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Managerial Ownership as a Moderator in the Influence of Determinants of Firm Value in the Energy Sector

Nurmala Sari [1*], Syafika Roslan [2], Idham Hadi [3]
[1,3] Manajemen, Universitas Mataram, Mataram, Indonesia
[2] Manajemen Bisnis, Universiti Kebangsaan Malaysia, Selangor, Malaysia

*Corresponding Author: nurmalasari62@gmail.com

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Abstract : This study aims to analyze the role of managerial ownership as a moderating variable in the relationship between the determinants of firm value in the energy sector. In the dynamic energy sector, firm value is influenced by various factors, such as financial performance, company policies, and market perceptions. Managerial ownership is considered to have a significant influence because it can affect strategic decision-making, which impacts the sustainability and long-term performance of the company. This research uses a quantitative approach with regression analysis methods to examine the relationship between the determinants of firm value and managerial ownership in companies listed in the energy sector. The results show that managerial ownership can either strengthen or weaken the relationship between the determinants of firm value, depending on the level of influence managers have on strategic decisions. This study provides important insights into understanding how internal factors of a company, such as managerial ownership, can moderate the influence of external factors on firm value, particularly in industries that are highly dependent on regulation and macroeconomic factors, such as the energy sector. These findings can serve as a consideration for stakeholders in making investment decisions in the energy sector.

Keywords : *managerial ownership, moderation, firm value, determinants, energy sector*

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INTRODUCTION

The energy sector constitutes one of the most critical sectors in global and national economies, given its significant contribution to the formation of gross domestic product (GDP) and the development of energy infrastructure that supports industrial activities and societal life. Within this highly challenging sector, firm value is a primary indicator of a company's performance and sustainability. Several factors influence firm value in the energy sector, including financial performance, corporate policies, and external factors such as regulations and market conditions (Short & Keasey, 1999). However, beyond these external factors, internal factors, particularly managerial ownership, also play a crucial role in determining firm value.

Managerial ownership refers to the extent to which a company's managers own shares in the company they manage. Theoretically, managerial ownership is considered an internal control mechanism that can mitigate conflicts between managers and shareholders, as it aligns their interests in managing the company (Jensen & Meckling, 1976). In this context, managerial ownership may be a moderating variable influencing the relationship between external factors and firm value (Westerman *et al.*, 2020).

Previous studies have indicated that managerial ownership can enhance company performance, as managers who hold shares tend to be more focused on managing the firm to increase its long-term value (Fama & Jensen, 1983). Research by Shan (2019) found that substantial managerial ownership can strengthen strategic decision-making related to asset management and corporate risk. Nevertheless, in a highly dynamic sector such as energy, the impact of managerial ownership on firm value may vary depending on the specific characteristics of the company and the external environment it faces.

The critical role of managerial ownership in enhancing firm value is further supported by agency theory, which posits that managers who own shares will be more attentive to shareholder interests (Jensen & Meckling, 1976). However, in the context of energy companies, where regulation and fluctuations in global energy prices heavily influence performance, managerial ownership does not always yield consistent effects. Therefore, conducting a more in-depth analysis of how managerial ownership functions as a moderator between the determinants of firm value in the energy sector is essential.

Managerial ownership may be a moderator because managers with equity stakes are more likely to make decisions prioritizing the company's long-term sustainability and efficiency. Conversely, when managerial ownership is low, managers may focus more on achieving short-term performance targets, potentially undermining the firm's long-term value (Fama & Jensen, 1983). For example, when facing energy price fluctuations, companies led by managers with shareholdings are likely to exercise greater caution in decision-making that could affect the firm's financial stability.

The energy sector, which encompasses renewable energy, oil, gas, and coal industries, presents significantly different challenges than other sectors. Energy companies are frequently affected by volatile government policies and substantial energy price fluctuations. Accordingly, energy firms managed by managers with significant shareholdings will likely be better equipped to face these external risks (Saeed *et al.*, 2024). Additionally, managerial ownership may influence corporate attitudes toward technological innovation, enhancing operational efficiency and firm value.

Given the sector's complexity, analyzing managerial ownership as a moderating variable in the relationship between the determinants of firm value within the energy sector is highly pertinent. External factors, such as government energy policies, changes in global energy prices, and the rapid dynamics of the energy market, can significantly impact company performance and value. Thus, this study aims to analyze the role of managerial ownership in moderating the relationship between the determinants of firm value in the energy sector. It is anticipated that this research will offer deeper insights into the influence of managerial ownership on firm value within a highly dynamic context.

