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FINANCIAL CONSTRAINTS VS GREEN PRACTICES: IMPACT ON FIRM VALUE ENERGY IN INDONESIA

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Abstract: The impact of eco-efficiency, asset turnover, green accounting, and financial limitations on business value in the energy industry on the Indonesia Stock Exchange is examined in this study for the years 2020–2022. SmartPLS 3 was used to analyze financial statement data from 52 energy sector companies using Structural Equation Modeling-Partial Least Square (SEM-PLS). The findings indicate that while financial limitations have no discernible impact on corporate value, green accounting, asset turnover, and eco-efficiency do. The results of this study have significant implications for understanding the variables affecting business performance and value in the energy industry, as well as the significance of asset turnover, eco-efficiency measures, and green accounting in raising firm value**.** This research is expected to contribute to practitioners, regulators, and stakeholders in Indonesia's energy sector in the future to understand the influence of these factors.
Keywords: Green Accounting, Assets Turnover, Eco-Efficiency, Firm Value, Financial Constraint

Abstrak: Dampak *eco-efficiency, asset turnover, green accounting* dan *financial constraint* terhadap nilai perusahaan pada perusahaan sektor energi di Bursa Efek Indonesia dikaji dalam penelitian ini periode 2020-2022. SmartPLS 3 digunakan untuk menganalisis data laporan keuangan dari 52 perusahaan sektor energi dengan menggunakan *Structural Equation Modeling-Partial Least Square* (SEM-PLS). Temuan menunjukkan bahwa meskipun *financial constraint* tidak memiliki dampak yang nyata terhadap nilai perusahaan, namun *green accounting, asset turnover*, dan eco-efficiency memiliki dampak yang nyata. Hasil penelitian ini memiliki implikasi yang signifikan untuk memahami variabel-variabel yang mempengaruhi kinerja dan nila perusahaan di industri energi, serta pentingnya *asset turnover*, *eco-efficiency*, dan *green accounting* dalam meningkatkan nilai perusahaan. Penelitian ini diharapkan dapat memberikan kontribusi bagi praktisi, regulator, dan pemangku kepentingan di sektor energi Indonesia di masa depan untuk memahami pengaruh faktor-faktor tersebut.
Kata Kunci: Akuntansi Hijau, Perputaran Aset, Efisiensi Lingkungan, Nilai Perusahaan, Kendala Keuangan

INTRODUCTION

Companies are established with three objectives: to generate financial returns, to benefit and benefit shareholders, and to maximise their value (Harjito et al., 2014). The value of a business should be reflected in the capital market, namely its share price (Margaretha & Pambudhi, 2015). Company value is an related measure in evaluating the capabilities and sustainability of a company. Company value does not only reflect financial aspects, but also includes reputation, sustainability, and the company's social impact on the surrounding environment.

In an increasingly complex and sustainable business world, attention to environmental factors is becoming increasingly important. In every aspect of company operations, environmental risks must be considered (Yuliani & Prijanto, 2022). The concept of green accounting, which applies the principles of sustainability in corporate financial management, is becoming a key focus for many organisations looking to achieve long-term growth. However, how green accounting, along with other factors such as assets turnover, eco-efficiency, and financial constraints, can affect Firm Value is still a growing debate.

Green accounting is considered as one way to solve current problems (Angelina & Nursasi, 2021). Green accounting emerged as an effective tool in taking into account environmental costs and benefits in corporate decision making. A company can fully contribute to protecting the environment if it shows its concern for the environment (Gunawan & Dwi Mulyani, 2023). Prior studies indicate that stock price fluctuations in environmentally conscious or green accounting firms can be attributed to market forces (Lestari & Restuningdiah, 2021). The application of green accounting has the potential to impact a company's stock price and enhance its overall worth (Wahyuni et al., 2019).

In the financial literature, assets as one of the factors affecting firm value have been a highly discussed topic. The activity ratio is a testing of how useful the management of a company manages its assets (Harjito et al., 2014). The activity ratio, also known as the activity ratio, is a ratio used to measure how effectively a person uses the assets he owns (Kasmir, 2019). A high level of assets turnover indicates that the business is using its assets well to increase sales (Novianty, 2020). However, in a business environment that is increasingly focused on sustainability, the question that arises is whether asset turnover has the same impact on firm value.

