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MANAGERIAL OWNERSHIP MODERATES THE RELATIONSHIP BETWEEN ENVIRONMENTAL SOCIAL GOVERNANCE AND INVESTMENT OPPORTUNITY SET WITH PERFORMANCE

Khoirunnasikin[1]*, Holiawati[2], Ani Kusumaningsih[3]
[1.2.3]Master of Accounting, University of Pamulang, Indonesia
*Corresponding Author:
anas.brad@gmail.com

Abstract
This study aims to analyze the influence of Environmental Social Governance and Investment Opportunity Set on company performance, with managerial ownership as a moderation variable. The method used is quantitative, with secondary data obtained from the company's annual report. Of the total 172 companies registered, as many as 16 companies were selected as samples through purposive sampling techniques, so that data was obtained from 96 companies analyzed. The object of this study is a company that is a member of the BGK Foundation listed on the Indonesia Stock Exchange (IDX) during the 2018–2023 period. The results of the study show that Environmental Social Governance and Investment Opportunity Set have an effect on company performance. In addition, regression moderation testing showed that managerial ownership was able to moderate the relationship between Environmental Social Governance and financial performance. However, managerial ownership is not able to moderate the relationship between the Investment Opportunity Set and the company's performance. It is hoped that the results of this research can provide investors and academics with an understanding of the factors that affect the company's performance, as well as a reference for further research in the field of business and finance.

Keywords: Managerial Ownership, Environmental Social Governance, Investment Opportunity Set, Company Performance

1. Introduction

Companies performance displays the company's condition over a certain period of time, which is the result or achievement influenced by the company's operational activities, in utilizing its resources, which is described through financial performance in empirical and periodic conditions of the company's operational effectiveness, financial conditions that reflect the company's performance are measured using financial analysis tools (Marlianita & Asiah, 2021).

Companies in carrying out their business activities are not only required to obtain economic benefits, but companies are also faced with responsibilities that must consider other broader aspects such as impact on the environment, community welfare, and integrity and transparency in company management. Therefore, companies in carrying out their business activities need to apply Environmental, Social and Governance (ESG) principles.

In 2020, the Chartered Financial Analyst Institute conducted a survey among investors to determine Environmental, Social and Governance factors regarding common considerations when making investment decisions. Of the 2,800 respondents, only 15% reported that they did not consider Environmental, Social, and Governance (ESG) factors when making investment decisions. A significant percentage of respondents, in particular

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85%, consider ESG factors when making investment decisions. Of this group, the majority consisting of 77% of respondents prioritize governance as the main factor in their investment choices. In addition, 67% of respondents considered social factors, while environmental factors were taken into account by 70% of respondents. This can also be proven according to Law number 40 of 2007 article 74 concerning Limited Liability Companies (PT) stipulates that "Companies that carry out their business activities in fields related to Natural Resources (SDA) are obliged to carry out social and environmental responsibilities" (Inawati & Rahmawati, 2023).

On the other hand, the Investment Opportunity Set (IOS) is a choice of future investment opportunities that can affect the growth of the company's assets or projects that have a positive net present value. So IOS also has a very important role in the company's performance because IOS is an investment decision in the form of a combination of assets in place and investment options in the future, where IOS will affect the value and performance of a company (Pagalung, 2003).

For companies, investment opportunities can indeed be seen with the naked eye, so that this opportunity is also used by a handful of companies engaged in the same field. However, the execution and results again depend on the company's capabilities. Companies that fail to exploit those opportunities will typically incur higher expenses compared to the value of the missed opportunity. On the other hand, companies that succeed in taking advantage of these investment opportunities can expand their business scale in the future. Well, these companies are then considered to be able to make good use of the Investment Opportunity Set (Gumelar, 2023).

According to Downes and Goddman (2010:210), managerial ownership is the shareholders which also means in this case as owners in the company and the owner manager actively participates in decision-making in a company in question. A manager's ownership will help determine policies and decision-making. The manager in this case plays an important role because the manager carries out planning, organizing, directing, supervising and decision-making. (Fadrul, Budiyanto & Asyik, 2023: 36).

