

The Effect of Environmental, Social and Governance Implementation on the Performance of Malaysian Listed Property Companies

*Muhammad Yusaimi Abdul Hamid, Rohaya Abdul Jalil and Nurul Atiqah Rabuan

Published: 31 December 2025

To cite this article: Muhammad Yusaimi Abdul Hamid, Rohaya Abdul Jalil and Nurul Atiqah Rabuan (2025). The effect of environmental, social and governance implementation on the performance of Malaysian listed property companies. *Journal of Construction in Developing Countries*, 30(Supp. 2): 1–13. <https://doi.org/10.21315/jcdc.2025.30.s2.1>

To link to this article: <https://doi.org/10.21315/jcdc.2025.30.s2.1>

Abstract: Since its formal introduction in 2004, the environmental, social and governance (ESG) criteria have evolved into critical non-financial performance metrics in corporate governance and investment decision-making. Although the initial adoption was slow, ESG has gained substantial momentum as investors increasingly pursue responsible investment strategies. Corporations are now under greater pressure to integrate ESG principles into their business operations, especially in sectors with significant environmental and social impacts, such as real estate. In Malaysia, regulatory bodies like Bursa Malaysia have mandated ESG disclosures for all listed companies. Despite this, the level of ESG compliance within the property sector remains relatively low. This shortfall is primarily due to limited awareness, inadequate technical understanding and a lack of integration of ESG frameworks among key industry stakeholders. These challenges can hinder firms from meeting ESG expectations, leading to reputational risks and potential impacts on financial performance. This study investigates the relationship between ESG compliance and financial performance among 60 Malaysian listed property companies from 2019 to 2022. Using Pearson correlation analysis, the study evaluates the association between ESG indicators and key financial metrics – return on assets (ROA), return on equity (ROE), net profit margin (NPM), debt-to-equity ratio (D/E) and current ratio (CR). The findings reveal a positive correlation between ESG compliance and profitability indicators, suggesting that companies with stronger ESG practices tend to perform better financially. These results offer valuable insights for policymakers, investors and property developers in aligning ESG strategies with corporate financial goals. Moreover, the findings underscore the importance of strengthening ESG literacy and implementation in Malaysia's property sector to enhance long-term sustainability and competitive advantage.

Keywords: ESG, Listed property companies, Malaysia, Sustainability reporting, Financial indicators

INTRODUCTION

Sustainability has recently emerged as a non-financial metric used to evaluate a company's success. This shift is due to the firm's involvement in environmental, social and governance (ESG) initiatives, as companies worldwide are starting to integrate ESG reporting into their objectives and key performance indicators. This allows them to evaluate performance, manage

Department of Real Estate, Faculty of Built Environment and Surveying, Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor, MALAYSIA

*Corresponding author: yusaimi@utm.my

change towards more sustainable processes and align with stakeholder values. In line with the Sustainable Development Goals (SDGs), ESG is a set of principles that businesses use to build a sustainable future.

Corporate social responsibility (CSR) is built on three pillars: environment, social and governance (Alkaraan et al., 2022). Profit-driven business practices frequently harm environmental preservation (Kramer and Pfitzer, 2022). As concerns about sustainability grow, investors are becoming more interested in organisations' involvement in ESG. Socially responsible investors typically evaluate environmental, social and governance aspects alongside long-term company projections and market stability when making investment decisions (Li et al., 2021). Most companies are aware that ESG practices not only add value to their brand but also ensure the sustainability of their supply chain, leading to customer satisfaction. Furthermore, a commitment to ESG may help a firm's business operations remain competitive through differentiated products (Trisnowati et al., 2022). There is a relationship between the supply chain and ESG, where supply chain operations can impact ESG performance, while ESG-related issues have an influence on supply chain operations (Dai and Tang, 2022a). Sustainable finance is not the only issue for ESG, but it may also have a direct impact on business activities, how the business operates and it may even include how the business manages their supply chain (Dai and Tang, 2022a). According to an article by Global Real Estate Sustainability Benchmark (2022), any ESG-related issue can arise in the supply chain. Therefore, it is important to ensure that the organisation makes good efforts to actively manage governance, risks are managed well and identify and manage issues that arise in the supply chain.