Similarly, eco-efficiency, which measures the efficiency of natural resource use and the environmental impact of business activities, is also expected to affect Firm Value. To increase company value and increase its share price, businesses can use the eco-efficiency approach as an operating strategy (Aviyanti & Isbanah, 2019). Green accounting or eco-efficiency in management techniques are two ways that environmentally friendly industrial processes are put into reality (Prasetyo & Meiranto, 2017).

The impact of financial constraints on firm value is a topic that has attracted the attention of academics and practitioners in finance and management. The concept of financial constraint refers to a situation where a firm experiences limited access to financial resources needed to expand its operations or make investments that can increase firm value. In this context, it is important to understand how these financial constraints can affect overall firm performance and value. The effect of financial constraints can impact a firm's ability to adopt sustainable practices and ultimately affect Firm Value. If investments made by a company are limited to the use of internal funds because it is difficult to obtain sufficient external funds, the company is considered to have financial constraints. (Wrońska-Bukalska, 2019).

This research is aimed at will provide useful knowledge for practitioners, regulators, and other stakeholders in the Indonesian energy sector. Companies can develop more efficient strategies to improve their long- term financial performance while paying attention to their environmental and social responsibilities by understanding how green accounting, assets turnover, eco- efficiency, and financial constraints affect firm value. Therefore, it is expected that this research will make a significant contribution to sustainable business practices and government policies that promote economic and environmental sustainability.

Agency theory is a commonly used scheme in economics and management to analyse the connection between the owners of a company and the agents employed to manage the company's assets. The theory focuses on the conflicts of interest that may arise between these two parties and how these conflicts can be addressed through appropriate incentives. Recent research has highlighted the importance of a good incentive structure in reducing moral agency and undesirable agent behaviour. Appropriate incentive levels can support agents to act in accordance with the owners' interests, reducing the risk of opportunistic agent behaviour (Zhou & Zhou, 2019). Thus, agency theory provides valuable insights for managers and company owners in designing an effective incentive system to ensure the long-term success of the

company. Further research conducted by Jensen & Meckling (2020) also emphasises the importance of transparency and accountability in the agent-owner relationship to optimise overall company performance.

Signaling theory is a theory widely used in economics and social sciences to explain how individuals or entities convey information to other parties to reduce uncertainty. This theory states that parties who have more information will take certain actions to communicate that information to other parties. In an economic context, this theory is often used to describe the conduct of companies in communicating the quality of products or services.

According to recent research by Jones & Smith (2019), signalling theory can also be applied in the context of the labour market. They found that individuals who have high educational or training credentials tend to attract the attention of potential recruiters or employers more easily. By having strong credentials, the individual indirectly signals to the employer that they have the desired abilities or qualifications. This leads to better placement in the labour market and the opportunity to earn a higher salary.

Firm Value is an important concept in the business world that has been the focus of researchers' attention since the last few years. Recent research shows that Firm Value is not only reflected in financial aspects, but also involves non- financial factors such as corporate reputation, sustainability, and business ethics. According to Jones & Jones (2019), Firm Value can be enhanced through innovative strategies that consider environmental sustainability, corporate social responsibility, and customer satisfaction. In addition, research by C. Smith et al., (2020) highlights the crucial of ethical management in creating long-term value for companies. They concluded that companies that prioritise integrity and transparency tend to have better financial performance and higher market value. Thus, Firm Value is not only about financial achievements, but also about how the company runs its overall operations by paying attention to relevant non- financial aspects.

The environment is essential for the survival of humans and other creatures on earth. According to research by J. Smith, Anderson, et al., (2019), rapid climate change and environmentally destructive human activities have caused significant damage to ecosystems. The study also highlighted the importance of conservation of natural resources and efforts to minimise our ecological footprint. In addition, another study by Brown (2020) showed that air and water pollution caused by industrial and transport activities adversely affects human health

and overall environmental sustainability. Therefore, a deep understanding of the environment and collective efforts to protect it are key in maintaining the balance of ecosystems and realising a sustainable future.

