

EXAMINING ESG DISCLOSURE PRACTICES AND FIRM PERFORMANCE IN THE FOOD AND BEVERAGES INDUSTRY: A CONTENT ANALYSIS APPROACH

Raja Adzrin Raja Ahmad¹, Lau Peei Peei², Nurul Azlin Azmi^{3*}

^{1,3}Faculty of Accountancy, Universiti Teknologi MARA, Johor Branch, Segamat Campus, Jalan Universiti Off, KM 12, Jalan Muar, Kemajuan Tanah Jementah Batu Sebelas, 85000 Segamat, Johor, Malaysia

²Wawasan Open University, Jln Pudu Ulu, 56100 Cheras, Kuala Lumpur, Malaysia

*Corresponding email: nurul516@uitm.edu.my

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ABSTRACT

The relationship between ESG disclosure and firm performance has recently gained significant attention. ESG disclosure provides transparency and accountability to stakeholders. It enables them to evaluate a company's performance in crucial environmental, social, and governance areas, facilitating informed decision-making and enforcing corporate responsibility. This study examines the effect of Environmental, Social, and Governance (ESG) disclosure on firm performance. Using a random sampling technique of the subsector Food and Beverages industry from the Main Market Bursa Malaysia, the final sample consisted of ten firms in 2021. This study used content analysis to measure ESG disclosure, while the financial data were gathered from the annual report. It was found that ESG disclosure is positively and significantly associated with short-term performance, as measured by the Return on Assets (ROA). This implies that firm investment in ESG and better disclosure can attract investors and increase short-term performance. However, insignificant associations were found between ESG disclosure and Tobin Q. Furthermore, firm size is negatively significant with ROA, while firm leverage is positively significant with long-term performance (Tobin Q). This study adds substantial evidence of ESG disclosure's effect on firm performance in the food and beverages industry. This paper offers evidence on ESG disclosure and firm performance using content analysis based on the FTSE Russell ESG rating methodology. ESG disclosure benefits firms by enhancing reputation, access to capital, risk management, and operational efficiency while benefiting society through environmental stewardship, social impact, stakeholder engagement, and long-term economic stability. It promotes ethical business conduct that considers different stakeholders' needs and fosters sustainable development for a better future. Further, by integrating ESG into fundamental business practices, firms could contribute to a more sustainable future and foster long-term business resilience.

Keywords: Environmental, Social, and Governance (ESG) Disclosure, Firm Performance

1.0 INTRODUCTION

Since its origin before the 1990s, the idea of "sustainability" has gained prominence on a global scale and has been hotly debated in recent years (Ahi & Searcy, 2015). In this decade, issues like climate change, health crises, the greenhouse effect caused by industrialization,

and extensive deforestation to make room for more new advancements have captured the attention of the entire world like never before.

Sustainability, in a nutshell, refers to the concept of development that fulfills the present needs without compromising the needs of the future generation (Armstrong, 2020). The concept of managing it is also being incorporated into organisations' day-to-day business and operation activities, involving decision-making, which requires integration of the necessary actions and management approach (Ahi & Searcy, 2015). While the concept is used widely, the terms "sustainability" or "sustainable development" are suggested to be used interchangeably in the literature.

Considering this, Environmental, Social, and Governance (ESG) criteria were used as one of the sustainability dimensions in addition to the accounting data of the corporate performance (Mohamad, 2020). Various practices, policies used, and projects executed are encompassed in the initiatives on how the firms are meeting their obligations towards doing social good (Husted & Sousa-Filho, 2017; Matten & Moon, 2008) and enhancing the well-being of living organisms and the earth (Brickson, 2007; Husted & Sousa-Filho, 2017).

ESG, an acronym for environmental, social, and governance, is a framework designed to understand and measure how an organization identifies, assesses, and manages risks and opportunities related to sustainability, encompassing the aspects of environmental, social, and governance criteria (Raja Ahmad, 2023). Investors use this framework as a holistic approach to consider issues that influence corporate behaviour when making investment decisions (Armstrong, 2020).

Each of the pillars encompasses different issues to be assessed with specific targets. Firstly, the environmental pillar refers to issues such as deforestation, climate change, water and air pollution, exploitation of land, and loss of biodiversity. The evaluation is done on the efforts by a company in their energy efficiency management, emission of greenhouse gas, waste management as well water and resource management (Billio et al., 2021). Previous findings indicated that more eco-friendly firms benefited from higher stock returns, and the results remain significant. Secondly, the social pillar covers topics regarding gender equality, human rights, labour standards, health and safety, and employee satisfaction (Billio et al., 2021). Previous research argued that a distinct positive relationship exists between long-term stock return and employee satisfaction (Billio et al., 2021; Edmans, 2011). Lastly, the governance pillar encapsulates board management aspects such as independence of the board's administration, rights of shareholders, remunerations, anti-competitive practices, etc. Some studies suggest that the company's profitability can be positively impacted by strong and good governance practices (Billio et al., 2021).

Tracing back to the end of 2015, when the United Nations (UN) announced its adoption go the 2030 Agenda of Sustainable Development, 17 Sustainable Development Goals (SDGs) were established to call on countries to put effort into achieving the goals by or before 2030 (Sánchez-Chaparro et al., 2022). It is a blueprint plan with actions for people, planet, and prosperity, to be achieved with an ambitious and broad scope that addresses other aspects with regards to peace, justice, and effective institutions covering the three dimensions of sustainable development, namely social, economic and environmental (UN, 2015). Following suit, the United Nations has called on all sectors, particularly businesses, to demonstrate their critical role in achieving the agenda by engaging in global challenges and developing a socially and environmentally sustainable business model.

Research in the past has also pointed out that firms with good ESG performance will usually be at their advantage for their investors to make strategic decisions on top of the financial performance (Wan Muhammad & Wasiuzzaman, 2021). It is suggested that investors

reward firms with good ESG performance, while poor disclosure could indicate idiosyncratic risks (Zhou & Zhou, 2021). Firms that comply with ESG requirements are viewed to present better governance and exhibit more concerns towards environmental development and sustainability. Li et al. (2018) argued that when a firm has better ESG disclosure, it helps attract not only financial investors but also other major stakeholders. This will result in an improved mutual relationship and benefit the firms financially in the long run. By disclosing ESG information, the focus shifts towards how the business is being run, leading the firm to strive for better performance in areas such as material consumption, environmental risk reduction, and ultimately increasing the firm's value (Li et al., 2018).