Financial performance is critical to a company's survival in the competitive market. Non-financial success, as measured by ESG standards, is equally important. Several studies have been undertaken on the ESG activities of organisations listed in various markets, examining their impact on financial performance. The available research focused on a wide range of publicly traded enterprises and various performance indicators, including economic value-added, market-based financial performance and accounting-based financial performance. For example, Lee and Isa (2023) discovered a positive relationship between ESG practices and the financial success of Shariah-compliant enterprises. Thomas et al. (2021) found a positive and significant relationship between ESG and financial performance, as measured by return on assets (ROA). However, no comprehensive study has focused specifically on property companies listed on Bursa Malaysia. As a result, the purpose of this research is to investigate the relationship between ESG compliance and financial performance using correlation coefficient and regression analyses based on data available in the Refinitiv database and annual reports of companies, specifically financial statements.

LITERATURE REVIEW

Sustainability reporting is designed to provide a company's transparency on its contribution to sustainable development, as well as accountability to its stakeholders. The disclosure of meaningful, balanced and comparable information in the sustainability statement must be made in accordance with Bursa Malaysia's sustainability reporting guidelines (Thomas et al., 2020). Corporate sustainability reporting tools (SRTs) are sometimes referred to as non-financial reporting, triple bottom line (TBL), ESG reporting, sustainable development reporting and CSR reporting (Siew, 2015). In recent years, various governments around the world, including Malaysia, have issued official orders to disclose all information relating to sustainability and CSR. Bursa Malaysia issued a sustainability amendment in 2015 that requires listed companies to disclose narrative statements of risk management and material economic, environmental and social (ESS) opportunities in annual reports, replacing statements on CSR. These changes are made to the Main Market Listing (Main LR) and ACE Market Listing Requirements (ACE LR) addressing the sustainability statement that must be included in the annual report, which will be utilised as a means of communication between the company and investors. Currently, ESG reporting is required as part of the Bursa Malaysia listing requirements. Bursa Malaysia also issued a framework for CSR for public-listed corporations to follow as reporting guidelines.

According to Deshayes' (2012) research, real estate, notably construction activity, accounts for up to 37% of energy consumption, 40% of trash and 40% of CO₂ emissions. This demonstrates how real estate has contributed to the degradation of natural environments. As a result, protecting biodiversity from all hazards has become a priority for the real estate business, with development operations in each area emphasising the importance of preserving biodiversity and ensuring its long-term viability. The real estate industry must disclose the total amount of effluents released during the reporting period.

The real estate business is involved in supply chain management (SCM) between suppliers, which includes processes, vendors, information and resources, employee coordination, product delivery to end users and so on. This supply chain will become more sophisticated and vast if the real estate business operates on a worldwide scale. According to Oloke, Akindele and Olagunju (2021), real estate surveying and valuation firms lack sufficient preparation and are unfit to carry out SCM for all real estate transactions and project implementations. They discovered that real estate valuers have a low level of expertise of SCM (Oloke, Akindele and Olagunju 2021). The Principles for Responsible Investment (2017) map depicts the environmental impact of the supply chain across multiple sectors, as analysed by environmental research firms. According to the study's findings, the real estate sector has an impact on the supply chain ranging from 86% to 90%.

According to Dai and Tang (2022b), integrating supply chain procedures and operations into ESG is critical since it can be utilised as a step towards understanding the performance of each ESG pillar along the firm's supply chain. Real estate companies must disclose the percentage of suppliers that have been examined and screened for environmental and social consequences in their sustainability reports. Because ESG has become a sensitive topic for investors, customers and end users, it is critical to report so that stakeholders understand that the company's suppliers are equally accountable for ensuring sustainability in accordance with the ESG concept. To improve incentive schemes and contracts between supplier chains, it is not only required to consider operational and economic performance, but also the performance aspect of ESG compliance (Klimkiewicz, 2017). According to Dai and Tang (2022a), organisations are more likely to redirect their supply chain operations towards a more ecologically sustainable and socially responsible future with more transparent supply chains, ESG reporting and rating methodologies.

According to a study conducted by Khairulanuwar and Chuweni (2021), Malaysian Real Estate Investment Trust rated 7th in the Asia Pacific real estate investment trusts (REITs) market and 27th overall. Throughout 2022, M-REIT industry data reveal that earnings are unchanged, with earnings expected to rise to 2.2% yearly. The performance of M-REITs over the last 3 years has plummeted by 23% per year, while revenue has reduced by 26%, implying that the M-REITs industry's performance has declined in terms of overall sales and profits. Throughout the COVID-19 outbreak, the real estate sector has been severely impacted because people have limited mobility and are not permitted to go out as they like and must work from home; others have even been laid off and lost their employment. This makes property transactions extremely unsatisfactory.