Green accounting, also known as environmental accounting, is an approach that integrates environmental factors in traditional accounting practices to reflect the economic, social, and environmental impacts of business activities. Researchers highlighted the importance of green accounting in measuring companies' sustainability performance (Yunus, 2019). They found that green accounting can assist companies in identifying environmental costs and benefits more accurately, thus enabling management to make more sustainable decisions.

In addition, in his research Yunus (2019), additionally emphasized how using green accounting might enhance the name of company in the perspective of customers who are becoming more environmentally conscious. These findings are consistent with previous studies showing that environmentally responsible accounting practices can improve the long-term financial performance of companies. Thus, this recent research makes a valuable contribution in strengthening the argument for the adoption of green accounting as an integral part of modern corporate accounting practices.

To assess how effectively a business uses its assets to generate revenue, an important financial ratio is assets turnover. According to Chandra, A., (2019), the total amount of company sales is divided by the total assets owned. This ratio shows how efficient the company is in generating sales from its assets.

Research by J. Smith (2019) shows that assets turnover can vary by industry depending on the type of assets owned and the company's business model. Companies with high asset turnover tend to be more efficient in managing their assets and generate greater revenue. However, according to Jones, R (2019), high asset turnover does not always guarantee the success of the company. It is also necessary to consider other factors such as asset quality, marketing strategy, and overall market conditions in interpreting this ratio.

Eco-efficiency is an important concept in sustainable development that emphasises efficiency in the use of natural resources and energy and reducing environmental impacts. According to Elkington, J (2019), eco-efficiency is "the process of producing goods and

services that generate economic value added with minimal environmental impact." This concept has become a major focus in sustainable business strategies across industries.

Research conducted by Schaltegger & Burritt (2018) highlights the importance of integrating eco-efficiency in corporate management. They emphasise that by applying eco-efficiency principles, companies can achieve long-term competitive advantage while protecting the environment. This reflects that eco-efficiency is not only beneficial for the environment, but also for economic growth and corporate sustainability.

The implementation of eco-efficiency also includes social aspects in business practices. According to Jorgensen, M. S (2020), sustainable eco-efficiency must pay attention to the balance between economic benefits, environmental protection, and social welfare. Thus, eco-efficiency is not only about efficiency in production, but also about corporate social responsibility.

Financial constraints refer to situations where companies face constraints in accessing the financial resources needed to invest or expand. This may be due to limited liquidity, increased cost of capital, or inability to obtain loans from financial institutions. Financial constraints can also limit The company's ability to take on high-value projects, which in turn can affect the growth of the company itself. Meanwhile, recent research by Cai et al., (2020) highlights the important role of fiscal policy in overcoming financial constraints in the public sector. They found that prudent fiscal policy can help mitigate the negative influence of financial constraints on economic growth.

Understanding the impact of financial constraints on firm value has important consequences in making investment decisions and corporate financial policies. Financial managers need to consider the level of limitations financial constraints company in planning investment and capital allocation strategies. In addition, government policies and financial institutions also need to pay attention awareness to the impact of the financial constraints.

If businesses implement green accounting in the long run, they will be able to reduce production costs and operational costs. This is because green accounting methods involve companies to consider environmental costs as a component of their expenses (Dewi & Narayana, 2020). Firm Value, on the other hand, is a measure of the total Firm Value reflected in its stock price. Research by Li, X., Wang & Zhao highlights the correlation between green accounting and Firm Value. They found that the adoption of environmentally friendly

accounting practices can increase Firm Value by increasing investor confidence, reducing environmental risks, and improving the long-term performance of the company. Another study by Zhang, M., Guo & Wang (2020) adds a new dimension to this relationship by showing that green accounting not only impacts Firm Value directly through better financial performance, but also through corporate reputation mechanisms. Companies that implement sustainable accounting practices in a more transparent and environmentally responsible manner tend to have a better reputation in the eyes of consumers and investors, which in turn can increase overall Firm Value.

