in the company's business development. This study's intellectual capital measurement uses the Value-Added Intellectual Coefficient (VAIC) method developed by Pulic.

**Capital Structure.** According to (Luu, 2021), capital structure is a comparison between equity and debt financing used for company operations and growth. Debt financing offers a lower cost of capital because of the associated tax benefits. Nonetheless, too much use of debt poses financial risks that affect shareholders and the return on equity they require. Therefore, companies must find the optimal point where the marginal benefits of using debt equal the marginal costs incurred (Luu, 2021). According to (Irawan & Kusuma, 2019), an optimal capital structure will increase the company's stock price. The capital structure is a combination of the company's funding sources that must be appropriately
managed to maximize the value of the company. In this study, the measurement of capital structure uses the Debt-to-Equity Ratio (DER).

**Hypothesis Development.** CSR disclosure is an effort to provide information about corporate social responsibility activities to the community and the surrounding environment by including it in the annual or company sustainability report (Handayati et al., 2022). There needs to be more than the company's financial condition to guarantee the growth of the company's value. Company value will be guaranteed if the company also pays attention to it from an economic, social, and environmental perspective. This perspective is contained in implementing CSR as a form of corporate responsibility and concern for the surrounding environment. Thus, CSR disclosure can increase company value through disclosure in terms of community welfare and environmental awareness (Kamaliah, 2020). CSR disclosure carried out by the company will give a positive signal to investors, and the market will respond to any information disclosed as a signal that it will affect the company's value, which is reflected in changes in stock prices. This research is in line with previous research regarding the effect of CSR disclosure on company value conducted by (Benne & Moningka, 2020; Zuhriah & Maharani, 2022), which shows that CSR disclosure has a positive effect on company value because more and more CSR activities are carried out and disclosed, the greater the public trust in the company. The trust of stakeholders will ultimately affect the value of the company because the value of the company grows sustainably when a balance is achieved between economic, environmental, and social dimensions.

**H1:** CSR disclosure partially has a positive effect on company value.

In today's knowledge-based economy, the primary source of value creation has changed from tangible to intangible resources. Technological, scientific, and economic revolutions drove this. Intellectual capital is known as a company's intangible asset. Intellectual capital is the value of employee knowledge, skills, and training not included in the financial statements. Employees can transform knowledge into goods and services that improve financial performance and company value (Bhattu-Babajee & Seetanah, 2022). Intellectual capital in a company will give a positive signal to investors because high intellectual ability can indicate the company's ability to maximize the use of its resources, and the company could get big profits in the future. This research is in line with previous research on the effect of intellectual capital on company value conducted by (Fanni & Fuad, 2019; Ni et al., 2020), which shows that intellectual capital has a positive influence on company value because intellectual capital information in annual reports can show prospects of the company and become a decision-making tool for investors and stakeholders. The company's intellectual capital, explained broadly, will provide investors with confidence that the company can achieve maximum value in competition with a sustainable competitive advantage.

**H2:** Intellectual capital partially has a positive effect on company value.

(Trafalgar & Africa, 2019) state that capital structure is the company's expenditure to meet long-term needs, measured by comparing long-term liabilities and owned capital. The capital structure describes the financial dimensions of short-term debt, long-term debt, and own capital involved in carrying out company activities. Decisions regarding sources of
funding taken by company managers must be managed carefully in the context of determining the capital structure because these decisions can potentially affect the company's value and ultimately affect the achievement of goals in increasing shareholder welfare (Trafalgar & Africa, 2019). The capital structure will inform investors about the company's performance and future opportunities so that investors can decide whether to invest in the company or not, according to the risk that will be borne. This research is in line with previous research regarding the effect of capital structure on company value conducted by (Arianti, 2022; Suhandi, 2021), which shows that capital structure has a negative effect on company value because the higher the use of a company's debt, the greater the influence regulation of the capital structure of companies that tend to use debt can reduce the value of the company and lead to bankruptcy.

**H3**: Capital structure partially has a negative effect on company value.

Based on previous theories and studies, this study aims to examine and analyze the effect of corporate social responsibility disclosure, intellectual capital, and capital structure on company value. The research model is shown in Figure 2.