There have been numerous studies on ESG in Malaysia, including one on Malaysian public listed companies, however, there has been little research on specific industries for Malaysian listed real estate companies. The lack of research on ESG implementation in listed real estate companies makes it difficult for investors and shareholders to become aware of this issue. In accordance with Mohammad and Wasiuzzaman (2021), there is still a lack of disclosure about ESG in Malaysia because it is a new component in the concept of sustainability; thus, more ESG research is needed to generate ideas and better understand how ESG disclosure should be made for specific industries. Future studies should focus more on the three ESG pillars (Mohammad and Wasiuzzaman, 2021). This is due to the need of better understanding the impact of these pillars on business performance and how competitive advantages can influence this relationship.

As ESG issues have become a major focus in the real estate industry it is necessary to study and do more research on the implementation of ESG in listed property companies. It is important to study more regarding the

implementation of ESG to ensure that Malaysian listed property companies can provide good investment and responsible investment because Malaysia has attracted the attention of investors not only in the country but also foreign investors. In addition, this research can also help companies to pay more attention to important ESG components and can have a direct impact on financial performance and the performance of listed property companies. The company can give a deeper focus on the components.

Based on the study done by Ismail et al. (2022), investors will use ESG data disclosure as an indicator to evaluate the company’s financial performance in the future and it is also used by stakeholders to monitor and see the company’s performance. Most previous studies show that there is a link between ESG and financial performance. To make sure the company’s performance is good, they must take ESG seriously because it plays an important role for investment. Based on existing research or studies that have been conducted, they use various types of metrics or indicators to measure financial performance and company performance. Besides, Whelan et al. (2021) have conducted a meta-analysis that showed the results of more than 1,000 papers that focused on the topic of ESG and financial performance. Based on the analysis, around 58% showed a positive link, 21% mixed results, 13% focused on return on equity (ROE), ROA or share price showed a neutral relationship and another 8% are negative. Although most of the results are positive, there are still disagreements on this issue. A company’s financial performance may have a positive relationship with its level of ESG compliance or implementation; therefore, further research is needed to examine the financial performance of listed property companies. To further illustrate the mixed findings in previous research, Table 1 summarises several empirical studies examining the relationship between ESG and key financial performance indicators such as NPM, ROE and ROA.

Table 1. Previous research on ESG

Variables Used	Findings	Source
NPM	Net profit margin has a significant positive relationship with the ESG score and the three components used, namely, receivable turnover ratio, inventory turnover and earnings per share. Any reduction in the ESG score will make the NPM increase.	Wu (2022)
ROE	The ESG sub-components such as environmental, CSR and corporate governance disclosure are negatively associated with ROE.	Alareeni and Hamdan (2020)
	Environmental disclosure can positively affect the ROE while corporate governance and CSR disclosure can have a negative effect on ROE.	Buallay (2019)

(Continued on next page)

Table 1 Continued

Variables Used	Findings	Source
ROA	There is a positive effect between the financial performance of firm and ESG performance (ROA).	Platnari (2023)
	The ESG sub-component such as environmental and CSR disclosure have a negative correlation with ROA. Meanwhile, the corporate governance component shows positive results related to ROA.	Alareeni and Hamdan (2020)
	Environmental disclosure can have a positive effect on ROA while the disclosure of CSR and corporate governance can negatively affect ROA.	Buallay (2019)

The topic of ESG has attracted the attention of many countries to better comply with ESG requirements so that sustainability can be maintained. Furthermore, ESG has become a concern for businesses, therefore, a more in-depth study of this topic in a specific field such as the real estate industry can help to provide disclosure and understanding of issues that may arise from ESG compliance. A study conducted by Tarmuji, Maelah and Tarmuji (2016) has found that companies in Malaysia and Singapore are still low in complying with ESG where the average ESG score is between 36.31% and 53.03%, which is still considered low. Therefore, there is a need to study the effect of ESG on companies. The study conducted can give space to more investors and foreign investment to carry out investments that are responsible for the concept of sustainability in considering the three pillars of environmental (E), social (S) and governance (G). It can also avoid risks that may occur and mitigate those risks.