H1: Green accounting has a positive relationship with Firm Value.

The amount of sales obtained for each rupiah recorded in the total assets is referred to as assets turnover (Hery, 2018). Firm Value, on the other hand, reflects the market price of the company as mirored in its share price. The correlation between assets turnover and Firm Value has been an interesting research topic in the field of corporate finance. According to research by A. Smith & Jones (2019), they found a positive correlation between assets turnover and Firm Value. They argue that a higher level of asset turnover indicates the level of efficiency of selling assets owned by a company. Ultimately, this can increase the overall price of the company. This study provides a solid basis for developing the hypothesis that there is a positive correlation between asset turnover and business value.

H2: Assets turnover has a positive relationship with Firm Value.

Eco-efficiency is a concept that arises from the idea that companies can achieve economic efficiency while reducing environmental impact. Eco-efficiency is the process of producing goods and services that produce economic added value with minimal environmental impact (Elkington, J., 2019). Research by Schaltegger & Burritt (2017) emphasises the importance of eco-efficiency to upgrade corporate environmental performance.

H3: Eco Efficiency has a positive relationship with Firm Value.

The definition of financial constraint according to Wasiuzzaman & Shaistha (2015) the difficulty in raising external funds, the company cannot meet its operational needs, so the company seeks cheaper financing and relies on its internal funds. It can be said that companies with financial constraints invest less in high-risk projects (Nasrin & Mohammad, 2016). Empirical studies have shown that the existence of financial constraints can have a significant effect on firm value. Companies that experience financial constraints tend to have limitations

in expanding their business, product innovation, or investing in assets that can increase their competitiveness. This can hinder the development of the company and ultimately affect the valuation of the company in the market.

H4: Financial constraints have a negative relationship with Firm Value.

METHOD

The financial statements and annual reports of the corporation served as the study's source of data. This information was taken from the Indonesia Stock Exchange's 2020–2022 financial report database. The Indonesia Stock Exchange's official website, www.idx.co.id, provides data from two separate sources, which are used in documentary data collection methodologies.

The data in this study was analysed apply Structural Equation Modeling-Partial Least Squares (SEM-PLS) with the SmartPLS 3 tool. The outer model in factor analysis is the link between latent variables or constructs and observed indicators. The outer model is used to measure the extent to which the observed indicators can represent constructs that cannot be observed directly. According to Hair et al., (2019), "The outer model is used to evaluate the quality of measurement of latent variables or constructs by looking at the extent to which the observed indicators can estimate latent variables well." By using the outer model, researchers can identify whether the selected indicators are appropriate and good enough to measure the desired construct.

Inner model is a concept used in complex set theory to understand the structure of larger sets. In set theory, inner model refers to a mathematical construct that allows us to understand how fundamental mathematical sets such as integers or irrational numbers can be viewed from a deeper perspective. According to Steel (2019), the inner model is an important tool in descriptive set theory that allows mathematicians to understand the complex properties of mathematical sets in a more structured way. By understanding the inner model, we can see how basic maths concepts can be applied and extended into more complex and abstract structures.

This study uses a purposive sample of 81 companies listed on the Indonesia Stock Exchange in 2020-2022. These companies must report their financial and annual reports consistently. The result is 52 companies included in the criteria sample.

Table 1. Research Sample

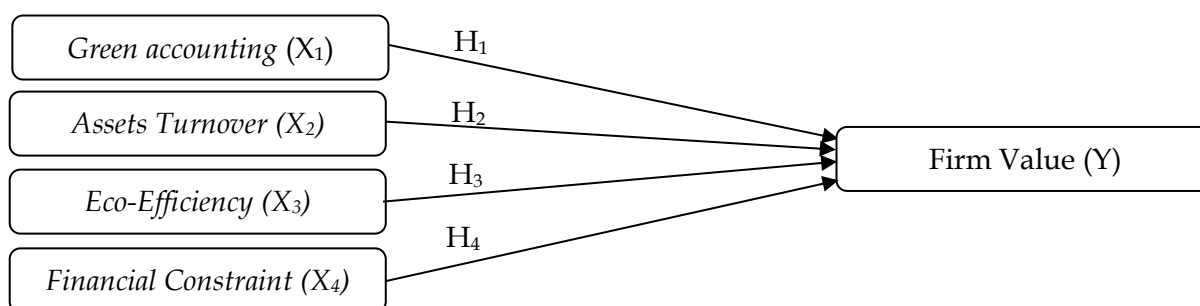| Criteria	Total
Energy Sector Companies Listed on the Indonesia Stock Exchange Starting 2020-2022	81
Companies that do not publish annual reports from 2020-2022	(24)
Companies Whose Financial Statements Are Not Available on the Indonesia Stock Exchange Website	(5)
Total Observation Data	52