The increased transparency and visibility of ESG activities and performance allow investors to make better decisions, as this information has become a particularly referenced factor in risk management (Duuren et al., 2016). It is essential to understand that different firms or industries are impacted by various types of ESG risks. These risks, including extreme weather events, water shortages, consumer concerns, and regulatory changes, to name a few, are more dynamic and evolving compared to traditionally quantified metrics. They may be becoming more significant than before. Therefore, selecting and prioritising key ESG issues specific to each industry becomes crucial to effectively capture the exposure to emerging and dynamic risks that affect companies (Lee et al., 2020).

Needs and interests in ESG disclosure from investors and companies have grown since the early 2010s. Along with that, guidelines to promote reporting ESG information were developed by key organisations globally. Various global indices were also designed to measure and report sustainability performance (Armstrong, 2020). For example, the United Nations Sustainable Stock Exchanges (SSE) launched "Model Guidance on Reporting ESG Information to Investors" in 2016, at the London Stock Exchange for investors and issuers to promote corporate reporting that is transparent, highly efficient with greater depth that contains ESG information (Bostwick et al., 2015; Wan Muhammad & Wasiuzzaman, 2021). As part of the post-2015 sustainable development frameworks by the United Nations, large businesses must report their environmental and social impact activities before 2030.

On the other hand, the Global Reporting Initiative (GRI), an independent international organisation, developed the GRI reporting standards to assist businesses in responsibly reporting on the impact of their operations on critical sustainability issues. These issues include climate change, corruption, human rights, energy, water, and many other material topics specific to each industry sector. Regarding the ESG score rating system, established business consulting firms have developed various systems worldwide over the years (Alareeni & Hamdan, 2020).

These indicators serve as indexes for measuring ESG performance. The three leading providers at the international level are Bloomberg, Thomson Reuters, and MSCI. They have developed evaluation tools that rate and classify performances, categorising companies based on their best and worst performances regarding ESG issues. In Malaysia, the practice of ESG disclosures by listed firms began in 2015 with the launch of the Sustainability Framework by Bursa Malaysia Securities Berhad (Wan Muhammad & Wasiuzzaman, 2021). Listing Requirements were amended to include a sustainability statement in the annual reports of listed issuers. Concurrently, a Sustainability Reporting Guide was issued to assist listed issuers in enhancing their disclosures on sustainability and meeting stakeholders' information requirements (Law, 2016).

The latest edition of the Malaysia Code of Corporate Governance (MCCG) in 2021 introduced guidelines and best practices for the integration and consideration of sustainability as part of the update (Malaysian Code on Corporate Governance, 2021). Companies on the FTSE Bursa Malaysia Top 100 Index or those with market capitalisations amounting to at least

MYR 2 billion are classified as “Large Companies”. The board of these companies ensures continuous communication between them to their stakeholders by providing necessary information to all stakeholders to facilitate mutual understanding of objectives and expectations. To do so, they are encouraged to consider adopting integrated reporting, which is referred to as the globally recognised framework. This will help the stakeholders make informed decisions regarding policies on social responsibility, governance, and the environment.

Despite the vast attention given across many, with the majority of research on the random industry, a few questions and problems still need to be explored and will be interest of to this study. Firstly, while many studies may be carried out on vast population sizes over many years, how will the significance level vary if the sample is narrowed to a specific industry? There is a limited study focusing on the food & beverage industry, but most of the data are from the general pool of randomly listed companies (Bae et al., 2023 ; Weber & Saunders-Hogberg, 2018). Consumers in Malaysia have been increasingly focused on health-conscious food choices. There is a growing demand for organic, natural, and functional food products. People are seeking out options that offer nutritional benefits and cater to specific dietary needs, such as vegetarian, vegan, and gluten-free options.

Sustainability and ethical considerations have gained importance in the food and beverage industry. Consumers prefer brands that prioritize sustainable sourcing, environmentally friendly packaging, and ethical treatment of animals. This trend has led to the rise of eco-friendly initiatives and the adoption of sustainable practices by companies. Malaysia's food and beverage industry, like in many other countries, is increasingly recognizing the importance of Environmental, Social, and Governance (ESG) practices and disclosure.

Secondly, the adoption rate of ESG practice is still low in Malaysia as there is no mandatory requirement for disclosure across all firms, and reporting is mainly done by multinational companies or listed companies in Malaysia by large (Atan et al., 2016; Wan Muhammad & Wasiuzzaman, 2021). Thirdly, there are multiple global ESG ratings and scale frameworks which can be complex and complicated as there is no one standard measurement that can fit all industries of all varieties. Neither is there a Malaysian standard of ESG rating framework, and even Bursa Malaysia depends on the FTSE Russell rating scheme for its ESG score (Atan et al., 2016).

This research attempts to examine the effect of ESG disclosure and financial firm performance, by narrowing the scope of a sample by focusing on the publicly listed firms in the subsector of food and beverages. This study aims to contribute as an additional finding to the previous studies by other researchers on the association of ESG disclosure to the firm performance by extending the study to a specific industry sub-sector, instead of looking at the findings from the wider level if there is consistency existed to other studies conducted. Besides, this study reviews the challenges and presumptions on the disclosure and how improvement can be made towards the ESG disclosure, and finally through the findings the study aims to provide researchers, policymakers, and sustainability bodies to effectively identify what can be done to encourage and increase the rate of adoption of ESG disclosure in their planning and strategy programs.

The remainder of this paper is organised as follows. The next section provides an overview of the ESG concept, discussing previous literature reviews, and theories, and developing the theoretical framework and hypotheses. This is followed by a description of the research methodology, sampling design, and variable definitions. Subsequently, the findings from the descriptive and regression analysis are discussed. Finally, the last section includes the conclusion, limitations of the study, and suggestions for future studies.

2.0 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Stakeholder theory

The theory that underpins this study is stakeholder theory, which was developed in the early 1980s by several scholars. Stakeholder theory emphasises the importance of recognising and managing the relationships between individuals and groups that have an interest in or are affected by a business. According to this theory, a firm should aim to create value for its stakeholders, and these stakeholders can have mutual effects on each other (Parmar et al., 2010). There are two categories of stakeholders which are primary stakeholders and secondary stakeholders (Hidayana et al., 2023). A person or entity that is essential to the company's survival is considered a primary stakeholder. On the other hand, those who have an impact on or are impacted by the company are considered secondary stakeholders. The groups that constitute stakeholders in a business include employees, suppliers, customers, financiers (such as stockholders and banks), and communities. These stakeholders have a vested interest in the activities of the business. The responsibility of company executives is to maximise value creation for these stakeholders and distribute the value accordingly. In situations where trade-offs are necessary, efforts should be made to improve outcomes for all parties involved. Therefore, it is crucial to consider the interests of all stakeholders, rather than focusing exclusively on a select few, as highlighted by Sila & Cek (2017).