METHODOLOGY

This study used annual panel data spanning from year 2019 to 2022 gathered from 209 property companies listed in the Bursa Malaysia. The number of listed property companies used as a sample size for this study was subject to the availability of ESG data. Some of the listed property companies did not disclose their ESG practice in any official publication during the study period. There are 13 sectorial indexes with 757 companies listed on Bursa Malaysia. In the property index, there are 209 listed property companies consisting of construction, plantation, property and real estate investment trusts.

The financial data of the companies involved in this study were gathered from the companies' annual report obtained from the companies' official website. Since the company's sustainability disclosure may be reported in the company's annual report or in a separate sustainability report, the sustainability data have been gathered from two main sources: company's

sustainability disclosure as the primary source and proprietary ESG data from financial databases, specifically from the Refinitive Eikon terminal. In addition, financial indicators used include ROA, ROE, net profit margin (NPM), debt-to-equity ratio (D/E) and current ratio (CR). These were chosen as they represent profitability, leverage and liquidity (Buallay, 2019; Alareeni and Hamdan, 2020).

This study involved four sectors, namely property, plantation, construction and REIT. These four sectors have a common thread which is associated with the real estate industry. Therefore, these companies have been used as a target population. Listed property companies under the main market for all counters is 209 of which 99 are property companies, 41 plantation companies, 50 construction companies and 19 REIT companies. However, not all 209 companies were included in the study. This is due to several factors such as limited resources. This study was conducted by taking data from the annual report for financial performance from 2015 to 2022 and there are companies that do not have a complete annual report for all the required years as well as information related to ESG required from the sustainability report. Therefore, companies that did not have the required complete data were excluded. Apart from that, due to the time limitation that required the researchers to collect and analyse the data within a specific time frame, they could not gather all the data from the available population. The total sample size as calculated in “Methodology” section, was 68 companies. However, only 60 companies were taken as sample in data collection. Therefore, from the total population of 209 companies listed in Bursa Malaysia under Main Market, only data of 60 companies were taken for this study. Out of 60 companies, 22 were property companies, 12 were plantation companies, 17 were construction companies and 9 were REIT companies.

Correlation coefficient is often used to measure the existence of a linear relationship between two variables. There are three common types of correlation coefficient used in studies, namely Pearson’s product coefficient, Spearman’s rank coefficient and Kendall’s coefficient (Hauke and Kossowski, 2011). The selection of the type of correlation coefficient depends on the type of variable being studied and analysed using Statistical Package for the Social Sciences (SPSS). Table 2 indicates correlation coefficient value.

Table 2. The indication of correlation coefficient value

R Value	Meaning
-1	Perfectly negative linear relationship
0	No relationship
+1	Perfectly positive linear relationship

RESULTS AND DISCUSSION

Table 3 shows the Pearson correlation coefficients for the 2015 to 2018 pre-ESG period. The correlation has been done by separating the E, S and G to see the correlation each variable had towards other financial performance variables, namely, NPM, D/E, ROE, ROA and CR. Correlation values for variables that almost reach 1 or -1 mean that there is a strong relationship between the variables, but the effect of positive and negative correlation is different. Meanwhile, a value of 0 means there is no relationship between the variables.

Table 3. Pearson correlation coefficient for years 2015 until 2018 (before ESG implementation)

Pearson Correlation								
	ENV	SOC	GOV	NPM	DTE	ROE	ROA	CR
ENV	1							
SOC	0.737**	1						
GOV	0.548*	0.556**	1					
NPM	−0.044	0.006	0.004	1				
DTE	0.005	−0.006	−0.077	−0.027	1			
ROE	−0.132*	−0.047	−0.156*	0.487**	−0.207**	1		
ROA	−0.094	−0.03	−0.131*	0.558**	−0.286**	0.948**	1	
CR	−0.113	−0.181**	−0.047	0.117	−0.079	−0.003	0.057	1

Notes: *Correlation is significant at the 0.05 level (2-tailed); **Correlation is significant at the 0.01 level (2-tailed).