Source: www.idx.co.id

Figure 1. Conceptual Framework

Table 2. Operational Variable

Variabel		Indicator	Reference
Dependent	Firm Value (Y)	PBV = Share Price / book value per share	(Sudjiman & Sudjiman, 2022), (Rokhayati et al., 2022)
Independent	Green accounting (X1)	Indicators in the application of green accounting in this study are measured using Dummy Variables with the following criteria: 1 = Companies that have an environmental cost component 0 = Companies that do not have an environmental cost component	(Dianty, 2022), (Katarina, 2023)
	Assets turnover (X2)	TATO = Net sales / total assets	(Hirvaniya, 2023), (Sanjaya & Rahayu, 2022)
	Eco-efficiency (X3)	1 = companies that have ISO 140010 certification 0 = companies that are not ISO 140010 certified	(Savitriÿ et al., 2023)

	Financial constraint (X4)	Whited and Wu Index (2006) dihitung dengan rumus $$= -0{,}091CF_{i,t} - 0{,}062DIVPOS_{i,t} + 0{,}021TLTD_{i,t} - 0{,}044LNTA_{i,t} + 0{,}102ISG_{i,t} - 0{,}035SG_{i,t}$$ dimana: **CF** = Cash Flow / Total Assets **DIVPOS** = dummy variable, which takes the value of 1 if the company pays cash dividends and 0 otherwise. **TLTD** = Long Term Debt / $Total\ Assets$ **LNTA** = Ln (Total Assets) **ISG** = Company's industry sales growth **SG** = Current Year Sales / Previous Year Sales - 1	(Puspitarini & Kurniawati, 2023), (Brigita & Widjaja, 2021)
Control	Profitabilitas	ROA = Earning after tax / total asset	(Sudjiman & Sudjiman, 2022), (Rokhayati et al., 2022)
	Firm size	Size = Ln (Total Asset)	(Katarina, 2023)
	Likuiditas	Current Ratio=(Current Assets)/(Current Liabilities)	(Sudjiman & Sudjiman, 2022)
	Leverage	Debt To Equity= total liability / total equity	(Kinasih & Yoganingsih, 2023)

Source : Data processed by researchers, 2023

RESULTS AND DISCUSSION

It is possible to see the descriptive statistical data used in this investigation. The FV-symbolized company value ranges from a low of - 1,215,000 to a maximum of 2,215,000, with an average value of 178,231. 2,785,000. This demonstrates that mining businesses often turn in their financial reports ninety-five days following the yearly book closing date. Furthermore, the study's variables' mean, median, maximum, and minimum values are also displayed. It is also evident from the standard deviation value that the data used has a normal data distribution because higher quality data is produced at lower standard deviation values (Hidayat et al., 2019).

Table 3. Descriptive Statistics

Variables	Mean	Median	Min	Max	S.DEV
GA	0,15555556	0.000	0.000	1.000	0,28958333
AT	61.128	43.000	0.000	317.000	60.212
EE	0,40069444	1.000	0.000	1.000	0,34305556
FV	178.231	149.000	-2.785.000	2.215.000	364.889
FC	-500.449	-95.000	-57.426.000	-1.000	4.590.733
PF	5.910	3.000	-41.000	62.000	16.160
LK	187.340	137.000	1.000	1.241.000	191.610
LV	21.794.577	87.000	-2.881.000	1.542.164.00	132.995.73
FZ	2.515.179	2.866.000	22.000	3.851.000	971.721

Source: SmartPLS 3 Data Processed, 2023

The validity and reliability test comes first, followed by the outer loadings test, which gauges how well the indicators used to assess the construct being measured measure up to the measurement model (Outer model) in SEM-PLS.

