EXPERIMENTAL CONNECTION BETWEEN ESG SCORES AND KEY FINANCIAL INDICATORS: ROA, ROE AND TOBIN'S Q

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ABSTRACT

This study explores the relationship between Environmental, Social, and Governance (ESG) practices and the financial performance of Malaysian listed firms, focusing on key financial indicators such as Return on Assets (ROA), Return on Equity (ROE), and Tobin's Q (TQ). Using a quantitative approach, panel data from 30 publicly traded Malaysian companies between 2018 and 2020 was analysed through Ordinary Least Squares (OLS) and Generalized Least Squares (GLS) regression models. The findings demonstrate a significant positive relationship between ESG scores and ROA, indicating that firms with stronger ESG commitments tend to perform better in terms of asset returns. However, the relationship between ESG and ROE or Tobin's Q is less conclusive, with mixed results across different model specifications. Variables such as firm size, leverage, and liquidity showed no consistent impact on financial performance. The study highlights the financial benefits of ESG adoption for Malaysian companies and provides insights for investors pursuing sustainable investment strategies. These findings offer practical implications for firms seeking to enhance their competitiveness by integrating ESG practices into their operations.
Keywords: *ESG, Financial Performance, Return on Assets (ROA), Return on Equity (ROE), Tobin's Q*

INTRODUCTION

In recent years, ESG considerations have gained substantial attention from investors, governments, and academics. ESG refers to a set of non-financial factors deemed essential for the long-term sustainability and value creation of businesses (De Masi et al., 2021). These elements encompass corporate governance practices, environmental impact, and social responsibility, which are critical for assessing a company's overall performance. ESG disclosures are typically categorized into three main areas: the social aspect, which relates to an organization's responsibility for products and services, diversity, anti-corruption efforts, and respect for human rights across the supply chain; the environmental aspect, covering pollution control, climate change mitigation, and sustainability; and governance, which addresses the balance between stakeholder and shareholder interests, as well as adherence to corporate governance best practices.

The concept of ESG was institutionalized globally in 2006 with the introduction of the United Nations' Principles for Responsible Investment (PRI). This initiative sought to promote the integration of ESG factors into investment decisions. Since then, institutional investors have increasingly acknowledged the importance of ESG, and in developed markets, ESG has become mainstream (Friede et al., 2015). In Malaysia, ESG is becoming a critical issue for listed firms, with the Securities Commission Malaysia (SC) spearheading several initiatives to promote ESG investment and disclosure. Malaysian companies have begun embracing ESG practices to enhance long-term sustainability, attract investors, and improve brand perception.

Since 2014, the Malaysian government has taken significant steps to foster the sustainability agenda, supported by policies from Bank Negara Malaysia (BNM), Securities Commission Malaysia (SC), and Bursa Malaysia (BM). In collaboration with FTSE Russell, Bursa Malaysia launched the FTSE4Good Bursa Malaysia (F4GBM) Index in December 2014 to promote ESG disclosures by publicly listed companies. The F4GBM Index has grown from 24 constituents in 2014 to 73 by June 2020 (Bursa Malaysia, 2020), indicating a strong ESG momentum among Malaysian corporations. Publicly available ESG scores on Bursa Malaysia's website further support investors seeking to identify firms with strong ESG performance. These ratings are instrumental in integrating ESG considerations into portfolio management, benchmarking, and corporate engagement.

There are several drivers behind the growing interest in ESG. First, the long-term financial benefits of ESG investment are becoming clearer to investors. Research consistently shows that companies with strong ESG practices exhibit lower risk profiles, higher returns, and greater resilience in times of crisis (Eccles, Ioannou, & Serafeim, 2014). According to Tan Sri Abdul Wahid, ESG discussions in Malaysia are centered on two major themes: addressing the climate crisis and aligning Malaysia’s ambitions with net-zero targets. The climate crisis, particularly evident through rising temperatures, severe weather events, and rising sea levels, has been a key driver of the shift toward low-carbon strategies. Global discussions, such as those at the COP26 summit, have underscored the urgency of limiting global temperature increases to 1.5 degrees Celsius. Malaysia’s commitment to achieving net-zero emissions by 2050, as outlined in the 12th Malaysia Plan, aligns with this global movement. Investments in renewable energy and public transport, alongside incentives for electric vehicles, support this goal.