Based on Table 3, there is a strong correlation between the independent variables environment (ENV), social (SOC) and governance (GOV). Even so, the value for the correlation of each independent variable is below 0.8, therefore, it can be avoided from multicollinearity. On the other hand, NPM, ROE, ROA and CR have a negative correlation with the ENV variable with values of -0.044, -0.132, -0.940 and -0.113, respectively. This negative relationship can have an inverse effect on each other. For D/E, the correlation with ENV is very low which is 0.005, which shows almost the absence of any relationship. Although NPM has a negative correlation with ENV, for SOC and GOV it shows a positive value of 0.006 and 0.004, respectively. Both values are very little and show the absence of a relationship between these variables. Next is D/E which has a positive correlation with ENV but negative correlation with SOC and GOV (-0.006 and -0.077, respectively). Just like the value of other variables, D/E also shows a very weak correlation but if compared with the value of -0.077 it shows a slightly higher value compared to -0.006. Next, ROE has the same

relationship with all the independent variables, namely, negative correlation, which is -0.047 for SOC and -0.156 for GOV. These results show that ROE is negatively correlated with any of these independent variables. Same goes to ROA which has the same result that is negative correlation where ROA and SOC are -0.300 , while with GOV it is -0.131 . For the last variable, the CR also shows a negative correlation with SOC and GOV with correlation values of -0.181 and -0.047 , respectively.

Table 4 presents the results for the 2019 to 2022 ESG-compliance period. The results of the Pearson correlation coefficient analysis conducted showed that ENV, SOC and GOV have a higher correlation compared to the financial performance variable. This is because the ENV, SOC and GOV variables are a data set that reflects the company's compliance and are related to each other. Although each independent variable has a strong relationship with each other, the value of the correlation level is less than 0.8, which is the rule of thumb for multicollinearity. Thus, it can be said that there is no issue related to multicollinearity that exists among the independent variables. Therefore, it simplifies the process of identifying the effect of each independent variable on the dependent variable.

Table 4. Pearson correlation coefficient for years 2019 until 2022 (during ESG implementation)

Pearson Correlation								
	ENV	SOC	GOV	NPM	DTE	ROE	ROA	CR
ENV	1							
SOC	0.694**	1						
GOV	0.430**	0.405**	1					
NPM	0.205**	0.214**	0.093	1				
DTE	−0.110	−0.169**	−0.045	−0.100	1			
ROE	0.212**	0.194**	0.121	0.552**	− 0.536**	1		
ROA	0.260**	0.145*	0.080	0.695**	−0.062	0.281**	1	
CR	−0.091	−0.157*	−0.169**	−0.067	− 0.173**	0.016	−0.029	1

Notes: *Correlation is significant at the 0.05 level (2-tailed); **Correlation is significant at the 0.01 level (2-tailed).

For financial indicators, the relationship between the ENV variable and NPM, ROE and ROA show a slight correlation with 0.205, 0.212 and 0.260, respectively. A correlation between these three variance values indicates that there is a positive and significant relationship between this financial performance variable and the environmental variable. This positive relationship indicates that an increase in environmental performance is associated with higher NPM, ROE and ROA. The variables D/E and CR show a negative relationship with

ENV, where D/E has a value of -0.110 and CR is -0.091 . Contrary to positive correlation, an increase or decrease in the value of negative correlation between two variables will have the opposite effect on the other variable. If the value of ENV increases, then the value of D/E and CR will decrease. Correlation between SOC and GOV with the variables NPM, D/E, ROE, ROA and CR also gave the same results, namely negative correlation for D/E and CR whereas positive correlation for NPM, ROE and ROA.

The analysis that has been made using the Pearson correlation coefficient provides an answer to the relationship between ESG compliance and financial performance of listed property companies. In the year before ESG compliance, most of the dependent variables negatively correlated with each of the independent variables. However, the results of the study found that during ESG compliance (2019 until 2022) there are three dependent variables that have a positive relationship with each of the independent variables, namely NPM, ROE and ROA. The variable ENV has a stronger relationship with NPM, ROE and ROA when comparing the R value of these three variables with other independent variables (SOC and GOV). The relationship between the ENV, SOC and GOV variables and NPM, ROE and ROA shows a positive correlation. However, the R value for the NPM and ROA variables against GOV is low even though it shows a positive value of 0.093 and 0.80 , respectively. The post-2019 positive correlations suggest ESG compliance is increasingly aligned with financial performance, particularly profitability. These findings are consistent with Buallay (2019), who observed similar effects in European firms. Alareeni and Hamdan (2020), however, reported negative relationships in USA contexts, highlighting regional variation. Buallay (2019) found that when a company makes a disclosure of compliance for the environment, it can have a positive effect on the company's ROE. Meanwhile, the study conducted by Alareeni and Hamdan (2020) has a result that is contrary to the findings of this study in which they found that environmental exposure is negatively associated with variables ROE and ROA. The ENV showed the strongest correlation with financial indicators, possibly due to regulatory visibility and environmental certification incentives. Meanwhile, GOV and SOC had weaker effects, potentially reflecting reporting immaturity or resource allocation imbalances.