Testing the outside loading is the first test that is conducted to determine validity and reliability. It can be said that every indicator has excellent construct measurement capabilities. Because, according Hair et al., (2020) if the outside loading is greater than 0.7 or 0.5, it is considered good. Testing the construct's reliability is the next essential step. There are two ways to do this test: Cronbach's Alpha and Composite Reliability (CR).

Table 4. Outer Loading

	AT	EE	FC	GA	LV	LK	FV	PF	FZ
LV					1.000				
LK						1.000			
PF								1.000	
FZ									1.000
GA				1.000					
AT	1.000								
EE		1.000							
FV							1.000		
FC			1.000						

Source: SmartPLS 3 Data Processed, 2023

Next, evaluate the constructions' dependability. Two methodologies are available for assess construct reliability: composite reliability (CR) and Cronbach's alpha (o). The consistency between indicators used to quantify constructions yields Cronbach's alpha, whereas composite reliability (CR) weighs each indicator to establish a structure's dependability (Hair et al., 2020).

The information used is trustworthy. Because a data set is considered dependable if its Composite Reliability (CR) value is above 0.7 and its Cronbach's alpha value is more than 0.6. Furthermore, table 4 displays the data's convergent validity value for the information shown in the Average Variance Extracted (AVE) column. There must be a standard AVE value greater than 0.5. Based on the convergent validity test, it can be said that the research data is secure.

Table 5. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	AVE
LK	1,00	1,00	1,00	1,00
LV	1,00	1,00	1,00	1,00
PF	1,00	1,00	1,00	1,00
FS	1,00	1,00	1,00	1,00
GA	1,00	1,00	1,00	1,00
AT	1,00	1,00	1,00	1,00
EE	1,00	1,00	1,00	1,00
FV	1,00	1,00	1,00	1,00
FC	1,00	1,00	1,00	1,00

Source: SmartPLS 3 Data Processed, 2024

Doing a discriminant test is the last step. Testing cross loading is how this test is conducted. The two tests for cross loading are HTMT and Fornell-Lecker. Discriminant validity test using Fornell-Lesser criterion, which demonstrates that the data utilized meets the requirements where the greatest value is shown at the top. However, the findings of the HTMT discriminant validity assessment demonstrate that the data employed is likewise safe or compliant with the criteria. This is as a result of each data point's significance level being less than 0.9 (Hair et al., 2020).

Table 6. Discriminant validity-Fornell-Lacker Criterion

	AT	EE	FC	GA	LV	LK	FV	PF	FZ
AT	**1.000**								
EE	-0.082	**1.000**							
FC	0.020	-0.061	**1.000**						
GA	0.145	-0.068	0.048	**1.000**					
LV	0.100	0.012	0.012	-0.014	**1.000**				
LK	-0.129	0.058	0.007	0.142	-0.064	**1.000**			
FV	0.349	0.154	0.026	0.153	0.511	-0.340	**1.000**		
PF	0.383	0.027	-0.014	0.052	-0.090	0.144	0.077	**1.000**	
FZ	0.065	-0.017	-0.026	-0.053	-0.113	-0.039	0.084	-0.062	**1.000**

Source: SmartPLS 3 Data Processed, 2024

Table 7. Discriminant validity-HTMT

	AT	EE	FC	GA	LV	LK	FV	PF	FZ
AT									
EE	0.082								
FC	0.020	0.061							
GA	0.145	0.068	0.048						
LV	0.100	0.012	0.012	0.014					
LK	0.129	0.058	0.007	0.142	0.064				
FV	0.349	0.154	0.026	0.153	0.511	0.340			
PF	0.383	0.027	0.014	0.052	0.090	0.144	0.077		
FZ	0.065	0.017	0.026	0.053	0.113	0.039	0.084	0.062	

Source: SmartPLS 3 Data Processed, 2024

The model's structural analysis involves multiple steps, including determining whether the model is collinear with the structure, analyzing the path coefficients' extent and significance, calculating the R2 value for endogenous factors in a sample, calculating the effect size (f2) in a sample, and determining the significance of Q2 predictions (Hair et al., 2020).