In addition to stakeholder theory, the Triple Bottom Line (TBL) concept is also utilised as the framework for this study. It expands the notion of value maximisation beyond the interests of shareholders to encompass all stakeholders (Achim & Borlea, 2015). The TBL model was developed by John Elkington in the mid-1990s as a means of providing a measurement framework for American corporations. The model is often referred to as the 3Ps: profits, people, and the planet, representing interconnected dimensions. Under this framework, organisations are expected to comprehensively report not only their financial performance, profits, and shareholder value but also their environmental and social performance, which are important to shareholders and support sustainability goals. In terms of the economy, maximising economic performance contributes to the maximisation of shareholder value. Maximising social performance leads to improved economic well-being for all stakeholders, including employees, suppliers, communities, customers, creditors, investors, and corporate governance matters. Lastly, by prioritising environmental performance and avoiding negative impacts on surrounding communities and the environment, organizations can achieve the best environmental outcomes.

In 2018, John Elkington, the originator of the Triple Bottom Line (TBL) concept, revisited and refined the concept to highlight that it was not merely intended as an accounting tool, but rather aimed to stimulate deeper reflections on capitalism and its future (Elkington, 2018). The initial objective was to advocate for system change, prioritizing transformative actions that disrupt unsustainable sectors while scaling up market-based solutions for future generations. This approach emphasizes breakthrough changes and asymmetric growth, actively side-lining unsustainable practices and promoting sustainable alternatives.

Following the development of the Triple Bottom Line (TBL), a fourth dimension of performance, 'governance,' was introduced. This led to the emergence of the Environmental, Social, and Governance (ESG) framework, which measures non-financial performance (Achim & Borlea, 2015). In this approach, ESG encompasses corporate governance, aiming to protect investors from potential harm by ensuring appropriate governance practices and measures are in place (Campbell, 2007; Husted & Sousa-Filho, 2017). An alternative way to

illustrate the concept is that firms should adopt best practices in both corporate social responsibility and corporate governance to create value and ensure long-term sustainability (Achim & Borlea, 2015).

2.2 ESG disclosure

Investors and stakeholders rely on ESG information to assess risks and opportunities in firms, making ESG scores and reporting highly significant (Alareeni & Hamdan, 2020). The availability of information is crucial for investors and stakeholders to make informed decisions regarding capital allocation and mitigate potential risks. Increased disclosure levels enhance confidence, particularly in the stock market. The global focus on environmental issues and growing public awareness have compelled firms to establish environmental regulations and standards. Given the frequent pressure from stakeholders, authorities, and NGOs, more firms are complying with the established regulations and disclosing information on the firm's commitment to managing the issue (Alareeni & Hamdan, 2020; Md Nor et al., 2016).

Various rating agencies have developed measurements for the performance of the three dimensions of ESG since the early 2010s. These measurements serve as complementary scores to financial performance and enhance the accuracy of risk assessments (Achim & Borlea, 2015). One widely used framework is the GRI Standards, which provides a modular system of interconnected standards. It assists organisations in transparently presenting their public reporting on the impacts of their activities to stakeholders and other interested parties (Caputo et al., 2021). By following these reporting guidelines, organisations can credibly communicate both positive and negative impacts related to sustainability topics, allowing for relative comparability with other organisations (Machado et al., 2021). This enables organisations to assess internal policies and strategies, make decisions that align with targets and goals, and demonstrate integration with sustainable development. For external stakeholders such as investors, this information facilitates the evaluation of an organisation's strategy, identification of financial risks, and assessment of long-term success (Stefanescua et al., 2016).

To assess the relative performance of companies in terms of ESG, several models incorporate a combination of financial and non-financial inputs, as noted by Lee et al. (2020), from the research company MSCI. Investors are typically interested in these models as they aim to capture financial risks and opportunities and add value to their investment decisions. While sustainability is a commonly discussed goal across all types of organisations (both profit and non-profit, as well as government entities), measuring the extent of sustainability and growth has posed challenges (Slaper & Hall, 2011).

Different approaches to measuring ESG scores can yield varied results for investors. Combining or aggregating ESG scores has been found to better reflect the dynamic changes in the ESG landscape, including emerging risks (Lee et al., 2020). Conversely, when individual pillar scores for Environmental (E), Social (S), and Governance (G) are used with equal weighting, the financial significance may be reduced, leading to a diverse relationship with firms' financial characteristics. It is challenging for rating providers to determine the most influential criteria for measuring firm performance, find the optimal approach to appropriately present the combination of ESG issues in the aggregate ESG score, and improve the ratings themselves (Lee et al., 2020).

By the early 2020s, the Triple Bottom Line (TBL) concept had become widely recognised in the business lexicon, as described by The Economist magazine (Elkington, 2018). A TBL company is one that fully considers the costs of running the business. Subsequently, various rating platforms such as the Global Reporting Initiative (GRI) and Dow Jones Sustainability

Indexes (DJSI) have been introduced to influence corporate accounting, stakeholder engagement, and strategy development.

2.3 ESG Disclosure and Firm Performance

Extensive studies have been conducted to assess the relationship between a firm's financial performance and its ESG performance (Husted & Sousa-Filho, 2017). Numerous studies focusing on each dimension of ESG have also been developed to understand their respective impacts on the most concerned stakeholders. ESG performance has been recognised as an important aspect for firms to develop sustainable strategies that can influence their overall performance (Husted & Sousa-Filho, 2017). The growing interest from investors and stakeholders has significantly contributed to the substantial efforts invested in ESG initiatives.

However, empirical studies conducted over the years to examine the effects of ESG on firm performance have yielded conflicting results. Some studies have reported adverse results between the two, while others have found positive associations (Sadiq et al., 2020). Studies have indicated that ESG disclosure has the potential to improve firm performance and firm value. Good performance of a firm will undoubtedly lead to positive outcomes and increased accessibility (Bhayangkara, 2023). Furthermore, a higher ESG score can also lead to a competitive advantage (Wan Muhammad & Wasiuzzaman, 2021). Research conducted on 70 Malaysian firms from 2009 to 2018 demonstrated a significant relationship between firm value, measured by Tobin's Q factor, and ESG scores (Mohamad, 2020). By prioritising transparency in environmental concerns, accountability in governance, and social responsibility, firms can enhance their value by boosting stakeholders' confidence and perception.

