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A Literature Review on ESG Score and Its Impact on Firm Performance

Sunarti Halid[1], Rahayu Abdul Rahman[2], Radziah Mahmud[3], Nooriha Mansor[4], Roslan Abdul Wahab[5]
[1,2,4,5]Faculty of Accountancy, Universiti Teknologi MARA, Perak Branch, Tapah Campus, 35400, Tapah Road, Perak, Malaysia, [3]Faculty of Accountancy, Universiti Teknologi MARA, Selangor Branch, Puncak Alam Campus, 42300, Puncak Alam, Selangor, Malaysia
Corresponding Author's Email: sunar892@uitm.edu.my

Abstract
Research covering Environmental, Social, and Governance (hereafter ESG) and financial performance often suffers from inconsistent terminology and jargon. ESG refers to companies and investors incorporating environmental, social, and governance issues into their business. Meanwhile, the ESG score is an innovative method of evaluating a company's activities. The ESG score focuses not on financial reporting, which investors and managers are accustomed to using when making decisions, but on statements on the corporation's influence on the underlying pillars of the score. Stakeholders and fund managers believe that firms with high ESG scores yield better operating performance, higher returns, and lower firm-specific risk. But still, abundant inconclusive evidence attracts sustainability scholars to fill concerning sustainability disclosure and performance. Therefore, this paper examines the need for overall ESG scores and their impact on the firm performance of listed companies. It shows that there are both positive and negative relationships between ESG scores and firm performance. The author intends to continue research by formulating the hypotheses for analysing the influence of overall ESG scores on firm performance and proposing a model for analysing this correlation. The findings of this study will be helpful to investors, policymakers, and other related agencies and widen the scope of literature to examine the impact of overall ESG scores on their accounting performance (ROA and ROE) and market valuation (Market Capitalisation).
Keywords: Environmental, Social, and Governance (ESG), ESG Score, Firm Performance, Market Capitalisation, ROA, ROE

Introduction

Environmental, Social, and Governance (hereafter ESG) reporting provides investors with a way to identify and understand critical issues that aren't typically accounted for on a traditional balance sheet yet have a crucial impact on a company's risks and opportunities. Investors are increasingly adopting ESG, which will continue to become embedded in corporate strategies. Investors request new tools to evaluate companies' performance from an ESG perspective as the ESG market grows. Although reporting an ESG indicator is not mandatory in annual company statements, more companies are reporting their progress in terms of corporate sustainability (Serban et al., 2022). However, ESG substantially limits investors' options because companies perform well in terms of stock market price but act against the practices supported by the ESG framework (Serban et al., 2022). According to Serban et al (2022), the ESG indicator's objective is to highlight that these practices lead to superior company performance beyond ethical concerns.

For now, the ongoing discussion on the link between ESG and financial performance remains unresolved due to a lack of clear evidence and consensus among researchers. While some research represents a negative connection between ESG and financial performances, others show a catalytic effect (i.e., positive) or no effect. As a result, there is some disagreement over the direction in which financial success is linked to environmental, social, and governance outcomes. Hence, this paper aims to fill the literature gap by examining the importance of ESG scores and their impact on firm performance. The author proposes a conceptual paper to provide a framework for investigating the practices of ESG, enhancing the theories, and determining the long-term effect of ESG scores on firm performance. It portrays positive and negative relationships between ESG scores and the performance of the companies. The paper contributes to the literature on ESG data quality, ESG scores' reliability, and whether ESG data can accurately reveal a firm's financial performance. Data quality has vital implications for rating agencies and investors, companies, and researchers to improve their awareness of the impact of ESG scores on firm performance. Investors can use the information in their business research and valuation tools when ESG indicators appropriately reflect a firm's performance on ESG concerns. Businesses can incorporate sustainability initiatives into their operational procedures and investment plans; researchers will be better able to identify links between ESG measurements and financial performance.

This article is organised as follows. The authors first present an overview of relevant literature on the relationship between ESG scores and firm performance and develop the conceptual framework. Meanwhile, in the last section, the conclusion presents the main contribution and consequences of the findings of this paper.

Literature Review

Importance of Environmental, Social, and Governance (ESG)

Investors have become more interested in companies that operate with the principles of the ESG because compliance with the ESG principles is much more sustainable, have more resources for development in the long term, spend time optimising their activities, and have better financial performance (Egorova et al., 2022). Due to that concern, the United Nations Principles for Responsible Investment (hereafter PRI) promotes incorporating ESG factors into investment decision-making, encouraging investors to take greater responsibility for their investments. A framework like PRI helps investors comprehend sustainable investments and make more responsible judgments. Through involvement, best practices sharing, and learning, PRI supports a network of international investor signatories striving to include ESG concerns in their investment and ownership decisions.