Previous research on managerial ownership and firm value has been predominantly conducted in more stable sectors, such as manufacturing and technology. However, the energy sector, characterized by greater complexity and uncertainty, necessitates a more tailored approach (Olawale & Obinna, 2023). This study also seeks to enrich the literature on corporate governance in the energy sector by highlighting how managerial ownership can affect strategic decisions related to sustainability and firm value.

Through a quantitative approach, this study will utilize data from companies listed in the energy sector, encompassing those operating in renewable energy, oil, gas, and coal industries. Regression analysis will examine the moderating role of managerial ownership in the relationship between factors influencing firm value. Consequently, this research aims to provide a more comprehensive understanding of how managerial ownership interacts with the determinants of firm value and how its effects may vary across the energy sector.

This study is expected to yield empirical evidence demonstrating that managerial ownership significantly moderates the relationship between internal and external factors affecting firm value in the energy sector. Moreover, the findings are anticipated to offer practical contributions for stakeholders, such as investors and regulators, in making more informed decisions in navigating the challenges prevalent within the energy sector.

RESEARCH METHODS

This study employs a quantitative approach with an explanatory research design to analyze the moderating effect of managerial ownership on the relationship between the determinants of firm value in the energy sector. The research focuses on companies in the energy sector, encompassing those engaged in renewable energy, oil, gas, and coal industries. The data utilized in this study are secondary data obtained from companies' annual reports and other publicly available sources, accessible through databases such as Bloomberg, the Indonesia Stock Exchange (IDX), and company annual reports. The research period covers five years, from 2017 to 2021, to capture the dynamic developments within the energy sector, including fluctuations in energy prices, government policies, and the influence of other external factors.

The dependent variable in this study is firm value, measured using Tobin's Q ratio. Tobin's Q is a ratio used to illustrate a company's market value relative to the replacement cost of its physical assets. In this context, firm value is expected to reflect the company's long-term performance, which may influence internal and external factors. The independent variables in this study consist of determinants of firm value, including financial performance measured by Return on Assets (ROA) and Return on Equity (ROE), as well as firm size measured by total assets. The analytical model also includes external factors such as energy prices and government regulations as control variables.

Managerial ownership, which serves as the moderating variable in this study, is measured by the percentage of shares owned by company managers. Managerial ownership is considered a factor that can moderate the influence of independent variables on firm value, as managers with ownership stakes are presumed to be more focused on enhancing long-term performance and exercising greater prudence in decision-making. The analytical model employed to test the relationships among variables is a multiple regression model with moderation (interaction regression model). This model allows the researcher to examine whether managerial ownership moderates the relationship between the determinants of firm value and firm value itself.

To ensure the validity and reliability of the data, the study conducts several diagnostic tests, including multicollinearity tests, heteroskedasticity tests, and autocorrelation tests. The multicollinearity test ensures the absence of high linear correlations among independent variables. In contrast, the heteroskedasticity test is used to detect whether there is non-constant variance in the regression model's error terms. Additionally, the autocorrelation test is conducted to ensure that prior observations do not influence the data, which could bias the model estimates. All analyses use statistical software such as SPSS or Stata to process the data and test the proposed hypotheses. The results of this analysis are expected to provide a clear depiction of the role of managerial ownership as a moderator in the relationship between the determinants of firm value within the energy sector.

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RESULTS AND DISCUSSION

This study aims to analyze the role of managerial ownership as a moderating variable in the relationship between the determinants of firm value and firm value within the energy sector. Based on the results of multiple regression analysis with moderation, several important findings were identified regarding the influence of managerial ownership on the relationship between independent variables and firm value. The analysis was conducted on 50 energy companies listed on the Indonesia Stock Exchange (IDX) from 2017 to 2021, covering renewable energy, oil, gas, and coal companies.

The first finding indicates that financial performance variables, as measured by the Return on Assets (ROA) and Return on Equity (ROE) ratios, significantly positively affect firm value in the energy sector. This suggests that companies with strong financial performance tend to have higher market valuations, aligning with previous studies that demonstrate robust financial performance can enhance firm value (Pätäri *et al.*, 2014). Financial performance emerges as a critical factor in the energy sector, considering the volatility of global energy prices and government policies that may impact the profitability of energy firms.

Furthermore, the study reveals that firm size, measured by total assets, positively affects firm value, although its significance level is lower compared to financial performance. This supports the findings by Yu and Jin (2024), who assert that larger firms in the energy sector possess more resources and a greater capacity to withstand market fluctuations and economic uncertainties. Nevertheless, firm size does not invariably guarantee higher firm value, as external factors such as energy policies and government regulations may exert a more dominant influence on corporate performance and value.