Additionally, a study utilising panel data from 80 companies in Malaysia and Singapore between 2010 and 2014 found a positive and significant relationship between ESG practices and economic performance. Moreover, corporate economic performance was positively associated with ESG disclosure within an effective corporate governance system across more than 1,200 listed companies in Asia between 2005 and 2017 (Alsayegh et al., 2020).

Despite the numerous benefits associated with ESG disclosure, certain studies have failed to establish a definitive relationship between the disclosure of the environmental pillar and firm performance, as observed in research conducted on UK firms (Brooks & Oikonomou, 2018; Qiu et al., 2016). However, when firms engage in social disclosures, it has been found to result in higher market values, possibly due to anticipated future cash flow. Furthermore, it has been suggested that firms with extensive reporting in their disclosures often possess greater economic resources, leading to overall positive net economic benefits (Qiu et al., 2016).

Numerous studies have examined the negative relationship between ESG practices and a firm's financial performance since the inception of the concept in the early 2010s. The argument posits that a firm's primary focus should be on maximising shareholder profit, with the assumption that the profit should not be compromised by ESG activities (Sadiq et al., 2020). Similarly, in a study by Sadiq et al. (2020) on 122 listed firms in Malaysia with data from 2011 to 2019, it was found that ESG disclosure hurts firm value. Duque-Grisales and Aguilera-Caracuel (2022) also suggested a significantly negative relationship between ESG scores and financial performance in their study of 104 multinational companies in Latin America from 2011 to 2015. Similar results were observed when each pillar of environmental, social, and governance was examined separately about financial performance.

Some results show mixed findings of impacts between the ESG disclosure when the sub-components of the factors are separately analysed. For example, a study done by Sila & Cek

(2017) for close to 300 firms in Australia between the span of 2011 to 2016, it is found that the different pillar of ESG has different level of relationship towards economic performance. The study showed that the impact of social and performances towards economic performance was consistent and significantly positive with a greater effect size on environmental performance. As for governance performance, the significance relationship is very weak toward economic performance. A similar mix of results is found in an investigation done by Alareeni and Hamdan (2020) by sampling the US S&P 500-listed companies between 2009 and 2018. The results revealed that although ESG disclosure is positively affecting firms' performance, the relationships are mixed when the sub-components of ESG are assessed separately. The environmental and social components are negatively related to ROA but positively to Tobin's Q, while the governance component is both positively associated with ROA and Tobin's Q (Alareeni & Hamdan, 2020). In addition, firms with higher levels of ESG disclosure will gain higher ROA in return.

When examining the impact of ESG on firm value, it is important to acknowledge that different firms may have different motives behind their ESG reporting (Sadiq et al., 2020). Established multinational firms, for instance, may aim to enhance their reputation or demonstrate their reporting legitimacy, as highlighted in academic studies (Sadiq et al., 2020). While these findings are encouraging, it is important to note that the overall quality of ESG disclosures is heterogeneous, as mentioned by the guideline council of the Global Reporting Initiative (GRI) (Ashwin Kumar et al., 2016). On the other hand, some firms may underreport their ESG disclosures out of fear of tarnishing their reputation due to negative earnings or an inability to maintain a positive track record (Sadiq et al., 2020).

A summary of the mixed result of correlations between ESG performance to firm performance is presented in Table 1.

Table 1: Summary list of relevant empirical studies

Country	Findings on ESG to Financial Performance		Reference (s)
	Factors (Pairs of variables)	Results Of Significant / relationship	
Malaysia	• Between ESG score-Tobin's Q	Positive	(Mohamad, 2020)
Malaysia and Singapore	• Between ESG score-Economic performance	Positive	(Tarmuji et al., 2016)
Asian Firms	• Between ESG score-Economic performance	Positive	(Alsavagh et al., 2020)
UK	• Environment to firm profitability • Social disclosure matters the market value	Not-significant	(Qiu et al., 2016)
Malaysia	• Between ESG disclosure-Firm Value (Tobin's Q)	Negative	(Sadiq et al., 2020)
Latin America	• Between ESG score to Financial Performance	Negative	(Duque-Grisales & Aguilera-Caracul, 2021)
Australia	• Between Social I-Economic performance • Between Environmental and Governance-Economic performance	Positive Weak positive	(Sila & Cek, 2017)
US	• Between ESG disclosure-Firm Performance • Between E, S-ROA • Between E, S-Tobin's Q • Between G-Tobin's Q & ROA	Positive Negative Positive Positive	(Alareeni & Hamdan, 2020)

This study is built on the previous studies to examine the inconsistency in the findings surrounding the relationship between ESG performance and firm performance. As the results are seen as mixed, it is worth examining the result from time to time with further study as needed. Furthermore, there are limitations in the studies done specifically on the food & beverage manufacturing listed firms. Hence, two hypotheses are proposed below. Figure 1 illustrates the proposed theoretical framework.

H_1 : ESG disclosure positively influence the firm performance in the short term (ROA)

H_2 : ESG disclosure positively influence the firm performance in the long term (TobinQ)

3.0 RESEARCH METHOD

3.1 Data and Sample

The population of this study consists of 31 firms from the subsector food and beverages industry listed in the main market Bursa Malaysia in 2021. Using sample random sampling, the final sample consists of ten firms. The subsectors food and beverages (F&B) were chosen as a sample of this study because it is more stable in term of operation with lesser impact as compared to the other industry during the Covid-19 outbreak and global pandemic (2020), where lockdown or movement control has impacted many businesses on top of the many disruptions in the supply chain (MIDA, 2021). Besides that, F&B sectors also have high coverage among the end customers and a vast supply chain network.

The Environment, Social, and Governance Disclosure (ESGD) index data were hand collected based on the FTSE Russell ESG rating methodology. Data on the Return on Assets (ROA), Tobin Q, the firm leverage, and the firm size were gathered from the annual report.

3.2 Measurement

For the dependent variables, firm performance is proxied by short-term performance (Return on Assets) and long-term performance (Tobin Q). Return on assets (ROA) is a common and widely used short-term performance measure. ROA represents a firm's efficiency in asset usage from the financial aspect throughout a fiscal year given for short-term profitability (Yoon & Chung, 2018; Kyere & Ausloos, 2020). Consistent with prior studies by Md Nor et al., (2016) & Sarumpaet (2005) measured, ROA by dividing a firm's net profits by total assets. It measures how best a company has utilized its assets to generate profit from asset ownership (Yahya & Hidayat, 2020). While Tobin Q is calculated by dividing the company's total market value (including stock and debt) by the total assets (Christensen et al., 2010; Kyere & Ausloos, 2020). Prior studies have found that firms that reported higher Tobin Q performed well and outperformed their industry peers (Awaysheh et al., 2020; Mohamad, 2020; Yoo & Managi, 2022).