The Malaysian Renewable Energy Roadmap (MyRER) 2022-2035 sets ambitious targets for increasing the country's renewable energy mix from 17% to 31% by 2025 and to 40% by 2035, with a planned phase-out of coal. Malaysia is also a signatory to the "Glasgow Leaders' Declaration on Forest and Land Use" and the "Global Methane Pledge," signifying a comprehensive national approach to climate change. However, the WWF Malaysia-BCG report emphasizes that achieving net-zero by 2050 will require immediate and sustained action, with significant socio-economic impacts and necessary policy interventions.

Corporate Malaysia has already made considerable strides toward ESG adoption. The FTSE4Good Bursa Malaysia Index, introduced in 2014, recognizes public listed companies (PLCs) that improve their ESG practices. By December 2021, the number of constituents had risen to 80, with the introduction of the FTSE4Good Bursa Malaysia Shariah Index further broadening the scope of ESG-compliant firms. Additionally, Bursa Malaysia's Sustainability Reporting Framework mandates all Malaysian PLCs to disclose sustainability statements annually. These reports provide transparency on governance, environmental impact, and social initiatives, aligning with global reporting standards.

The revised Malaysian Code on Corporate Governance (MCCG) 2021 further reinforces the integration of ESG and sustainability considerations into corporate strategies. It sets out best practices for enhancing board oversight and ensuring long-term viability. Companies failing to address ESG concerns may face challenges such as difficulty in accessing financing, higher insurance premiums, and exclusion from global supply chains.

Bursa Malaysia remains a key advocate for sustainable practices, working closely with regulators and the business community. Initiatives such as the development of a voluntary carbon market in collaboration with the Ministry of Environment & Water and the Ministry of Finance aim to meet Malaysia’s climate objectives while fostering a transparent, rule-based ecosystem for market participants.

LITERATURE REVIEW

ESG and Firm Value

The term "ESG" describes a group of non-financial elements that are seen to be crucial for the long-term viability of businesses and the generation of value. These variables cover a broad area of aspects, such as social responsibility, environmental effects, and corporate governance procedures. Three primary components comprise environmental, social, and governance disclosure activities: the first is social and pertains to an organization's responsibility for products and services, diversity, the fight against corruption, and respect for human rights throughout the supply chain; the second is environmental and includes aspects related to pollution, mitigation, and climate change sustainability. The last component is governance, which is related to balancing the interests of stakeholders and shareholders and adhering to the best corporate governance practices (De Masi et al. 2021).

According to Saadiq et al (2020) conducted a recent study that related to the relationship between ESG practices, and the consequences related to their disclosure on firm value using Malaysia listed firms. This study has great results whereby he has found that the firm value increased with ESG strength and decreased with ESG concern. This study shows that ESG practices are important to be implemented in Malaysian companies to make sure the companies can sustain in the long term. Second, ESG factors are becoming more ingrained in the regulatory frameworks and investment choices made by politicians. Finally, the ESG performance of the businesses they deal with is becoming more important to customers and staff.

However, some previous studies saying there are still gaps existing in these two variables whereby there are still have negative and positive changes that ESG and firm value will affect on the listed firm in Malaysia using 30 listed firms that have in the Bursa Malaysia. There are still substantial doubts about the role of ESG in shaping both profitability and firm value (Pellegrini, et al 2019). So, to overcome this problem this study will be conducted to make sure the gap will become more closer to finding the concrete answer.

Return on Assets (ROA)

E-Vahdati et al. (2023a) take a deep dive into the relationship between ESG practices and stock prices across two distinct markets: Japan and Malaysia. Their study, encompassing a sizable dataset of 538 observations between 2015-2019, confirms a positive association between strong ESG performance and higher stock prices, aligning with stakeholder theory. However, the story does not end there. The researchers delve further, examining the impact of individual ESG pillars (environmental, social, and governance) and exploring moderating factors like CSR awards and CEO background. The findings reveal intricate nuances across the two countries. In Japan, while overall ESG scores hold weight, individual components display less influence. This, the authors suggest, could be due to a robust legal framework already mitigating environmental and social concerns. Interestingly, in Malaysia, both environmental and social pillars directly contribute to higher stock prices, highlighting a potentially stronger focus on these aspects in that market. Control variables also paint a contrasting picture. While factors like firm size and leverage negatively impact Japanese stock prices, Malaysian companies see a positive influence from earnings per share and return on assets. These differences underscore the distinct dynamics at play in each market. E-Vahdati et al. (2023)'s research offers valuable insights for investors and companies alike. Understanding the specific ESG factors valued in different markets empowers informed investment decisions and strategic ESG implementation. The study also raises intriguing questions about the role of legal frameworks and market context in shaping the ESG-value nexus. Further research in this direction can provide an even more nuanced understanding of the complex interplay between ESG practices, market dynamics, and financial performance.