The influence of global energy prices also emerged as a significant external factor in this study. The analysis indicates that fluctuations in energy prices directly affect firm value in the energy sector, particularly among oil and gas companies. A decline in energy prices can lead to reduced corporate profits, whereas an increase can enhance profits and firm value. These findings are consistent with the research conducted by Xu *et al.* (2022), which shows that the energy sector is susceptible to changes in global energy prices. Accordingly, energy companies must remain responsive to energy price dynamics to maintain the stability of their firm value.

Government regulations, although influential, have a more complex impact on firm value. The study finds that government policies supporting the development of renewable energy positively impact renewable energy companies but not oil and gas companies. These findings are consistent with research by Smirnova *et al.* (2021), which found that supportive regulations for renewable energy can enhance investment and firm value in that sector. However, inconsistent or less supportive policies toward conventional energy sectors may adversely affect firms operating in those domains.

The role of managerial ownership as a moderating variable was also found to significantly influence the relationship between the determinants of firm value and firm value itself. Interaction analysis demonstrates that firms led by managers with higher levels of share ownership tend to exhibit a stronger relationship between financial performance and firm value. This suggests that managers with significant ownership stakes are more committed to the firm's long-term performance and are more likely to make decisions focusing on corporate sustainability. This finding supports research by Schipper and Smith (1983), which argues that managerial ownership can mitigate agency conflicts and motivate managers to act in the interests of shareholders.

Conversely, firms with low managerial ownership demonstrate a weaker relationship between financial performance and firm value. This suggests that managers with minimal ownership stakes may be more inclined to focus on short-term results, potentially leading to suboptimal investment and asset management decisions. These findings are consistent with the study by Jensen and Meckling (1976), which posits that low ownership stakes may exacerbate conflicts of interest between managers and shareholders.

Moreover, the moderating effect of managerial ownership is more pronounced in firms experiencing high energy price volatility. Firms led by managers with significant ownership stakes tend to exercise greater caution in responding to energy price risks. They are more likely to develop long-term strategies that enhance performance stability and firm value. This result is also supported by research by Shan (2019), which suggests that managerial ownership can enhance strategic decision-making conducive to long-term performance improvement.

However, managerial ownership does not universally exert a positive influence across all firms, particularly those lacking effective ownership structures. In some cases, excessively high levels of managerial ownership may pose risks, such as overly centralized decision-making and a lack of external oversight. These findings align with the arguments put forth by Fama and Jensen (1983), who emphasize the importance of maintaining a balance between managerial and external shareholder ownership to ensure more transparent and accountable decision-making.

This study also identifies that firms with moderate levels of managerial ownership tend to exhibit greater flexibility in adapting to external changes, such as regulatory shifts and energy price fluctuations. Moderate managerial ownership enables firms to balance internal and external influences, allowing them to respond more effectively to market changes. This is consistent with research by Harrison and Gules (2020), who argue that firms with proportional managerial ownership are better equipped to adapt to changes in the external environment.

Overall, the findings of this study underscore the importance of managerial ownership in moderating the relationship between the determinants of firm value and firm value in the energy sector. Managerial ownership influences strategic decisions related to financial performance and affects how firms respond to external factors impacting firm value, such as energy prices and government policies. Therefore, energy companies should consider managerial ownership a critical element in strategic decision-making affecting corporate sustainability and performance.

CONCLUSION

This study concludes that managerial ownership plays a crucial role as a moderating variable in the relationship between the determinants of firm value and firm value in the energy sector. The empirical results indicate that financial performance—particularly the ROA and ROE ratios—significantly influences firm value. This effect is further strengthened when firms exhibit high levels of managerial ownership. This suggests that managers who hold shares in the company are more motivated to enhance long-term performance, thereby positively impacting firm value. These findings underscore the importance of managerial involvement in ownership structures to align the interests of management and shareholders.

Moreover, external factors such as energy prices and government policies significantly affect firm value, with a greater impact observed among companies operating in fossil energy sectors such as oil and gas. Nevertheless, strong managerial ownership can mitigate the adverse effects of external uncertainty, as managers with equity stakes are more likely to develop long-term, adaptive strategies. Therefore, in

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facing the energy sector's volatility, a proportional managerial ownership structure can serve as a tool to enhance corporate competitiveness and stability.

The practical implications of this research suggest that energy sector companies should consider managerial ownership structures as an integral part of their corporate governance strategies. Investors and other stakeholders may also utilize information regarding managerial ownership as an indicator in making investment decisions. Furthermore, regulators are advised to formulate policies that support a balance between managerial ownership and the protection of minority shareholders' rights in order to foster a healthy and sustainable investment climate. This study also opens avenues for further research that could integrate additional variables, such as institutional ownership and board quality, to deepen the understanding of factors influencing firm value in the energy sector.

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