For the independent variables, the ESG disclosure Index (ESGD) was based on the FTSE Russell ESG rating methodology. Following the method, each firm's ESG exposure and performance were multi-dimensional, and the assessment was conducted under the three pillars of ESG that covered 14 themes that spread over 300 individual indicators (Ratsimiveh & Haalebos, 2021). A total of 14 themes based on the three pillars are provided as follows:

- Environmental pillar: biodiversity, climate change, environmental supply chain, pollution & resources, water security;
- Social pillar: customer responsibility, health & safety, human rights & community, labour standards, social supply chain;
- Governance pillar: Anti-corruption, corporate governance, risk management, tax transparency

The scoring was conducted based on the criteria mentioned above. A score of 1 was assigned if the firm disclosed ESG information in its annual report, while a score of 0 was given if it did not provide such information. The content analysis scoring method employed was consistent with the prior study conducted by Wan Muhammad & Wasiuzzaman (2021).

Then, the ESG disclosure score was counted based on adding up 14 themes, and the ratio was calculated as the ESG disclosure index. Below is the process of the ESG disclosure index:

Table 2. ESG Disclosure Index

#	Pillar	Themes	1	2	3	4	5	6	7	8	9	10
			Carlsberg Brewery Malaysia Bhd	Dutch Lady Milk Industries Bhd	Fraser & Neave Holdings Bhd	Heineken Malaysia Bhd	Hup Seng Industries Bhd	Hwa Tai Industries Bhd	Kawan Food Behd	Malayan Flour Mills Bhd	MSM Malaysia Holdings Bhd	Nestle (M) Bhd
1	Environment	Biodiversity	1	1	1	1	1	0	1	1	1	1
2		Climate Change	1	1	1	1	1	1	1	1	1	1
3		Pollution and Resources	1	1	1	1	1	1	1	1	1	1
4		Environmental Supply Chain	1	1	1	1	1	1	1	1	1	1
5		Water Security / Use/ Stewardship	1	1	1	1	1	1	1	1	1	1
6	Social	Customer Responsibility	1	1	1	1	1	1	1	1	1	1
7		Health and Safety	1	1	1	1	1	1	1	1	1	1
8		Human Rights and Community	1	1	1	1	1	1	1	1	1	1
9		Labor Standards / Practices	1	1	1	1	1	1	1	1	1	1
10		Social Supply Chain	1	1	1	1	0	0	0	1	1	1
11	Governance	Anti-Corruption	1	1	1	1	1	1	1	1	1	1
12		Corporate Governance	1	1	1	1	1	1	1	1	1	1
13		Risk Management	1	1	1	1	1	1	1	1	1	1
14		Tax Transparency	1	1	1	1	1	1	1	1	1	1
Disclosure count =			14	14	14	14	13	12	13	14	14	14
ESG Disclosure % =			100%	100%	100%	100%	93%	86%	93%	100%	100%	100%
ESG Disclosure Ratio =			1.00	1.00	1.00	1.00	0.93	0.86	0.93	1.00	1.00	1.00

We also control firm leverage and size, which might influence the results (Nielsen & Raswanta, 2018). Firm leverage is measured by debt ratio, dividing total liabilities by total assets. Firm size was measured by the logarithm of total assets (Mohamad, 2020).

3.3 Regression Model

Our basic specification for testing the hypotheses is as follows:

$$ROA = \beta_0 + \beta_1 ESGD + \beta_2 LEV + \beta_3 SIZE + \varepsilon \quad (1)$$

$$TobinQ = \beta_0 + \beta_1 ESGD + \beta_2 LEV + \beta_3 SIZE + \varepsilon \quad (2)$$

Where ROA is the ratio of net income to the total assets; TobinQ is total market capitalisation plus total liabilities over total assets; ESGD is the total ESG index; LEV is the ratio of total liabilities divided by total assets; and SIZE is the natural logarithm of total assets.

4.0 RESULT AND DISCUSSION

4.1 Descriptive Analysis

Table 3 reports the descriptive statistics for all the variables. The results in Table 2 indicated that the average ROA was 15%, with values ranging from -3% to 35.37%. The average TobinQ was 3.01, with values ranging from 0.20 to 10.25. The average ESGD is 0.97, with values ranging from 0.86 to 1. The ESGD indicates that better disclosure index among the sample firms. The control variable of the average firm's leverage (LEV) was 0.45, with the values ranging from 0.15 to 0.80. This indicates that there are firms that have high leverage. The average firm size (SIZE) was 5.94, ranging from 4.83 to 6.56.

Table 3. Descriptive Statistics

	Mean	Min	Max	Sd
ROA	0.15	-0.03	0.3537	0.12
TobinQ	3.01	0.20	10.25	3.34
ESGD	0.97	0.86	1	0.05
LEV	0.45	0.15	0.80	0.20
SIZE	5.94	4.83	6.56	0.57

Notes: ROA is the ratio of net income to the total assets; TobinQ is total market capitalisation plus total liabilities over total assets; ESGD is the total ESG disclosure index; LEV is the ratio of total liabilities divided by total assets; and SIZE is the natural logarithm of total assets.

4.2 Multiple Regression Analysis

Table 4 presents the regression results for the effect of the ESG disclosure index (ESGD) on firm performance. For model 1, we first estimated the impact of the ESG disclosure index on short-term performance (ROA). The results show that ESGD has a positive and significant relationship with ROA. The result proves that better ESGD improves the firm's short-term performance (ROA). Align with Wan Muhammad & Wasiuzzaman (2021), who also found that higher ESG scores lead to higher competitive advantage. Moreover, Alsayegh et al. (2020) found that ESG disclosure positively correlates with corporate economy performance among Asian countries. Also, ESG disclosure improves a firm's performance (Husted & Sousa-Filho, 2017). Our finding supports that better ESG transparency may boost stakeholders' confidence and perception and indirectly increase firm performance (ROA).

For Model 2, we estimated the effect of the ESG disclosure index on long-term performance (Tobin's Q). However, we did not find any significant relationship between those associations. Our findings align with Abdullah et al. (2020), who found no significant relationship between ESG factors and firm value among FTSE4G Bursa Malaysia-listed firms. However, their study reveals that firms have gained a good reputation and competitive advantage from FTSE4G Bursa Malaysia listed firms, regardless of whether they issued annual sustainability reports.