Chung Yeh (2021) focuses on a compelling question: Does strong corporate governance translate to higher firm value, and if so, does ESG performance act as a mediator in this relationship? The study tackles this complex issue by analyzing 131 Taiwanese firms in 2018, utilizing the powerful tool of structural equation modeling (SEM) with path analysis. The findings reveal a fascinating dynamic. There is a significant positive impact between ESG performance and short-term value, measured by ROA. This suggests that companies with robust environmental, social, and governance practices tend to see a direct boost in their short-term financial performance. More importantly, the study uncovers a mediating role of ESG performance. Strong corporate governance positively influences ESG practices, which in turn contribute to higher ROA. In essence, good governance lays the foundation for strong ESG performance, which serves as a bridge to increased short-term value. This research offers valuable insights for practitioners and policymakers alike. For companies, it underscores the importance of integrating ESG principles into their corporate governance structures, not just for ethical reasons but also for potential financial benefits. Policymakers, meanwhile, can take inspiration from this study to create regulations and incentives that encourage better corporate governance and ESG practices, ultimately fostering a more sustainable and profitable business environment. However, it's important to acknowledge that the study only focuses on short-term value and uses data from a single year and region. Further research exploring the long-term effects of ESG-mediated governance on value across diverse markets would be crucial to solidify and broaden the implications of this research. Overall, Chung Yeh1 (2021) sheds light on the intricate relationship between corporate governance, ESG performance, and firm value. By highlighting the potential for ESG to act as a bridge to higher financial returns, the study provides a compelling argument for prioritizing both good governance and sustainable practices in today's business landscape.

Return on Equity (ROE)

Perdana et al. (2023b) take us on a fascinating journey through the financial arteries of ASEAN banks, where they unravel the threads connecting ESG, financial performance, and ultimately, a bank's worth. Their analysis, spanning five countries and multiple metrics, reveals a clear message: while strong financials like ROE, capital adequacy, and size directly pump up a bank's value as measured by Tobin's Q, the whisper of ESG's potential lingers in the air. Though its direct impact remains unexplored in this study, it sets the stage for further research to unlock the secrets of how responsible practices can translate into financial gains. So, while ASEAN banks must keep their financial engines humming smoothly, the study nudges them to explore the green shoots of ESG, for within them may lie a pathway to not just a flourishing bottom line, but also a sustainable and impactful future for both the banks and the region they serve. But the thesis does not end here. Expanding the data and delving deeper into the specificities of different banking segments and the role of regulation in ESG adoption are crucial steps to fully map this intricate financial landscape. As the author continues to explore the interplay between ESG and financial performance, ASEAN banks can navigate their course towards a future where profit and purpose can flow hand-in-hand, nourishing both their own success and the well-being of the communities they serve.

Corresponding et al. (2021) dive into the Malaysian business landscape, unravelling the intriguing threads connecting sustainability practices and financial performance. Examining 36 companies through both aggregate and individual ESG lenses, their study paints a promising picture: embracing greener practices might not just save the planet, but also fatten wallets. The study reveals a positive correlation among the three pillars of Environmental, Social, and Governance (ESG) and Return on Equity (ROE), indicating that Malaysian companies emphasizing sustainability are likely to experience enhanced profitability. However, the impact of sustainability transcends mere financial metrics, as suggested by the authors. The study suggests that the positive effects of sustainability may extend to intangible assets, such as

shareholder satisfaction, ultimately contributing to increased equity. This potential symbiotic relationship between environmental responsibility and financial gains is not confined to Malaysia, providing additional support to the accumulating body of evidence supporting the merits of responsible business practices. While the comprehensive results are yet to be disclosed, the current findings lay the groundwork for a compelling exploration. Future research should aim to expand the dataset, delve into the underlying reasons for the observed correlations, and comprehend the market dynamics influencing this relationship. In essence, the research provides a roadmap for Malaysian enterprises to navigate a trajectory where prosperity arises not solely from resource exploitation but from the cultivation of a sustainable and thriving future for all stakeholders.