Christiawan & Tarigan (2007) in (Anisah & Hartono, 2022) stated that managerial ownership is a situation when a manager owns shares in a company and is a shareholder of the company. Managerial ownership aligns the interests of agents and principals, where management is expected to improve its performance. The higher the percentage of ownership in the company, the more likely it is that management will act in the interests of shareholders. When bad decisions are made, management will accept the consequences.

2. Theoretical Background

2.1 Signaling Theory

According to Spence (1973), signal theory focuses on the fundamental role of information in business transactions. Signal theory is rooted in pragmatic accounting theory that centers on the influence of information on changes in information user behavior. Through the journals Hahn & Kühnen (2013) and Yekini (2020), signal theory explains that managers can reduce information asymmetry by sharing voluntary information with external stakeholders. One way to reduce information asymmetry is by providing signals to stakeholders about disclosures made by a company that is expected to reduce uncertainty regarding the company's future prospects (Widyaningrum & Rohman, 2024).

2.2 Stakeholder Theory

This theory focuses on the impact arising from the relationship between the company and stakeholders. With good environmental performance and environmental cost expenditure, the trust of stakeholders, especially the community, can increase. This contributes to increasing the consumption of the company's products or services and ultimately increases the company's profits (2023:109–117).

Stakeholder theory explains that the company's performance is influenced and also affects the various stakeholder groups involved. Good relationships with stakeholders can improve the company's performance, both financially and non-financially, as well as strengthen reputation and competitiveness.

2.3 Agency Theory

Agency theory describes the relationship between the principal (shareholders) and management (agents). The relationship between agency theory and company performance can be explained that agency theory highlights the importance of supervision and monitoring of managerial activities. The owner of the company (principal) needs to ensure that the manager (agent) takes actions in accordance with the interests of the owner, and that the company's performance is continuously maintained and improved. Through effective oversight, owners can minimize agent behavior that could be detrimental to the Company's performance, emphasizing the important role of the board of directors in ensuring that management decisions are in line with the interests of shareholders. Agency theory also highlights the importance of contractual agreements between owners and agents, as well as the importance of information transparency. With a clear contract and transparency of information, the principal can ensure that the agent acts in accordance with the principal's interests and that the company's performance can be properly monitored.

2.4 Legitimacy Theory

Legitimacy theory focuses specifically on the relationship between business and society. Therefore, this can satisfy the company's strategy, especially related to self-awareness in society. This theory argues that companies should continue to ensure that they operate well by respecting the rules and not violating the norms that prevail in society. Organizational legitimacy can be seen as something that the community gives to the business world and something that is desired or sought by the business world and society (Bahri & Cahyani, 2016).

2.5 Company Performance

Company performance is a measurable result that describes the state of the company in various agreed dimensions. Evaluation of company performance is a very important activity because the results of this measurement can be used to understand the extent of the company's success in a certain period of time and thus the results of the evaluation can be used as a guideline in an effort to achieve these goals. improve the company. performance in the future to be improved or improved. (Adnyani, Endiana, & Arizona, 2020).

2.6 Environmental Social Governance (ESG)

ESG is a company's standard in its investment practices which consists of three concepts or criteria: Environmental, Social, and Governance. In other words, companies

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that apply ESG principles in their business and investment practices will also integrate and implement their company policies so that they are in line with the sustainability of these three elements (Luqyana, esqi.ai, 2024).

2.7 Investment Opportunity Set (IOS)

Investment expenditure on the Investment Opportunity Set gives a positive signal regarding future growth potential. Investment opportunities that are applied with appropriate considerations are able to improve the company's performance. Meanwhile, investment opportunities that are not used appropriately will lead to a decrease in financial performance or company losses (Muslih & Aqmalia, 2020).