ROA is a financial measure that gauges a firm's profitability by examining how efficiently it generates profits from its assets. As mentioned earlier, transparent ESG disclosure demonstrates a firm's commitment to sustainability and responsible business practices. Firms that prioritise ESG factors may experience improved operational efficiency, lower risks, and enhanced reputation. A positive reputation can then attract more investors, customers, and business partners, leading to increased revenue and profitability, which positively influences ROA. While ESG performance can influence a firm's market perception and reputation, its impact on Tobin's Q might not be as direct or immediate. Tobin's Q is influenced by various factors, including market sentiment, debt level and financial stability, growth prospects, and perceived intangible assets, which may not always align perfectly with ESG performance (Fu et al., 2016).

The control variables for Model 1 show that only the firm's size (SIZE) has a negative and significant relationship with ROA. Our finding is consistent with (Akram et al., 2021), who also found a negative relationship between SIZE and ROA due to dominator variables. A negative association was found in the study using the dominator of total sales, whereas the opposite direction was found in the study using the dominator of total assets. While for model 2, only the firm's leverage (LEV) has a positive and significant relationship with Tobin's Q. The positive association between LEV and Tobin's Q is because the leverage is part of Tobin's Q ratio.

Table 4. Regression Result

	Model 1 ROA	Model 2 Tobin's Q
Constant	-2.3895 -4.06***	-0.1531 -0.01
ESGD	4.5511 4.27***	-1.9247 -0.04
LEV	0.0536 0.45	12.7764 2.31*
SIZE	-0.3207 -3.70**	-0.0693 -0.02
Adj. R	72.64%	32.57%

Notes: The reported t-statistics are in parentheses. Asterisks denote statistical significance at the 1% (***), 5% (**), or 10% (*) levels, respectively. ROA is the ratio of net income to the total assets; Tobin Q is total market capitalisation plus total liabilities over total assets; ESGD is the total ESG disclosure index; LEV is the ratio of total liabilities divided by total assets; and SIZE is the natural logarithm of total assets.

5.0 CONCLUSION

The food and beverage industry's operations have significant environmental implications, including resource consumption, waste generation, and carbon emissions. ESG disclosure can involve reporting on measures taken to reduce environmental impact, such as adopting sustainable sourcing practices, minimising food waste, implementing energy-efficient operations, and reducing greenhouse gas emissions (Camilleri, 2015). Companies may also disclose their efforts towards sustainable packaging and supply chain management (Tamimi & Sebastianelli, 2017).

In addition, the food and beverage industry has a direct impact on society, including areas such as public health, labour practices, and community engagement (Macassa, 2022). ESG disclosure can encompass information about initiatives promoting responsible sourcing, fair trade practices, worker welfare, and employee diversity and inclusion (Klinger et al., 2022). It may also involve disclosing efforts to support local communities, invest in social development programs, and contribute to the well-being of society at large.

As for the governance issue, good governance is crucial in maintaining transparency, accountability, and ethical conduct within the food and beverage industry. ESG disclosure in this context may cover aspects such as board composition, executive compensation, risk management, anti-corruption measures, and adherence to ethical business practices (Klettner et al., 2014). Disclosing governance practices provides stakeholders with insights into a company's commitment to ethical conduct and responsible decision-making (Abu-Tapanjeh, 2009).

ESG disclosure has a variety of uses in the food and beverage sector. It can assist businesses in demonstrating their dedication to sustainability, luring ethical investors, enhancing brand reputation, and interacting with constituents that value ESG issues (Saher et al., 2023). Furthermore, by providing investors, clients, and other stakeholders with information on the environmental and social impact of the businesses they do business with, ESG disclosure can help them make well-informed decisions. It is worth noting that different nations and legal systems may have different requirements for certain ESG priorities and disclosure. While aligning the food and beverage sector with more general sustainability objectives and stakeholder expectations, the overarching objective is to promote openness, accountability, and sustainable practices within the sector.

This present study aims to examine the effects of Environmental, Social, and Governance (ESG) disclosure on firm performance in the subsector Food and Beverage industry in Malaysia. Our findings found that ESG disclosure significantly boosts short-term performance (ROA) but not long-term performance (Tobin's Q). This could be due firms have gained a good reputation and competitive advantage from FTSE4G Bursa Malaysia listed firms, regardless of whether they issued annual sustainability reports. Therefore, no significant relationship was found between ESG disclosure and Tobin Q.

Our findings support and align with prior studies in the field of ESG that also found a positive and significant relationship between firm performance (Wan Muhammad & Wasiuzzaman, 2021; Alsayegh et al., 2020; Husted & Sousa-Filho, 2017). Firms with strong ESG performance are often seen as demonstrating good performance and public image. As

a result, this may portray a good image to the customers and may attract other stakeholders. This can positively impact a company's profitability and, in turn, its ROA. In other words, as the awareness of environmental and social issues grows, firms that prioritise ESG considerations are more likely to be rewarded with improved financial performance. Our finding supports that better ESG transparency may boost stakeholders' confidence and perception and indirectly increase firm performance (ROA).

Our findings provide evidence to the firms, investors, and regulators on the importance of ESG disclosure. The enforcement of ESG disclosure and recommendation of the Malaysian Code of Corporate Governance (MCCG 2021) among publicly listed firms on Bursa Malaysia can improve ESG disclosure. The ESG investment, practices, and disclosure can increase net profit, and improve a firm's competitive advantage, and performance. Moreover, the ESG disclosure among firms helps the government to achieve the Sustainable Development Goals (SDG) Agenda by 2030.

This study offers a new finding on ESG disclosure and firm performance in the subsector of F&B industries. This study has only chosen the ROA and Tobin's Q as the proxies of firm performance. Future studies may use multiple measures of firm performance, such as return on equity or cash ratio. Besides that, this study only controls for firm leverage and firm size. Using other control variables, such as profitability, and marketability ratio, may provide a more comprehensive view and minimize confounding effects. Also, the sample size of this study was small and not able to offer a time series or panel data analysis. Therefore, future studies could extend the period and subsector industry to provide an exhaustive picture of the effect of ESG and firm performance in the consumer industry.

CO-AUTHOR CONTRIBUTION

The authors affirmed that there is no conflict of interest in this article. All authors have contributed significantly to the research and preparation of the paper. Author 1 wrote the introduction, literature review, and conclusion. Author 2 contributed to the data collection and prepared the ESG disclosure index based on the FTSE Russell ESG rating methodology. Author 3 wrote the research methodology, conducted the statistical analysis, and interpreted the results.