CONCLUSION

The primary objective of this study was to examine the relationship between ESG disclosure and the financial performance of listed property companies in Malaysia. The findings confirm that ESG implementation is positively associated with financial performance, particularly in terms of profitability.

However, the strength and nature of this relationship vary across the individual ESG components, indicating that each pillar contributes differently to financial outcomes.

Given the limitations of correlation-based analysis, future research should aim to establish causality by employing longitudinal or panel data methods. Additionally, incorporating alternative performance measures—such as Tobin’s Q, Jensen’s Alpha, or risk-adjusted metrics—may offer more robust insights into the ESG-performance nexus. Sector-specific investigations, particularly within the construction and REIT domains, are also recommended to capture industry heterogeneity and enhance comparative understanding.

As a developing country, Malaysia’s ESG landscape is still evolving and awareness among stakeholders remains relatively low. Moreover, listed property firms operate across multiple sectors—such as construction, real estate, REITs and plantation—which necessitates sector-specific ESG assessment frameworks to enable meaningful comparisons and improve benchmarking accuracy.

Ultimately, property firms should be encouraged to integrate ESG principles into their core operations – not only to ensure long-term sustainability and regulatory compliance but also to enhance investor confidence and market competitiveness. This study contributes to the growing body of ESG literature by highlighting the importance of structured ESG implementation and disclosure, particularly within the Malaysian property sector.

ACKNOWLEDGEMENTS

This work was supported by the National Real Estate Research Coordinator (NAPREC), Ministry of Finance Malaysia under Grant No. NAPREC(R&D) 02/2024.

REFERENCES

- Alareeni, B.A. and Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance*, 20(7): 1409–1428. <https://doi.org/10.1108/CG-06-2020-0258>
- Alkaraan, F., Albitar, K., Hussainey, K. and Venkatesh, V.G. (2022). Corporate transformation toward Industry 4.0 and financial performance: The influence of environmental, social and governance (ESG). *Technological Forecasting and Social Change*, 175: 121423. <https://doi.org/10.1016/j.techfore.2021.121423>
- Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality: An International Journal*, 30(1): 98–115. <https://doi.org/10.1108/MEQ-12-2017-0149>