2.8 Managerial Ownership

According to Bernandhi (2013), managerial ownership is the level of share ownership by the management that is actively involved in decision-making. The measurement is seen from the large proportion of shares owned by the management at the end of the year which is presented in the form of a percentage. Managerial ownership can balance the interests of shareholders with managers, because managers directly benefit from the decisions taken and managers bear the risks if there are losses arising as a consequence of wrong decision-making. Meanwhile, according to Efendi (2013), managerial ownership is the percentage of share ownership owned by the board of directors, managers and board of commissioners. The separation of share ownership and company supervision will cause a conflict of interest between shareholders and management. The conflict of interest between shareholders and management will increase in line with the management's desire to increase prosperity for themselves (Admin, 2020).

3. Methods

This research is quantitative research. Quantitative research is a type of research that produces discoveries that can be achieved using statistical procedures or other methods of quantitative (measurement). The design of this research is in the form of associative research. Associative research is research that aims to find out the relationship between two or more variables and find out their influence (Sujarweni, 2020). The types of data obtained in this study are time series data and inter-unit data (cross section) called panel data. With the company's analysis unit that is a member of the BGK Foundation in 2018-2023. The type of data in this study is secondary data obtained from the annual financial statements and annual sustainability reports that have been published through the official website of the company concerned. The dependent variable in this study is Company Performance, the independent variable in this study is Environmental Social Governance and Investment Opportunity Set and the moderation variable is Managerial Ownership.

Table 1. Measurement of Research Variables

No.	Variable	Variable Measurement	Scale
1.	Company Performance (Y) (Ramadani & Muslih, 2020)	$ROA = \frac{\text{Net Profit After Tax}}{\text{Total Assets}}$	Ratio
2.	Environmental, Social and Governance (ESG)(X1) (Soetardjo & Verawati, 2024)	BGK ESG Index	Index
3.	Investment Opportunity Set (IOS) (X2) (Sudaryo & Purnamasari, 2019)	$IOS = \frac{\text{Total Investment}}{\text{Net Sales}}$	Ratio

No.	Variable	Variable Measurement	Scale
4.	Managerial Ownership (Z) (Yusmir & Mulyani, 2024)	Managerial Ownership = Number of managerial shares Number of Outstanding Shares	Ratio

4. Results and Discussion

4.1 Data Selection Method

The model used in this study is data processing using panel data regression with three alternative methods, namely the least squared method (Common Effect Model), Fixed Effect method and Random Effect method. The first thing to do is to test which method is most appropriately used. Tests will be carried out to test the specifications of the model and the suitability of the theories with reality. Data processing is carried out using the EViews 13 software which obtained the following results:

Table 2. Model Selection Tests for Panel Regression

Test	Statistic / Chi-Sq.	df	Prob.	Model Decision
Chow Test	F = 12.876792 Chi-Sq. = 120.497174	(15,77) 15	0.0000	Fixed Effect Model
Hausman Test	Chi-Sq. = 2.181020	3	0.5357	Random Effect Model
Lagrange Multiplier Test (Breusch-Pagan)	Cross-section = 96.16962 (0.0000) Time = 0.091464 (0.7623) Both = 96.26108 (0.0000)	-	-	Random Effect Model

Source: EViews 13 Output (2025)

The panel regression model selection proceeded in three stages:

1) Chow Test indicates that the probability value of the F-statistic (0.0000 < 0.05) rejects the null hypothesis, suggesting that the Fixed Effect Model is preferable over the Common Effect Model.
2) Hausman Test shows a probability value of 0.5357 > 0.05, which fails to reject the null hypothesis, indicating that the Random Effect Model is more appropriate than the Fixed Effect Model.
3) Lagrange Multiplier Test (Breusch-Pagan) reports significant results for the Both value (0.0000 < 0.05), which further supports the Random Effect Model as the most suitable estimation method.

Accordingly, after completing the model selection tests, this study adopts the Random Effect Model (REM) as the final panel regression model.