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REFERENCES

- Abdullah Sani, N. F., Muda, R., Arshad, R., & Nair, R. (2020). The influence of environmental, social, governance factors and firm performance on the sustainable reporting of Malaysian companies. *International Journal of Economics and Business Research*, 20(4), 407–424.
- Abu-Tapanjeh, A. M. (2009). Corporate governance from the Islamic perspective: A comparative analysis with OECD principles. *Critical Perspectives on accounting*, 20(5), 556-567.
- Achim, M.-V., & Borlea, S. N. (2015). Developing of ESG score to assess the non-financial performances in Romanian companies. *Procedia Economics and Finance*, 32, 1209–1224.

- Ahi, P., & Searcy, C. (2015). Assessing sustainability in the supply chain: A triple bottom line approach. *Applied Mathematical Modelling*, 39, 2882–2896.
- Akram, T., Farooq, M. U., Akram, H., Ahad, A., & Numan, M. (2021). The Impact of firm size on profitability – a study on the top 10 cement companies of Pakistan. *Jurnal Aplikasi Manajemen, Ekonomi Dan Bisnis*, 6(1), 14–24.
- Alareeni, B., & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance: The International Journal of Business in Society*, 20(7), 1409–1428.
- Alsayegh, M. F., Abdul Rahamn, R., & Homayoun, S. (2020). Corporate Economic, Environmental, and Social Sustainability Performance Transformation through ESG Disclosure. *Sustainability*, 12(9).
- Armstrong, A. (2020). Ethics and ESG. *Australasian Accounting, Business and Finance Journal*, 14(3), 6–17.
- Ashwin Kumar, N. C., Smith, C., Badis, L., Wang, N., Ambrosy, P., & Tavares, R. (2016). ESG factors and risk-adjusted performance: A new quantitative model. *Journal of Sustainable Finance & Investment*, 6(4), 292–300.
- Atan, R., Razali, F. A., Said, J. & Zainun, S. (2016). Environmental, social and governance (ESG) disclosure and its effect on firm's performance: A comparative study. *International Journal of Economics and Management*, 10(2), 355-375.
- Awaysheh, A., Heron, R. A., Perry, T., & Wilson, J. I. (2020). On the relation between corporate social responsibility and financial performance. *Strategic Management Journal*, 41(6), 965–987.
- Bae, G. K., Lee, S. M., & Luan, B. K. (2023). The impact of ESG on brand trust and word of mouth in food and beverage companies: Focusing on Jeju Island tourists. *Sustainability*, 15(3), 2348.
- Billio, M., Costola, M., Hristova, I., Latino, C., & Plizzon, L. (2021). Inside the ESG ratings: (Dis)agreement and performance. *Corporate Social Responsibility and Environmental Management*, 28(5), 1426-1445.
- Bostwick, S., Chesebrough, D., Feller, E., & Miller, A. (2015). Model guidance on reporting ESG information to investors. *Sustainable Stock Exchanges*. <https://sseinitiative.org/wp-content/uploads/2015/09/SSE-Model-Guidance-on-Reporting-ESG.pdf>.
- Brickson, S. L. (2007). Organizational identity orientation: The genesis of the role of the firm and distinct forms of social value. *Academy of Management Review*, 32(3), 864–888.
- Brooks, C., & Oikonomou, I. (2018). The effects of environmental, social and governance disclosures and performance on firm value: A review of the literature in accounting and finance. *The British Accounting Review*, 50(1), 1–15.
- Bhayangkara, D. P. (2023). Functionally public accountability, management control systems and organizational culture to increase organizational performances. *Insight Journal*, 10(1), 40–58.
- Campbell, J. L. (2007). *Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility*, 32(3), 946–967.
- Camilleri, M. A. (2015). Environmental, social and governance disclosures in Europe. *Sustainability Accounting, Management and Policy Journal*, 6(2), 224-242.
- Caputo, F., Pizzi, S., Ligorio, L., & Leopizzi, R. (2021). Enhancing environmental information transparency through corporate social responsibility reporting regulation. *Business Strategy and the Environment*, 30(8), 3470-3484.
- Christensen, J., Kent, P., & Stewart, J. (2010). Corporate Governance and Company Performance in Australia. *Australian Accounting Review*, 20(4), 372–386.
- Duque-Grisales, E., & Aguilera-Caracuel, J. (2021). Environmental, Social and Governance (ESG) Scores and Financial Performance of Multilatinas: Moderating Effects of Geographic International Diversification and Financial Slack. *Journal of Business Ethics*, 168, 315–334.