![Figure 2. Research Model](image)

**METHODS**

The research method used is descriptive quantitative. This study uses secondary data. According to (Sekaran & Bougie, 2020), secondary data is a collection of other researchers' compiled data. Secondary data can be obtained from several sources, such as statistical bulletins, government publications, information available within and outside the organization, company websites and the Internet. The data sources for this study are data from annual reports and sustainability reports of companies in the energy sector listed on the Indonesia Stock Exchange for the 2017 to 2022 period, as well as previous research journals, theses, articles, and books related to research variables. The data collection technique used in this study is a documentation technique, which collects data from recorded data originating from preexisting documents related to research variables and literature studies, namely by studying theories or previous research results. The data analysis
The technique used is panel data regression analysis using Eviews 12 software. Operational variables used in this study are:

**Company Value.** Company value is a tool a company uses to influence investors' perceptions of a company's value because company value provides an overview of the company's actual condition (Dwiastuti & Dillak, 2019). According to (Wibowo et al., 2021), company value can be measured using Tobin's Q with the formula:

\[
Tobin's\ Q = \frac{MVE+Debt}{Total\ Assets} \tag{1}
\]

Tobin's Q is the company value, and MVE is the market value of equity, which is calculated by multiplying the share price by the outstanding shares. Debt is the book value of total debt, and total assets are the book value of total assets.

**CSR disclosure.** CSR disclosure is a company's effort to provide information about CSR activities to the public and other stakeholders (Chen et al., 2018). In this study, CSR disclosure is measured using the GRI Standards with a total of 89 indicators and formulas (Gartiwa et al., 2023):

\[
CSRDIj = \frac{\sum Xij}{Nj} \tag{2}
\]

Where CSRDIj is the corporate social responsibility disclosure index, Nj is the number of items disclosed (N = 89), and \(\sum Xij\) is the number of items disclosed by the company. If disclosed, Xij is given a value of 1; if not disclosed, it is given 0.

**Intellectual Capital.** The Value-Added Intellectual Coefficient (VAIC) method can be used in measuring intellectual capital because VAIC can assess the efficiency of added value, which describes the results of the ability of the I.C. The VAIC method is designed to present information about the efficiency of value creation of tangible and intangible assets owned by companies (Adelina & Arza, 2021). The VAIC calculation steps are as follows (Bayraktaroglu et al., 2019):

\[
VAIC^m = VACA + VAHU + STVA \tag{3}
\]

To calculate Value Added (V.A.), the method reduces output with input, where output is total revenue, while input is total expenses, except for labour expenses. To calculate value-added capital employed (VACA), the method divides the value added by capital employed, where capital employed equals total equity. The method of calculating value-added human capital (VAHU) is a value-added method divided by human capital, where the method of calculating human capital is by looking at the total labour expenses. Moreover, the method is structural capital divided by value-added to calculate Structural Capital Value Added (STVA). In contrast, the method for calculating structural capital is reducing value-added with human capital.

**Capital Structure.** This study measures capital structure using the debt-to-equity ratio (DER). According to (Trafalgar & Africa, 2019), DER is the ratio used to reveal how much funds a company obtains through debt compared to its capital. The DER formula is as follows (Trafalgar & Africa, 2019):
\[
DER = \frac{Total\ Debt}{Total\ Equity}
\] ................................. (4)

Population and Sample. Population is a group of creatures analyzed for comprehensive research (Tarjo, 2021). The population in this study is represented by energy sector companies listed on the Indonesia Stock Exchange from 2017 to 2022, which regularly report annual reports and sustainability reports that are open to the public, so the population obtained is 54 companies. According to (Tarjo, 2021), the sample is part of the items selected for study. This study uses a non-probability sampling technique, which only gives each member of the population the same opportunity to be sampled (Hardani et al., 2020). The method used in this research for sample collection is purposive sampling, which is a technique that selects sample members based on specific criteria (Hardani et al., 2020). Based on the characteristics of the sample selection, the number of companies that will be used as research samples is obtained, as presented in Table 1.

Table 1. Sample Selection Characteristics

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy sector companies listed on the IDX from 2017 to 2022</td>
<td>72</td>
</tr>
<tr>
<td>Inconsistent energy sector companies listed on the IDX during 2017-2022</td>
<td>(9)</td>
</tr>
<tr>
<td>Energy sector companies that do not consistently publish annual reports during 2017-2022</td>
<td>(8)</td>
</tr>
<tr>
<td>Energy sector companies that are inconsistent in publishing sustainability reports for 2017-2022</td>
<td>(46)</td>
</tr>
<tr>
<td>The number of samples used as research objects</td>
<td>9</td>
</tr>
<tr>
<td>Total number of observations (9 x 6 years)</td>
<td>54</td>
</tr>
</tbody>
</table>

Source: Indonesia Stock Exchange, data processed (2023)

Based on the criteria, the total sample used in this study was 54, consisting of 9 companies.