4.2 Classical Assumption Test Results

Table 3. Results of Classical Assumption Tests

Test	Criteria / Value	Probability	Decision / Conclusion
Normality Test	Jarque-Bera = 4.767772	0.092192	Data are normally distributed (p > 0.05)
Multicollinearity	Correlation coefficients among variables < 0.90	-	No multicollinearity detected
Heteroskedasticity	ESG (p = 0.8138), IOS (p = 0.7339), ESGKM (p = 0.7517), IOSKM (p = 0.8884)	> 0.05	No heteroskedasticity detected

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Test	Criteria / Value	Probability	Decision / Conclusion
Autocorrelation	Durbin-Watson = 1.474113 (between -2 and +2)	-	No autocorrelation detected

Source: EViews 13 Output (2025)

The results of the classical assumption tests demonstrate that the regression model satisfies the required conditions. The normality test confirms that residuals are normally distributed, while the multicollinearity test shows that all correlation coefficients are below 0.90, indicating no multicollinearity. Furthermore, the heteroskedasticity test reveals that all variables have probability values greater than 0.05, suggesting homoscedasticity. Lastly, the Durbin-Watson statistic of 1.474113 indicates that the model does not suffer from autocorrelation. Thus, the regression model meets the assumptions for panel data analysis and is appropriate for further estimation.

4.3 Panel Data Regression Analysis

Table 4. Results of Data Regency Analysis Panel Random Effect Model Without Moderation Variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.072574	0.019341	3.752247	0.0003
ESG	0.042200	0.015593	2.706301	0.0081
IOS	-0.042411	0.013641	-3.108999	0.0025

Source: Output EViews 13, 2025

Based on table 4.13 The estimation model obtained from the Random Effect Model can be written as follows

$$Y= \alpha + \beta 1X1+\beta 2X2+e$$

$$Y = 0.072574 + 0.042200*X1 - 0.042411*X2 + e$$

Based on the above Regression Equation, the relationship between independent variables and dependent variables can be interpreted as follows:

1) The value of the α constant obtained positive of 0.072574 shows that it can be interpreted that if the magnitude of all independent variables, namely environmental social governance and investment opportunity set, has a value of 0, then the value of company performance in companies that are members of the BGK Foundation is 7.25%.
2) The Coefficient value of the environmental social governance (X1) variable is 0.042200 which has a positive value, which means that every 1-point increase in environmental social governance (X1) will increase the company's performance by 4.22%.
3) The value of the Coefficient of the investment opportunity set variable (X2) is (-0.042411) which has a negative value, which means that every 1-point increase in the investment opportunity set (X2) will reduce the company's performance by 4.24%.

Table 5. Results of Data Regency Analysis Panel Random Effect Model with Moderation Variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.076421	0.020523	3.723645	0.0003
ESG	0.041621	0.015670	2.656148	0.0093
IOS	-0.043709	0.014021	-3.117396	0.0024
MILES	-2.771194	4.075336	-0.679991	0.4982

Source: Output EViews 13, 2025

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Based on table 4.14, the estimation model obtained from the Random Effect Model with the moderation variable can be written as follows:

$$Y= \alpha + \beta 1X1+\beta 2X2+ \beta 2Z +e$$

$$Y = 0.076421 + 0.041621*X1 - 0.043709*X2 - 2.771194*Z + e$$

Thus, the results of the data regression panel above can be interpreted as follows:

1) The value of the α constant obtained is negative of 0.076421 indicating that it can be interpreted that if the magnitude of all independent variables, namely environmental social governance and investment opportunity set, has a value of 0, then the value of company performance in companies that are members of the BGK Foundation is 7.64%.
2) The Coefficient value of the environmental social governance (X1) variable is 0.041621 which has a positive value, which means that every 1-point increase in environmental social governance (X1) will increase the company's performance by 4.16%.
3) The value of the Coefficient of the investment opportunity set (X2) is (-0.043709) which has a negative value, which means that every 1-point increase in the investment opportunity set (X2) will reduce the company's performance by 4.37%.
4) The value of the Z coefficient is (-2.771194) which means that there is a negative relationship between managerial ownership and company performance which means that every 100% increase in managerial ownership will decrease financial performance by 2.77. Based on the table, it can be seen that the significant value for the moderation variable is 0.4982 or greater than 0.05 (0.4982 > 0.05) or insignificant.