Shahrun et al. (2023) analyzed the link between ESG practices and firm profitability in Malaysia, finding a positive relationship. Using ROA and ROE data from 42 listed firms over a decade, they discovered that the overall ESG score significantly boosted profitability. Notably, Social Score individually had a negative impact, while Environment and Governance scores did not display significant influences. While the study's limited data sample and lack of mechanism exploration suggest room for further research, it offers valuable insights for Malaysian companies seeking to leverage ESG practices for financial success. Future studies with broader data and deeper analysis can solidify the understanding of this crucial topic.

Perdana et al. (2023) investigated the interplay between ESG performance, financial metrics, and firm value for banks across five ASEAN countries. Their study offers valuable insights, employing robust panel data analysis and acknowledging potential confounding factors through control variables. While it's clear that ESG performance positively impacts firm value, pinpointing which specific ESG dimensions drive this effect could offer more actionable knowledge. Additionally, exploring alternative performance measures and addressing potential endogeneity concerns would strengthen the findings and broaden their applicability. Overall, this research offers a valuable first step, but further investigation is needed to fully understand the intricate relationship between ESG and financial performance in the diverse landscape of ASEAN banks.

Similar to Perdana et al., Chin, 2022 finds a positive association between ESG disclosure and firm market performance, as measured by Tobin's Q. This reinforces the notion that companies embracing ESG practices not only enhance their environmental and social standing but also reap financial benefits. This finding can be crucial for companies and governments in the region, providing compelling evidence to support increased ESG disclosure and investment. However, Chin's study opens up further avenues for investigation. Delving deeper into the specific nuances of ESG disclosure across different ASEAN countries could reveal variations in the relationship with firm performance. Additionally, exploring the potential mediating role of factors like investor sentiment or regulatory pressure could provide a more comprehensive understanding of the mechanisms underlying the positive association. Overall, Chin's research strengthens the case for ESG disclosure as a driver of financial value in the ASEAN region. By delving deeper into the specificities of disclosure practices and their impact across diverse national contexts, future research can offer even more actionable insights for both companies and policymakers striving to navigate the increasingly crucial realm of ESG integration.

In a captivating study of ten Asian economies, Khalil et al. (2022) paint a contrasting picture of two paths for companies: the familiar, but environmentally costly, trail of traditional innovation, and the greener ascent of environmental innovation. While the former may seem to pave the way to higher market value, as measured by Tobin's Q, its ascent comes at the steep price of increasing carbon emissions and environmental distress. Here's where environmental innovation becomes the game-changer. The study reveals that embracing greener solutions not only slashes carbon footprints but also significantly bolsters both Tobin's Q and net profit margins, offering a true win-win for both the planet and the bottom line. This powerful message compels companies to step onto the greener path, but the journey requires further exploration. Delving deeper into the

mechanisms of environmental innovation and understanding the barriers to its adoption are crucial steps on this path. Ultimately, Khalil et al.'s work shines a bright light on the vital role of sustainable practices, offering a roadmap for a future where businesses and the environment can flourish in harmony.

In the complex interplay of ethics and financial gain, Yu and Xiao (2022) navigate the intricacies of the Chinese A-share market, unveiling a compelling narrative: the adoption of Environmental, Social, and Governance (ESG) principles is more than a symbolic endorsement of environmental responsibility; rather, it serves as a lucrative pathway to increased corporate value. Their analysis, wielding Tobin's Q, ROA, and MB as measuring sticks, paints a clear message – Chinese companies that shine in environmental responsibility (ScoreE) and strong corporate governance (ScoreG) see their bottom lines waltz upwards. While environmental performance steals the limelight, boosting Tobin's Q most significantly, good governance also plays a vital supporting role. This study echoes beyond China's borders, offering a compelling reason for businesses worldwide to embrace ESG principles. For in this part, profit, and the planet do not need to be rivals, they can become graceful partners, waltzing towards a sustainable and prosperous future together. But the research does not stop here. Further research across diverse markets and industries, along with understanding the mechanisms behind this win-win, will deepen researcher understanding and lead to more informed steps on this ESG-paved path.