The research data was analyzed using the descriptive statistical analysis method. According to (Sugiyono, 2020), descriptive statistics help assess data by breaking down the collected data, but they are not designed to provide general conclusions. In this study, the average, maximum value, minimum value, and standard deviation are used to display descriptive data.

This study uses panel data regression analysis to test the proposed hypothesis. Panel data combines cross-section and time-series data. (Basuki & Prawoto, 2016) state that panel data regression analysis has advantages. One of them is the ability of panel data to provide more data, resulting in greater degrees of freedom and overcoming problems that may arise due to missing variables.

The panel data regression equation in this study can be stated as follows:

\[
Tobin's\ Q = \alpha + \beta_1CSRDI_{it} + \beta_2VAIC_{2it} + \beta_3DER_{3it} + e
\] ................................. (5)

Where Tobin's Q is a company value, \(\alpha\) is constant, \(\beta_{1,2,3}\) is the regression coefficient of each independent variable, CSRDI is corporate social responsibility disclosure, VAIC is intellectual capital, DER is capital structure, \(e\) is an error term, \(t\) is time, and \(i\) is company.

Panel Data Regression Model Estimation Method. According to (Basuki & Prawoto, 2016), three approaches can be used in the panel data estimation method in the regression model. First, the Common Effect Model Approach. This approach is the most
straightforward in panel data analysis because it combines cross-section and time-series data. This approach uses Ordinary Least Square (OLS) to estimate the panel data model. Second, the Fixed Effect Model Approach. This approach assumes that different intercepts can overcome differences between individuals. To estimate this panel data model, a dummy variable technique is used to capture differences between companies. This approach is known as the Least Squares Dummy Variable (LSDV) technique. Third, the Random Effect Model Approach. This approach estimates the possibility of different influences over time and between individuals. In this approach, the difference in intersections is accounted for by including the error term for each company. This approach is also known as the Error Component Model (ECM) or Generalized Least Squares (GLS).

**Panel Data Model Selection.** Several tests can be conducted to select the most appropriate model for managing panel data (Basuki & Prawoto, 2016). The first is the Chow Test. The Chow test determines whether the fixed or standard effect model is the most appropriate for estimating panel data. Then, the Hausman Test determines whether the random effect or fixed effect model is more appropriate. Moreover, the Lagrange Multiplier Test determines whether the common effect or random effect model is the most appropriate.

**Determination Coefficient Test (R²).** According to (Basuki & Prawoto, 2016), the regression line is said to be perfect if all data is on the regression line or all residual values are zero. However, perfect regression lines are extremely rare. Generally, the regression line has less accuracy, both positive and negative. The main goal is to find a regression line that produces the smallest possible error. The coefficient of determination (R²) measures the extent to which the regression line fits the data or the percentage of total variation in the dependent variable (Y).

The value of the coefficient of determination (R²) has a range of values between 0 and 1. The closer to 1, the better the regression line is considered because it can explain the variation of the data well. Conversely, the closer to 0, the less good the regression line is. However, high or low R² values can be caused by several factors. For example, in time-series analysis, it is often possible to produce high R² values because the trends tend to move in the same direction. On the other hand, in cross-sectional analysis, the value of R² tends to be low because of the significant variation between the variables studied in the same period.

**Simultaneous Hypothesis Testing (F Test).** According to (Basuki & Prawoto, 2016), simultaneous hypothesis testing, also known as the F Test, is used to evaluate the effect of the independent variables simultaneously or simultaneously on the dependent variable. There are criteria used in this Test; namely, if the significance value of the test results is more than equal to 0.050, it means that the independent variables simultaneously do not significantly affect the dependent variable. Meanwhile, if the significance value of the test results is less than 0.050, the independent variables simultaneously significantly influence the dependent variable.