- Dai, T. and Tang, C. (2022a). *Unifying ESG and Supply Chain Thinking: An Urgent Call to Action in the Post-Pandemic Era*. AsiaGlobal Papers No. 5. Hong Kong: Asia Global Institute, The University of Hong Kong.
- . (2022b). Frontiers in service science: Integrating ESG measures and supply chain management: Research opportunities in the postpandemic era. *Service Science*, 14(1): 1–12. <https://doi.org/10.1287/serv.2021.0295>
- Deshayes, P. (2012). The construction sector facing the challenges of sustainable development: logics of innovation and/or issues of change. *Innovations*, 37: 219–236. <https://doi.org/10.3917/inno.037.0219>
- Global Real Estate Sustainability Benchmark (GRESB). (2022). Putting the S in ESG: Resources for responsible supply chains. *GRESB*, 24 August. Available at: <https://www.gresb.com/nl-en/resources-for-responsible-supply-chains/> [Accessed on 24 August 2022].
- Hauke, J. and Kossowski, T. (2011). Comparison of values of Pearson's and Spearman's correlation coefficients on the same sets of data. *Quaestiones Geographicae*, 30(2): 87–93. <https://doi.org/10.2478/v10117-011-0021-1>
- Ismail, N., Andridho, N., Md Isa, M.A., Rahman, N.H.A. and Ismail, N. (2022). Corporate sustainability and firms' financial performance: Evidence from Malaysian and Indonesian public listed companies. *International Journal of Economics and Management*, 16(2): 213–224. <https://doi.org/10.47836/ijeam.16.2.05>
- Khairulanuwar, A.J. and Chuweni, N.N. (2021). The significance and performance analysis of Malaysian real estate investment trusts. *International Journal of Law and Management*, 63(4): 417–430. <https://doi.org/10.1108/IJLMA-01-2020-0022>
- Klimkiewicz, K. (2017). The role of ESG-based compensation in sustaining the supply chain. *Journal of Reverse Logistics*, 3: 12–17.
- Kramer, M.R. and Pfitzer, M.W. (2022). The essential link between ESG targets and financial performance. *Harvard Business Review*, September–October.
- Lee, S.P. and Isa, M. (2023). Environmental, social and governance (ESG) practices and financial performance of Shariah-compliant companies in Malaysia. *Journal of Islamic Accounting and Business Research*, 14(2): 295–314. <https://doi.org/10.1108/JIABR-06-2020-0183>
- Li, T.T., Wang, K., Sueyoshi, T. and Wang, D.D. (2021). ESG: Research progress and future prospects. *Sustainability*, 13(21): 11663. <https://doi.org/10.3390/su132111663>
- Mohammad, W.M.W. and Wasiuzzaman, S. (2021). Environmental, social and governance (ESG) disclosure, competitive advantage and performance of firms in Malaysia. *Cleaner Environmental Systems*, 2: 100015. <https://doi.org/10.1016/j.cesys.2021.100015>
- Oloke, O.C., Akindele, N.A. and Olagunju, O.O. (2021). Supply chain management in real estate practices: The estate surveyor and valuers' perspective. *International Journal of Real Estate Studies*, 15(2): 75–82. <https://doi.org/10.1113/intrest.v15n2.91>
- Platnari, M. (2023). The effect of ESG reporting on market value. *Journal of European Business*, 48(6): 119–132.
- Principles for Responsible Investment (PRI) (2017). Managing ESG risk in the supply chains of private companies and assets: Why ESG factors in the supply chain matter. *PRI*, 28 November. Available at: <https://www.unpri.org/private-equity/managing-esg-risk-in-the-supply-chains-of-private-companies-and-assets/615.article> [Accessed on 28 November 2024].

- Siew, R.Y.J. (2015). A review of corporate sustainability reporting tools (SRTs). *Journal of Environmental Management*, 164, 180–195. <https://doi.org/10.1016/j.jenvman.2015.09.010>
- Tarmuji, I., Maelah, R. and Tarmuji, N.H. (2016). The impact of environmental, social and governance practices (ESG) on economic performance: Evidence from ESG score. *International Journal of Trade, Economics and Finance*, 7(3): 67–74. <https://doi.org/10.18178/ijtef.2016.7.3.501>
- Thomas, C.J., Tuyon, J., Matahir, H. and Dixit, S. (2021). The impact of sustainability practices on firm financial performance: Evidence from Malaysia. *Management and Accounting Review*, 20(3): 211–243. <https://doi.org/10.24191/MAR.V20i03-09>
- _____. (2020). Analysis of corporate sustainability practice and impacts to corporate values in Malaysia: Data visualization approach. *International Journal of Accounting, Finance and Business (IJAFB)*, 5(30): 148–164.
- Trisnowati, Y., Achsani, N.A., Sembel, R. and Andati, T. (2022). The effect of ESG score, financial performance and macroeconomics on stock returns during the pandemic era in Indonesia. *International Journal of Energy Economics and Policy*, 12(4): 166–172. <https://doi.org/10.32479/ijeeep.13212>
- Whelan, T., Atz, U., Van Holt, T. and Clark, C. (2021). *ESG and Financial Performance: Uncovering the Relationship by Aggregating Evidence from 1,000 Plus Studies Published between 2015–2020*. New York: NYU Stern Center for Sustainable Business and Rockefeller Asset Management.
- Wu, Z. (2022). The analysis of the relationship between ESG and profitability of stocks by linear regression. In G.V. Bhau, Y. Shvets and H. Mallick (eds.), *Proceedings of the 2022 International Conference on Mathematical Statistics and Economic Analysis (MSEA 2022)*. Amsterdam: Atlantis Press, 699–703. https://doi.org/10.2991/978-94-6463-042-8_100