- Duuren, E. van, Plantinga, A., & Scholtens, B. (2016). ESG Integration and the Investment Management Process: Fundamental Investing Reinvented. *Journal of Business Ethics*, 138, 525–533.
- Edmans, A. (2011). Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial Economics*, 101(3), 621–640.
- Elkington, J. (2018). 25 years ago i coined the phrase “triple bottom line.” here’s why it’s time to rethink *It*. *Harvard Business Review*. <https://hbr.org/2018/06/25-years-ago-i-coined-the-phrase-triple-bottom-line-heres-why-im-giving-up-on-it>.
- Fu, L., Singhal, R., & Parkash, M. (2016). Tobin's q ratio and firm performance. *International Research Journal of Applied Finance*, 7(4), 1-10.
- Hidayana, N., Noor, M., Fazillah, T. M., & Jamaludin, N. A. (2023). Corporate Social Responsibility (CSR) Disclosure and Corporate Reputation of Malaysian Bank: Adapting the Bursa Malaysia’s Framework. *Insight Journal*, 10(1), 298–311.
- Husted, B. W., & Sousa-Filho, J. M. de. (2017). The impact of sustainability governance, country stakeholder orientation, and country risk on environmental, social, and governance performance. *Journal of Cleaner Production*, 155, 93–102.
- Klettner, A., Clarke, T., & Boersma, M. (2014). The governance of corporate sustainability: Empirical insights into the development, leadership, and implementation of responsible business strategy. *Journal of business ethics*, 122, 145-165.
- Klinger, S., Bayne, K. M., Yao, R. T., & Payn, T. (2022). Credence Attributes in the Forestry Sector and the Role of Environmental, Social and Governance (ESG) Factors. *Forests*, 13(3), 432.
- Kyere, M., & Ausloos, M. (2020). Corporate governance and firm financial performance in the United Kingdom. *International Journal of Finance & Economics*, 26(2), 1871–1885.
- Law, A. (2016). Sustainability reporting. *Crowe Horwath*. <https://www.crowe.com/my/-/media/crowe/firms/asia-pacific/my/crowemy/insights/sustainability-reporting.pdf?rev=1d3a070a9fc342d08126d7fe9f75971b&hash=2304A259CB23AB6770EC762A32DD2965>.
- Lee, L.-E., Giese, G., & Zoltán, N. (2020). Combining E, S, and G Scores: An exploration of alternative weighting schemes. *The Journal of Impact and ESG Investing*, 1(1), 94–103.
- Li, Y., Gong, M., Zhang, X.-Y., & Koh, L. (2018). The impact of environmental, social, and governance disclosure on firm value: The role of CEO power. *The British Accounting Review*, 50(1), 60–75.
- Macassa, G., Rashid, M., Rambaree, B. B., & Chowdhury, E. H. (2022). Corporate social responsibility reporting for stakeholders’ health and wellbeing in the food and beverage industry: A case study of a multinational company. *Sustainability*, 14(9), 4879.
- Machado, B. A. A., Dias, L. C. P., & Fonseca, A. (2021). Transparency of materiality analysis in GRI-based sustainability reports. *Corporate Social Responsibility and Environmental Management*, 28(2), 570-580.
- Malaysian Code on Corporate Governance. (2021). Securities Commission Malaysia.
- Matten, D., & Moon, J. (2008). “Implicit” and “Explicit” CSR: A conceptual framework for a comparative understanding of corporate social responsibility. *Academy of Management*, 33(2), 404–424.
- Md Nor, N., Shaiful Bahari, N. A., Adnan, N. A., Sheh Kamal, S. M. Q. A., & Mohd Ali, I. (2016). The effects of environmental disclosure on financial performance in Malaysia. *Procedia Economics and Finance*, 35, 117–126.
- MIDA. (2021, October 12). Manufacturing most affected industrial sector hit by Covid-19: MITI. *MIDA*. <https://www.mida.gov.my/mida-news/manufacturing-most-affected-industrial-sector-hit-by-covid-19-miti/>.
- Mohamad, N. E. A. B. (2020). Do environmental, social, and governance practices (ESG) signify firm value? evidence from FTSE4Good Bursa Malaysia (F4GBM). *Global Business and Management Research: An International Journal*, 12(4), 365–376.

- Nielsen, B. B., & Raswanta, A. (2018). The selection, use, and reporting of control variables in international business research: A review and recommendations. *Journal of World Business*, 53(6), 958–968.
- Parmar, B. L., Freeman, R. E., Harrison, J. S., Wicks, A. C., De Colle, S., & Purnell, L. (2010). Stakeholder Theory: The State of the Art. *The Academy of Management Annals*, 4(1), 403–445.
- Qiu, Y., Shaukat, A., & Tharyan, R. (2016). Environmental and social disclosures: Link with corporate financial performance. *The British Accounting Review*, 48(1), 102–116.
- Raja Ahmad. R. A., Palaniappan, T., & Azmi, N. A. (2023). Environmental, Social, and Governance (ESG) Disclosure and Firms Financial Indicators: Analysis of Semiconductor Industry. *Insight Journal*, 10 (1). 221 – 241.
- Ratsimivoh, K., & Haalebos, R. (2021). ESG scores and beyond. FTSE Russell. https://content.ftserussell.com/sites/default/files/esg_scores_and_beyond-part_2_final.pdf
- Sadiq, M., Singh, J., Raza, M., & Mohamad, S. (2020). The impact of environmental, social and governance index on firm value: Evidence from Malaysia. *International Journal of Energy Economics and Policy*, 10(5), 555–562.
- Saher, K., Zafar, M. F., Siddique, Q. (2023). The impact of Corporate Social Responsibility (CSR) and green investments on sustainable performance: The mediating role of firm financial performance. *Global Economics Review*, 8(1), 59–73.
- Sánchez-Chaparro, T., Soler-Vicén, M. Á., & Gómez-Frías, V. (2022). Be good and look good: Communicating the triple bottom line through corporate websites. *Journal of Business Research*, 144, 136–145.
- Sarumpaet, S. (2005). The relationship between environmental performance and financial performance of Indonesian companies. *Jurnal Akuntansi Dan Keuangan*, 7(2), 89–98.
- Sila, I., & Cek, K. (2017). The impact of environmental, social and governance dimensions of corporate social responsibility on economic performance: Australian evidence. *Procedia Computer Science*, 120(2017), 797–804.
- Slaper, T. F., & Hall, T. J. (2011). The triple bottom line: What is it and how does it work? *Indiana Business Review*, 86(1), 4–8.
- Stefanescua, C. A., Oprisora, T., Sntejudeanua, M. A., Oprisor, T., & Sntejudeanu, M. A. (2016). An original assessment tool for transparency in the public sector based on the integrated reporting approach. *Accounting and Management Information Systems*, 15(3), 542 – 564.
- Tamimi, N., & Sebastianelli, R. (2017). Transparency among S&P 500 companies: An analysis of ESG disclosure scores. *Management Decision*, 55(8), 1660–1680.
- UN. (2015). *Sustainable Development Goals kick off with start of new year*. <https://www.un.org/sustainabledevelopment/blog/2015/12/sustainable-development-goals-kick-off-with-start-of-new-year/>.
- Wan Muhammad, W. M., & Wasiuzzaman, S. (2021). Environmental, Social and Governance (ESG) disclosure, competitive advantage, and performance of firms in Malaysia. *Cleaner Environmental Systems*, 2, 1–11.
- Weber, O., & Saunders-Hogberg, G. (2018). Water management and corporate social performance in the food and beverage industry. *Journal of cleaner production*, 195, 963–977.
- Yahya, A., & Hidayat, S. (2020). The influence of current ratio, Total debt to total assets, total assets turn over, and return on assets on earnings persistence in automotive companies. *Journal of Accounting Auditing and Business*, 3(1), 62–72.
- Yoo, S., & Managi, S. (2022). Disclosure or action: evaluating ESG behavior towards financial performance. *Finance Research Letters*, 44.
- Yoon, B., & Chung, Y. (2018). The effects of corporate social responsibility on firm performance: A stakeholder approach. *Journal of Hospitality and Tourism Management*, 37, 89–96.

Zhou, D., & Zhou, R. (2021). ESG performance and stock price volatility in public health crisis: evidence from COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 19(1), 202.