**Partial Hypothesis Testing (t-test).** According to (Basuki & Prawoto, 2016), partial hypothesis testing, also known as the t-test, is used to partially evaluate the effect of each independent variable on the dependent variable. There are criteria used in this Test; namely, if the significance value of the test results is more than equal to 0.050, it means that the independent variables do not have a partially significant effect on the dependent variable. Meanwhile, if the significance value of the test results is less than 0.050, it means that the independent variable has a partially significant effect on the dependent variable.
RESULTS

Outliers. Outliers are situations where cases or data have unique characteristics and look very different from other observations. They can appear as extreme values, either for a single variable or a combination of variables (Ghozali, 2018). This study used a sample consisting of 9 companies with a total of 54 data observations. This study deleted data from one company that was detected as an outlier. This is based on the results of balanced panels, which show better quality than unbalanced panels. Releasing observations is one of the methods used to achieve balance in panel data. Based on the outlier test results, three unreasonable sample data were obtained from 9 sample companies, so the sample data was not used. Companies that have outlier data can be seen in Table 2.

Table 2. Outlier Company Data

<table>
<thead>
<tr>
<th>Company Code</th>
<th>Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUMI</td>
<td>Bumi Resources Tbk</td>
</tr>
<tr>
<td>ITMG</td>
<td>Indo Tambangraya Megah Tbk</td>
</tr>
<tr>
<td>PTBA</td>
<td>Bukit Asam Tbk</td>
</tr>
</tbody>
</table>

Source: Output SPSS Version 25, data processed (2023)

The dependent variable in this study is company value, while the independent variables are CSR disclosure, intellectual capital, and capital structure. Table 3 shows the descriptive analysis of this study.

Table 3. Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observation</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOBIN’S Q</td>
<td>36</td>
<td>1.022</td>
<td>0.341</td>
<td>1.910</td>
<td>0.490</td>
</tr>
<tr>
<td>CSRDI</td>
<td>36</td>
<td>0.305</td>
<td>0.257</td>
<td>0.809</td>
<td>0.045</td>
</tr>
<tr>
<td>VAIC</td>
<td>36</td>
<td>4.134</td>
<td>2.719</td>
<td>11.739</td>
<td>-0.132</td>
</tr>
<tr>
<td>DER</td>
<td>36</td>
<td>1.421</td>
<td>0.947</td>
<td>3.623</td>
<td>0.050</td>
</tr>
</tbody>
</table>

Source: Output Eviews 12, data processed (2023)

Table 3 shows, the average value of the company's value is 1.022 with a standard deviation of 0.341. This average value indicates that the company value in the energy sector has an average of above 1, which means that the company value is quite optimal. The maximum value in this variable is 1.910, which was owned by Medco Energi Tbk (MEDC) in 2017. The minimum value in this variable is 0.490, which was owned by Mitrabahtera Segara Sejati Tbk (MBSS) in 2019.

The average corporate social responsibility disclosure value is 0.305, with a standard deviation 0.257. This average value indicates that the disclosure of corporate social responsibility in the energy sector has an average value more significant than the standard deviation value, which means that corporate social responsibility disclosure is quite optimal. The maximum value in this variable is 0.809 or 81 per cent, which is owned by Indika Energy Tbk (INDY) in 2022, with a total disclosure of 72 of the 89 items that must be disclosed. The minimum value in this variable is 0.045 or 4 per cent, which was owned by Elnusa Tbk (ELSA) in 2018 and 2019, with a total disclosure of 4 out of 89 items that must be disclosed.
The average value of intellectual capital is 4.134, with a standard deviation of 2.719. This average value indicates that intellectual capital in the energy sector has an average value more significant than the standard deviation value, which means that intellectual capital is quite optimal. Indika Energy Tbk owned the maximum value in this variable, 11.739, in 2022. Mitrabahtera Segara Sejati Tbk (MBSS) owned the minimum value, -0.132, which was owned by Mitrabahtera Segara Sejati Tbk (MBSS) in 2017.

The average capital structure value is 1.421 with a standard deviation of 0.947, which indicates that the average value is greater than the standard deviation and can be interpreted as capital structure data tending to converge or not vary. The maximum value in this variable is 3.623, owned by Medco Energi Tbk (MEDC) in 2021. The minimum value in this variable is 0.050, owned by Mitrabahtera Segara Sejati Tbk (MBSS) in 2021.

**Table 4. Multicollinearity Test**

<table>
<thead>
<tr>
<th></th>
<th>Collinearity Statistics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
<td></td>
</tr>
<tr>
<td>CSRDI</td>
<td>0.489</td>
<td>2.045</td>
<td></td>
</tr>
<tr>
<td>VAIC</td>
<td>0.376</td>
<td>2.659</td>
<td></td>
</tr>
<tr>
<td>DER</td>
<td>0.693</td>
<td>1.443</td>
<td></td>
</tr>
</tbody>
</table>

Source: Output Eviews 12, data processed (2023)

The results of the multicollinearity test shown in **Table 4** show that the tolerance value of the independent variables in this study, namely CSR disclosure (CSRDI), intellectual capital (VAIC), and capital structure (DER), is more significant than 0.100, and the VIF value is less than 10. This means there is no multicollinearity between independent variables in the regression model.