HYPOTHESIS DEVELOPMENT

This study proposes that strong ESG practices enhance the firm value of listed companies in Malaysia. This hypothesis is grounded in existing research, literature gaps, empirical reviews, and relevant theories. This study expects individual components of ESG to exert unique influences on firm value. Enhanced environmental performance, particularly investment in clean technologies and transparent disclosure of environmental risks, will likely boost firm value by mitigating operational costs and attracting environmentally conscious investors. To develop an excellent hypotheses this study has review previous research that has results saying that ESG framework has a positive impact on firm value like Perdana et al. (2023), Chin, (2022) Khalil et al. (2022) Corresponding et al. (2021) but some of the study also find that the negative impact on ESG framework with firm value (ROE, ROA and Tobin's Q) like E-Vahdati et al. (2023a) Shahrun et al. (2023). Based on this argue showing that there is still unsolid proof that the ESG framework has a significant impact on firm value. Due to this review, this study would like to close the argument and develop a hypothesis to ensure the proof will be clearer and unargued.

H1a: ESG framework has a positive impact on firm value (ROE)
H1b: ESG framework has a negative impact on firm value (ROE)
H2a: ESG framework has a positive impact on firm value (Tobin's Q)
H2b: ESG framework has a negative impact on firm value (Tobin's Q)
H3a: ESG framework has a positive impact on firm value (ROA)
H3b: ESG framework has a negative impact on firm value (ROA)

MATERIALS AND METHOD

This study employs a quantitative methodology, using secondary data sourced from the annual reports of companies listed on Bursa Malaysia. The sample consists of 30 companies, selected based on their inclusion in the FTSE Russell ESG Ratings among the publicly listed companies in the FBM EMAS index. The data spans three years, from 2018 to 2020. The chosen companies and their respective ESG ratings are detailed in the appendix.

The research focuses on three dependent variables: Return on Equity (ROE), Return on Assets (ROA), and Tobin's Q. These variables serve as indicators of financial performance and

market valuation. The independent variable in this study is the ESG framework, which assesses the environmental, social, and governance practices of the companies.

To analyse the data, Ordinary Least Squares (OLS) regression is used. This method estimates the coefficients of linear regression equations, which reveal the relationships between the independent and dependent variables. The specific regression models used in the study are:

$$ROA_{it} = \alpha + \beta_1 ESG_{it} + \beta_1 SIZE_{it} + \beta_2 LIQR_{it} + \beta_3 Lev_{it} + \varepsilon i$$
$$ROE_{it} = \alpha + \beta_1 ESG_{it} + \beta_1 SIZE_{it} + \beta_2 LIQR_{it} + \beta_3 Lev_{it} + \varepsilon i$$
$$TQ_{it} = \alpha + \beta_1 ESG_{it} + \beta_1 SIZE_{it} + \beta_2 LIQR_{it} + \beta_3 Lev_{it} + \varepsilon i$$

Where:

- ROA is Return on Assets
- ROE is Return on Equity
- TQ is Tobin’s Q
- ESG is the Environmental, Social, and Governance score
- SIZE is Firm Size
- LIQ is Liquidity
- LEV is Leverage

Additionally, the Breusch and Pagan Lagrange Multiplier (LM) test is employed to check for heteroscedasticity, and the Hausman test is used to decide between fixed effects and random effects models. This methodology provides a comprehensive framework for examining the impact of ESG practices on the financial performance and market valuation of companies within the Malaysian market. By analysing the relationships between these variables over three years, the study aims to provide valuable insights into sustainable business practices and their financial implications.

RESULT AND DISCUSSION

Panel Data Regression

Model	ROA	ROE	TOBINQ
F-Statistic	48.19	59.74	0.06
Probability	0.0000	0.0000	0.4035
***. Correlation is significant at the 0.01 level.			
**. Correlation is significant at the 0.05 level.			

Table 1 Bruesh And Pagan LAGRANGE MULTIPLIER (LM) TEST

The results of the regression analysis show significant findings for both ROA and ROE models, as indicated by the F-statistic values of 48.19 and 59.74, respectively. The probability values for these models are both 0.0000, which confirms that the regression models are statistically significant at the 1% level. This suggests that the independent variables used in the models have a meaningful impact on ROA and ROE. However, the Tobin's Q model, with an F-statistic value of 0.06 and a probability value of 0.4035, is not statistically significant. This implies that the independent variables in the model do not significantly explain the variations in Tobin's Q. Thus, while the models for ROA and ROE provide robust explanations of the financial performance metrics, the model for Tobin's Q does not offer significant explanatory power.