4.4 Hypothesis Test

Table 6. Hypothesis test results

Test	Variable	Coefficient	t/F-Statistic	Prob.	Decision / Conclusion
F-Test (Simultaneous)	ESG, IOS (with KM as moderator)	-	5.488056	0.001633	Significant (Simultaneously affects firm performance)
T-Test (Partial)	ESG	0.041621	2.656148	0.0093	Significant (Positive effect on firm performance)
	IOS	-0.043709	-3.117396	0.0024	Significant (Negative effect on firm performance)
	C (Constant)	0.076421	3.723645	0.0003	-
Determination Test (Adjusted R^2)	Model Fit	R^2 = 0.151794 Adjusted R^2 = 0.124135 DW = 1.474113	-	-	Model explains 12.41% of variation in firm performance

Source: EViews 13 Output (2025)

The Hypothesis test results show that:

1) Simultaneous Effect (F-Test): ESG and IOS variables, with managerial ownership as a moderator, significantly influence firm performance ($p = 0.001633 < 0.05$).
2) Partial Effect (T-Test): ESG has a significant positive effect on firm performance ($p = 0.0093 < 0.05$), while IOS has a significant negative effect ($p = 0.0024 < 0.05$).

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3) Model Fit (Adjusted R^2): The model explains 12.41% of the variation in firm performance, with the Durbin-Watson value of 1.474113 indicating no autocorrelation problem.

4.5 Moderated Regression Analysis (MRA) Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.083829	0.022011	3.808535	0.0003
ESG	0.006271	0.018996	0.330108	0.7421
IOS	-0.038990	0.015944	-2.445353	0.0164
MILES	-2.745844	9.220388	-0.297801	0.7665
ESG*KM	44.68675	13.81427	3.234825	0.0017
IOS*KM	-13.79448	13.84567	-0.996303	0.3218

Source: Output EViews 13, 2025

Based on the moderated regression analysis (MRA) test in the table above, it can be concluded as follows:

1) The Influence of Environmental Social Governance on Company Performance is moderated by Managerial Ownership
2) The results of the moderated regression analysis (MRA) test of the panel data above show that Environmental Social Governance moderated with Managerial Ownership has a probability value < significance value (0.0017 < 0.05). Thus, it can be concluded that H3 is accepted, which means that managerial ownership is able to moderate the relationship between Environmental Social Governance and the Company's performance. In addition, the value of the interaction coefficient of 44.68675 shows that Managerial Ownership is influential in strengthening the relationship between Environmental Social Governance and company performance. In other words, the higher the level of Managerial Ownership, the greater the influence of Environmental Social Governance on company performance.
3) The Influence of Investment Opportunity Set on Company Performance is moderated by Managerial Ownership
4) The results of the data moderation regression analysis test above showed that the Investment Opportunity Set moderated with Managerial Ownership had a probability value > significance value (0.3218 > 0.05). Thus, it can be concluded that H3 was rejected, which means that managerial ownership was not able to moderate the relationship between the investment opportunity set and the Company's performance. In addition, the value of the interaction coefficient of -13.79448 indicates that managerial ownership plays a weakening influence on the relationship between the Investment Opportunity Set and the company's performance. In other words, the higher the managerial ownership, the influence of the Investment Opportunity Set on the company's performance tends to decrease.