**Table 5. Heteroscedasticity Test**

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSRDI</td>
<td>-1.440</td>
<td>0.160</td>
</tr>
<tr>
<td>VAIC</td>
<td>1.838</td>
<td>0.075</td>
</tr>
<tr>
<td>DER</td>
<td>0.041</td>
<td>0.967</td>
</tr>
</tbody>
</table>

Source: Output Eviews 12, data processed (2023)

The results of the heteroscedasticity test shown in **Table 5** suggest that the independent variables in this study, namely CSR disclosure (CSRDI), intellectual capital (VAIC), and capital structure (DER), did not experience heteroscedasticity, or the data were homoscedastic because all Sig. were more significant than 0.050.

**Table 6. Chow Test**

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Statistic</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>11.844</td>
<td>(5.27)</td>
<td>0.000</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>41.798</td>
<td>5</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Output Eviews 12, data processed (2023)
Table 6 shows, the Chow test results show that the chi-square cross-section's probability value is 0.000. It can be interpreted that the probability value is less than 0.050, so H₀ is rejected, and the best model to use in panel data regression is the fixed effect model.

The results of the Hausman test show that Chi-Sq. The statistic is 20.805, Chi-Sq d.f. is 3, and the random cross-section probability value is 0.000. It can be interpreted that the probability value is less than 0.050, so H₀ is rejected, and the best model used is the fixed effect model. Because the model selected in this Test is the fixed effect model, it can be concluded that the most appropriate panel data regression model used in this study is the fixed effect model. The results of the fixed effect model can be seen in Table 7.

Table 7. Fixed Effect Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.422</td>
<td>0.167</td>
<td>8.515</td>
<td>0.000</td>
</tr>
<tr>
<td>CSRDI</td>
<td>-0.091</td>
<td>0.219</td>
<td>-0.415</td>
<td>0.682</td>
</tr>
<tr>
<td>VAIC</td>
<td>-0.002</td>
<td>0.022</td>
<td>-0.098</td>
<td>0.923</td>
</tr>
<tr>
<td>DER</td>
<td>-0.256</td>
<td>0.103</td>
<td>-2.468</td>
<td>0.020</td>
</tr>
</tbody>
</table>

Source: Output Eviews 12, data processed (2023)

Determination Coefficient (R²). The coefficient of determination test (R²) measures the extent to which the regression line fits the data or the percentage of total variation in the dependent variable (Y). Table 7 shows, the R-squared value is 0.765 or equal to 76 per cent. It can be interpreted that the independent variables, namely corporate social responsibility disclosure, intellectual capital, and capital structure, can explain the dependent variable (company value) of 76 per cent. In comparison, other variables outside the research explain the remaining 24 per cent.

Simultaneous Test (F Test). In Table 7, the Prob(F-statistic) value is 0.000 or less than 0.050, so H₀ is rejected with an R-squared value of 0.765. It can be concluded that the variables of corporate social responsibility disclosure, intellectual capital, and capital structure have a simultaneous effect of 76 per cent on company value in energy sector companies listed on the IDX for the 2017 to 2022 period.

Partial Test (t Test). The results of the partial Test in Table 7 show that the regression coefficient value of the corporate social responsibility disclosure variable is -0.091 with a probability value of 0.682, which is more significant than 0.050; it can be concluded that H₀ is accepted so that the partial corporate social responsibility disclosure does not affect company value in energy sector companies listed on the IDX for the 2017 to 2022 period.

The regression coefficient value of the intellectual capital variable of -0.002 with a probability value of 0.923 is more significant than 0.050; it can be concluded that H₀ is accepted so that the intellectual capital variable partially does not affect company value in the company the energy sector listed on the IDX for the 2017 to 2022 period.
coefficient value of the capital structure variable of -0.256 with a probability value of 0.020 is less than 0.050; it can be concluded that \( H_0 \) is rejected so that the capital structure variable partially hurts the company value in the company the energy sector listed on the IDX for the 2017 to 2022 period.