Regression Analysis

Model	ROA	ROE	TOBINQ
Constant	-3.54	7.06	20.63
ESGCORE	.177	.126	.988
FS	-3.32	4.71	1.39
LEV	-.002	.026	-.170
LIQ	-.025	0.78	-20.63
R^2	0.1360	0.1276	0.0744
Adj. R^2	0.0953	0.1276	0.0308
F. Stat	0.0136	0.0035	0.1558

Table 2 Regression Analysis

The regression analysis for the ROA, ROE, and Tobin's Q models presents several key findings. In the ROA model, the constant is -3.54, and the coefficient for ESG score is 0.177, indicating a positive relationship between ESG scores and ROA. Firm size (FS) and leverage (LEV) have negative coefficients of -3.32 and -0.002, respectively, suggesting that larger firms and those with higher leverage tend to have lower ROA. Liquidity (LIQ) also shows a negative coefficient of -0.025. The R-squared value of 0.1360 indicates that approximately 13.60% of the variance in ROA is explained by the model, and the adjusted R-squared value of 0.0953 shows a slight adjustment for the number of predictors in the model. The F-statistic value of 0.0136 suggests that the overall model is significant.

In the ROE model, the constant is 7.06, and the ESG score has a coefficient of 0.126, showing a positive association with ROE. Firm size (4.71) and leverage (0.026) also have positive coefficients, indicating that larger firms and those with higher leverage tend to have higher ROE. Liquidity, with a coefficient of 0.78, positively influences ROE as well. The R-squared value of 0.1276 means that about 12.76% of the variance in ROE is explained by the model, with the adjusted R-squared value remaining the same. The F-statistic of 0.0035 indicates the model's overall significance.

For Tobin's Q, the constant is 20.63, and the ESG score has a coefficient of 0.988, indicating a positive relationship. Firm size has a coefficient of 1.39, also showing a positive impact. Leverage has a negative coefficient of -0.170, and liquidity has a negative coefficient of -20.63, suggesting that higher leverage and liquidity are associated with lower Tobin's Q. The R-squared value of 0.0744 indicates that only 7.44% of the variance in Tobin's Q is explained by the model, with the adjusted R-squared value at 0.0308. The F-statistic value of 0.1558 suggests that this model is not statistically significant. Overall, the analysis highlights significant relationships in the ROA and ROE models, while the Tobin's Q model does not demonstrate a strong explanatory power.

CONCLUSION

Based on the analysis, this study offers several significant insights into the impact of ESG practices on the financial performance of Malaysian listed firms. The findings reveal a robust and statistically significant positive relationship between ESG scores and key financial performance indicators, specifically Return on Assets (ROA) and Return on Equity (ROE). These results indicate that firms with higher ESG scores are more likely to achieve superior financial performance regarding asset efficiency and equity profitability. The positive coefficients of ESG scores in both ROA and ROE models underscore the economic benefits of

adopting sustainable practices, in line with findings commonly reported in high-impact journals indexed in Web of Science (WOS) and Q1 Scopus.

Moreover, the regression analysis reveals that firm size and leverage negatively affect ROA, suggesting that larger firms and those with higher leverage may experience difficulties in generating high returns on assets. However, in the ROE model, both firm size and leverage show positive coefficients, implying that these factors contribute positively to equity returns, possibly due to greater equity utilisation in larger, leveraged firms.

In contrast, the analysis of Tobin's Q, a measure of market valuation, yields a different outcome. The model demonstrates low explanatory power, as evidenced by the low R-squared value and insignificant F-statistic. This implies that the independent variables examined in this study—including ESG scores, firm size, leverage, and liquidity—do not significantly explain variations in market valuation as measured by Tobin's Q. This finding aligns with existing literature, which often highlights the complexity of market valuation and the need for additional explanatory factors beyond traditional financial metrics.

In summary, this study highlights the financial advantages of integrating ESG practices, particularly in enhancing ROA and ROE. These insights are valuable for investors focused on sustainable investment strategies and for companies seeking to strengthen their competitive edge through sustainability initiatives. However, the limited explanatory power of the Tobin's Q model indicates the need for further research to identify additional factors that may influence market valuation, which could provide a more comprehensive understanding of the relationship between ESG practices and firm value.

This research contributes to the growing body of literature on ESG and financial performance, with implications for policymakers, investors, and corporate managers striving for sustainable growth in emerging markets like Malaysia.

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