5. Conclusion

Based on research that has been conducted on managerial ownership, moderating environmental social governance, and investment opportunity set with financial performance in companies that are members of the BGK Foundation listed on the IDX in 2018 – 2023. So, it can be concluded as follows:

1) The results of the hypothesis test show that Environmental Social Governance is empirically proven to have an influence on company performance in companies that are members of the BGK Foundation. With ESG disclosure information, both investors and other stakeholders can know the transparency of sustainability issues

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which is very useful in making strategic decisions that affect the company's performance and increase the company's profits in the future.

2) The results of the hypothesis test show that the Investment Opportunity Set is empirically proven to have an influence on the Company's performance in companies that are members of the BGK Foundation. The high value of IOS can give a positive signal to investors to invest their capital in the company. The large number of investors who invest shows that the company has a high corporate performance
3) The results of the hypothesis test show that managerial ownership is influential as a variable that moderates the relationship between Environmental Social Governance and company performance in companies that are members of the BGK Foundation. Effective managerial ownership can strengthen the influence of environmental social governance on company performance, so that the company is able to better meet the expectations and interests of stakeholders. With the influence of this moderation, companies can be more strategic in managing risks and improving their performance results for the benefit of all stakeholders involved.
4) The results of the hypothesis test show that managerial ownership has no effect as a variable that moderates the relationship between investment opportunity set and company performance in companies that are members of the BGK Foundation. Managerial ownership is not able to strengthen IOS's relationship to the company's performance because investment opportunities cannot be managed efficiently to improve the company's performance.

References

Admin, 2020. Ownership Structure (Institutional, Managerial and Public). Accessed on: November 30, 2024. https://www.kajianpustaka.com/2019/12/struktur-kepemilikan-institusional-manajerial-dan-publik.html

Adnyani, N. P., Endiana, I. D., & Arizona, E. P. (2020). The Effect of The Implementation of Good Corporate Governance And Corporate Social Responsibility On Company Performance. Charismatic Journal, 228-249

Anisah, N., & Hartono, U. (2022). The Effect of Institutional Ownership, Managerial Ownership and Foreign Ownership on the Performance of Textile and Garment Sub-Sector Companies Listed on the Indonesia Stock Exchange for the 2017-2020 Period. Journal of Management Science, 10(4), 1048-1056.

Bahri, S., & Cahyani, F. A. (2016). The Effect of Environmental Performance on Corporate Financial Performance with Corporate Social Responsibility Disclosure as a Variable I Ntervening (Empirical Study on Manufacturing Companies Listed on the IDX)). Journal of Economics of Kadiri University, 117-142.

Fadrul, Budiyanto & Asyik (2023). Financial Performance and Company Value Reviewed from the Role of Ownership Structure and Corporate Social Responsibility. Purbalingga: Eureka Media Perkasa.

Gumelar, Galih (2023). What Is Investment Opportunity Set in Investment?. Retrieved May 29, 2024. https://pluang.com/id/blog/news-analysis/investment-opportunity-set-adalah

Inawati, & Rahmawati. (2023). Environmental, Social, And Governance (ESG) Impact on Financial Performance. Journal of the Academy of Accounting, 225-241.

Luqyana, Ikbar (2024). ESG: Definition, Examples, and Its Relationship to Companies. Retrieved May 09, 2024. https://www.esgi.ai/apa-itu-esg/

Marlianita, R., & Asiah, A. N. (2021). The Influence of Corporate Social Responsibility and Intellectual Capital on Company Performance. FRIDAY, 13-22.

DOI:https://doi.org/10.61990/ijamesc.v3i4.571 e-ISSN2986-8645

Muslih, M., & Aqmalia, W. R. (2020). Financial Performance: Intellectual Capital Performance and Investment Opportunity Set. JIA (Scientific Journal of Accounting), 5(1), 61-83.

Scott, G. (2003). The Effect of the Combination of Advantages and Limitations of the Company on the Investment Opportunity Set (IOS). The Indonesian Journal of Accounting Research, 6(3).

Widyaningrum, D., & Rohman, A. (2024). The Effect of Environmental, Social, and Governance (ESG) Disclosure on Company Performance. Diponegoro Journal of Accounting, 13(2).