**DISCUSSION**

**Effect of CSR Disclosure on Company Value.** Based on the results of tests that have been carried out, CSR disclosure has no partial effect on company value in energy sector companies listed on the IDX from 2017 to 2022. The results of this study indicate that the size of CSR disclosure does not affect company value because if CSR disclosure is only considered an effort to meet public demands or regulatory demands and not an authentic commitment, then the impact on company value will be limited. Even though CSR disclosure does not directly affect company value, this does not mean that CSR disclosure practices are unimportant. Stakeholders, such as company management and the CSR team, can focus on increasing the efficiency and effectiveness of CSR disclosure. This can be done by aligning CSR programs with broader business objectives, increasing transparency in reporting, and ensuring that CSR disclosures reflect the company's core values. The results of this research are supported by (Adelina & Arza, 2021; Angela et al., 2021), which state that CSR disclosure does not affect company value due to the lack of compliance of CSR disclosure with the standards set by GRI. This research is not in line with that conducted by (Benne & Moningka, 2020; Zuhriah & Maharani, 2022), which state that CSR disclosure has a positive effect on firm value because CSR disclosure can improve corporate image, which is a measure of investors in making investments so that firm value also increases.

**The Effect of Intellectual Capital on Company Value.** Based on the results of tests that have been carried out, intellectual capital has no partial effect on company value in energy sector companies listed on the IDX from 2017 to 2022. This shows that companies with high intellectual capital do not necessarily get a higher valuation from the market. This is caused by the absence of standards that regulate quantitatively the measurement of intellectual capital. As a result, investors cannot see changes in the efficiency of a company's intellectual capital. Apart from that, investors' need for more awareness and ability to read and interpret signals related to ownership of a company's intellectual capital is also a factor causing the weak influence of intellectual capital on company value. Even though intellectual capital does not directly affect company value in the context of this research, companies can still take steps to improve intellectual capital management. This can involve identifying, measuring, and managing intangible assets such as employee knowledge, skills, and experience. The results of this study are supported by (Subaida et al., 2018; Suwandi & Susilawati, 2023), which states that intellectual capital does not affect company value due to the possibility of low investor awareness or ability to read good signals regarding company intellectual capital. This research differs from that conducted by (Fuad, 2019; Ni et al., 2020), who states that intellectual capital positively affects company value because companies with employees with broad insight will have advantages for renewal and better company image.

**The Effect of Capital Structure on Company Value.** Based on the results of tests that have been carried out, capital structure has a partial negative effect on company value in energy sector companies listed on the IDX from 2017 to 2022. This shows that an excessive capital structure or a debt proportion that is too high can hurt company value. This
is caused by the giant company debt, increasing the financial burden so the company will head towards bankruptcy. Companies can evaluate their capital structure to ensure optimal equity and debt proportion. This can involve restructuring, managing long-term and short-term debt, and increasing capital. The goal is to achieve a balanced capital structure that reduces bankruptcy risk and supports company growth and value. Although debt can have a negative impact on a company's value, not all debt is bad. Companies should be more careful in monitoring their debt needs. Using debt only when necessary and managing debt wisely can help reduce the risks associated with an unbalanced capital structure. The results of this study are supported by (Arianti, 2022; Suhandi, 2021), which states that capital structure has a negative effect on company value because the more debt a company has, the more likely the company has to pay interest and generate less cash. This can lead to financial risks that can hinder the growth of the company's value. This research is not in line with (Trafalgar & Africa, 2019), which states that capital structure does not affect company value because, for companies that go public, the company's value will be reflected in the market value of its shares.

CONCLUSION

Based on the research results, it can be concluded that CSR disclosure, intellectual capital, and capital structure simultaneously affect 76 per cent of company value in energy sector companies for the 2017 to 2022 period. Partially, CSR disclosure and intellectual capital have no effect on company value in the energy sector, while capital structure has a negative effect on company value in the energy sector. The limitation of this research is the need for more samples to be used. The research sample is limited to companies in the energy sector that consistently publish sustainability reports. This adjusts the CSR disclosure indicator, namely the GRI Standards, which must refer to the sustainability report. It is suggested that future researchers use other research objects with a more significant number of companies with consistent issuance of sustainability reports to obtain more samples. In addition, it is also suggested that future researchers use other independent variables which are assumed to affect company value significantly. Companies can pay attention to the factors that influence company value, such as capital structure, CSR disclosure, and intellectual capital. By understanding these factors, management can take appropriate steps to increase company value and create a competitive advantage.

REFERENCES


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