There is no discernible multicollinearity in the coloniality test results for the model that was employed. This is demonstrated by the bivariate relationship between construct scores of less than 0.50 and the VIF value of all variables being less than 3.0. This is consistent with the justification found in the study of Hair et al., (2020) which clarifies that there is no collinearity issue if the VIF value is less than 3. Furthermore, if the bivariate correlation coefficient (VIF) between the generated scores indicates a correlation between the two variables of greater than 0.50, there may be a multicollinearity issue that affects the sign of the large or small path coefficient.

Table 8. Outer & Inner VIF

	Outer VIF		Inner VIF								
	VIF	LK	LV	PF	FS	GA	AT	EE	FV	FC
LV	1,00								1.052	
LK	1,00								1.098	
PF	1,00								1.271	
FS	1,00								1.038	
GA	1,00								1.063	
AT	1,00								1.311	
EE	1,00								1.020	
FV	1,00									
FC	1,00								1.007	

Source: SmartPLS 3 Data Processed, 2024

Green accounting has a significant impact on Firm Value, as indicated by the findings of bootstrapping study with a significance level of alpha 0.05 or 5%, based on the path analysis results. The green accounting p-value is (0.00) ÿ (0.05). As a result, H1 is deemed acceptable. When it comes to firms in the energy sector, green accounting significantly affects firm value.

In addition, Assets turnover is seen to have a p-value (0.001) ÿ (0.05), this indicates a considerable correlation between Assets turnover and Firm Value. Thus, it can be concluded that $_{H2}$ is accepted. While Eco-efficiency has a p-value (0.00) ÿ (0.05). This shows that Eco-efficiency has a significant effect on Firm Value so that H3 is accepted. Furthermore, Financial constraint has a p-value (0.55) ÿ (0.05). This shows that Financial constraints have no effect on Firm Value, so H4 is rejected.

Analyzing R squared is the next stage. Because it displays the amount of variance that may be explained by a variable in light of the expected variables in the model, this stage attempts to assess the predictive power of the model. The model's predictive ability increases with its R square value. 51.3% is the value of R squared, while 48.6% is the value of adj R squared. This indicates that the dependent variable can be partially explained by 51.3% of the independent factors. Conversely, the remaining factors are those that the researchers did not include in their model.

The study's last test measures the Q-Square (Q2) value; to do this, a blindfold test on SmartPLS is used. By Hair et al., (2020) An assessment of how well the PLS-SEM model predicts the dependent variable is given by the Q-Squared test. With a Q2 value of 0.308, the model prognosis assessment is considered moderate. This is stable with the justification provided by Hair et al., (2020) which states that Q2 above 0.25 and 0.50 indicates moderate and large predictive power.

Table 9. Structural Model and Hypothesis Testing

	Original Sample (O)	Sample Mean (M)	Std.Deviation	T Statistics	P Values
AT -> FV	0.205	0.218	0.061	3.368	0.001
EE -> FV	0.199	0.200	0.050	3.953	0.000
FC -> FV	0.026	0.025	0.044	0.592	0.555
GA -> FV	0.192	0.196	0.052	3.701	0.000
LV -> FV	0.492	0.454	0.201	2.443	0.015
LK -> FV	-0.328	-0.335	0.055	5.977	0.000
PF -> FV	0.083	0.089	0.071	1.177	0.240

Source: SmartPLS 3 Data Processed, 2024

Table 10. R Squared Data

	R Square	R Square Adjusted
FV	0.513	0.486

Source: SmartPLS 3 Data Processed, 2024

Table 11. Construct Crossvalidated Redundancy

	SSO	SSE	Q² (=1-SSE/SSO)
AT	156.000	156.000	
EE	156.000	156.000	
FC	156.000	156.000	
GA	156.000	156.000	
LV	156.000	156.000	
LK	156.000	156.000	
FV	156.000	107.948	0.308
PF	156.000	156.000	
FZ	156.000	156.000	

Source: SmartPLS 3 Data Processed, 2024

This study reveals that in energy sector companies, green accounting has a significant impact on firm value, so it can be concluded that hypothesis H1 is accepted. Green accounting, which Green accounting, an accounting practice that takes into account environmental side in financial statements, appears to make a positive contribution to the assessment of Firm Value in the energy sector. The study conducted by Johnson et al., (2020) supports this finding by showing that companies that apply Green accounting tend to be valued higher by the market and investors.

In the context of the energy industry, where environmental impacts and sustainability are increasingly becoming a key focus, green accounting can be an effective strategy in improving corporate image and public trust. By integrating environmental factors into financial performance measurement, companies can create sustainable long-term value and reduce risks related to environmental issues.

The results of the analysis show that Assets turnover has a significant p- value, which is (0.001) ÿ (0.05), which indicates a considerable correlation between the two variables. This indicates that the company's level of efficiency in using its assets to generate revenue has a direct impact on the overall Company Value.

According to research conducted by J. Smith, Johnson, et al., (2019), the importance of Assets turnover in measuring company performance has been widely understood in the context of corporate finance. Assets turnover is a financial ratio that measures how orderly a company

uses its assets to generate sales. Thus, the significant correlation between Assets turnover and Firm Value provides a strong illustration of how a company's operational efficiency can affect market valuation and overall company performance.

In the results of the study, it was found that Eco-efficiency has a significant p-value, which is (0.00) ÿ (0.05). This means that Eco-efficiency has a significant influence on Firm Value. Thus, hypothesis H3 in this study can be accepted. Eco- efficiency in this context refers to efficiency in the use of natural resources and the environment and how it can have an impact on company performance in terms of value.

This research is relevant to previous findings, which show that practices that focus on sustainability and environmental responsibility can contribute positively to firm performance. Eco-efficiency becomes one of the important aspects in this case, as it can not only reduce the company's environmental impact, but can also create added value in the long run.

The results of this study indicate that financial constraints do not have a negative effect on Firm Value. When companies experience financial limitations, this can raise doubts among investors about the company's ability to generate profits in the future, which in turn can reduce the company's value. However, research conducted by B. Smith (2018), found that companies that experience financial constraints can experience an increase in firm value in the long term. This may be due to the company's efforts to seek additional resources and operational diversification in response to financial limitations.

On the other hand, research by Johnson et al., (2020) also shows that financial constraints are not directly correlated with a decrease in firm value. They found that other factors such as product innovation, marketing strategy, and risk management play an important role in determining firm value. In this context, it is important to consider that the relationship between financial constraints and firm value is not always linear. Many internal and external factors can influence how strong or weak the influence of financial constraints is on firm value.

CONCLUSION

Testing how green accounting, assets turnover, eco-efficiency, and financial constraints affect firm value is the main objective of this study. Specifically, this study uses green accounting, assets turnover, eco-efficiency, and financial constraints to test their influence on firm value in energy sector companies as the object of research. The research find out display the direct effect of each variable on Firm Value. This study shows that Green Accounting,

Assets Turnover, and Eco-Efficiency have a significant effect on Firm Value in energy sector companies, while financial constraints have no significant effect. Green accounting, assets turnover, and eco-efficiency are identified as important factors that influence company performance and value. Another thing related to financial constraints in this study makes a new view of the effect of financial constraints on firm value. In most cases, financial constraints or financial limitations have a negative impact on firm value; however, in this study, financial constraints do not have a negative effect on firm value. This can happen because financial constraints become pressure for company management to be more careful and efficient in making investment choice. In addition, the shortcoming of this study is that it does not discuss information asymmetry that may affect the results of data analysis and interpretation between the effect of financial constraints on firm value. The implications of these findings indicate the need for further research that pays attention to the role of financial constraints and information asymmetry in the context of the influence of these factors on firm value in the energy sector.

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