Apart from that, several companies have been willing to integrate ESG practices into different fields of their business (Landi et al., 2022). In practice, management consulting firms and investors widely use ESG scores as a significant index to understand a firm's overall corporate social responsibility (hereafter CSR) performance. ESG essentially evaluates a firm's environmental, social, and corporate governance practices and combines the performances of these practices (Gillan et al., 2021). Despite the relatively late appearance of the concept of ESG, studies on the association between ESG and firm value or financial performance are abundant (Miralles-Quirós et al., 2018; Han & Yu, 2016).

In a nutshell, ESG indicators are non-financial factors that have become increasingly important and popular among investors (Serban et al., 2022). Furthermore, these academics and industry experts have employed a variety of terms within the category of ESG; however, regardless of whether the word is Socially Responsible Investing (hereafter SRI), Corporate Social Performance (hereafter CSP), or ESG, the studies assess sustainability by measuring roughly the same metrics. ESG reporting also impacts a company's financial and environmental performance. Weber (2014) examines the ESG reporting of China's Top 100 green companies and indicates that excellent ESG reporting contributes to higher financial returns and corporate environmental performance. According to Chen et al. (2015), Human Rights, Society, and Product Responsibility have a strong and positive link with the return on equity. Despite the increased availability of ESG information, ESG reporting remains insufficient for non-financial analysis.

Refinitiv Eikon Datastream (ESG scores)
ESG rating agencies are independent businesses with a focus on ESG scores. Many rating agencies offer ESG scores, but some of the more well-known ones are Bloomberg ESG Data Services, Dow Jones Sustainability Index, MSCI ESG Research, Sustainalytics, Refinitiv Eikon Datastream (previously Thomson Reuters Eikon), S&P Global, ISS ESG, Vigeo/EIRIS, Fitch Ratings, and Moody's Investors Service.

The Refinitiv database's ESG score has been widely used in academic publications (Reber et al., 2022; Shakil, 2021). Investors can compare a company's performance to its competitors in its industry and businesses from other sectors by assigning an ESG score ranging from 0 to 100. Companies with high ESG scores may be more attractive to investors because they share the company's values or believe it is sufficiently protected from future risks brought on by pollution or bad corporate governance. An investor worried about ESG may avoid a company with a lower ESG score.

In addition, this ESG data provider offers the best global coverage compared to other ESG rating providers. Over 630 company-level ESG metrics are captured and calculated by Refinitiv. A subset of 186 of the most relevant and similar variables for each industry power the overall business evaluation and scoring (Refinitiv, 2021). These are categorised into ten areas that reformulate the three pillar scores and the final ESG score, reflecting the company's ESG performance, commitment, and effectiveness based on information that has been made publicly available (Refinitiv, 2021). Three pillars-environmental, social, and corporate governance are used to group the category ratings, and their weights are standardised.

Measures of Financial Performance
Although the body of empirical literature on a company link's ESG and financial performance is vast, it remains inconclusive. Studies report positive, negative, and neutral relationships between ESG and a company's financial performance. Due to that, prior studies that

investigate the relationship between ESG scores and success have utilised the following metrics: stock returns (e.g., Brammer et al., 2006), return on assets (ROA) (e.g., Xie et al. 2019), and return on equity (ROE) (e.g., Atan et al., 2018). Griffin and Mahon (1997) report that 80 performance metrics were employed in the surveyed literature, despite the study being a little dated (51 research studies). Firm size, ROE, and ROA are three of the eighty most frequently utilised measures. Despite adopting ROA as the most prevalent accounting metric, Velte (2017) underlines the value of using market-based accounting metrics as a proxy for financial performance. He conducted his investigation using Tobin's Q and this metric. Several other researchers, like Atan et al (2018); Dalal and Thaker (2019), also employ the same two variables. However, the authors of this paper considered the value of a company to be given by market capitalisation for the following rationale: if investors guide their investments in company shares by applying investing principles, then the impact of investment decisions influences the market price of shares and, consequently, a company's market capitalisation. In previous literature and practical approaches, market capitalisation is considered a metric for establishing the value of a company from a market perspective (Serban et al., 2022).

Relationship between ESG Scores and Firm Performance

ESG is becoming a part of the firm's non-financial indicators, including sustainability, ethics, and corporate governance issues. Therefore, companies spend increasing emphasis on improving and publishing their ESG ratings. The environmental, social, and governance pillars of the ESG score are each divided into several categories. The company's success in terms of sustainability is represented by the ESG score, which is the average of all assessment ratings for each pillar. Based on data that has been made publicly available, the ESG score evaluates the company's efficiency and performance. The company performs more sustainably when its ESG score is greater (Melinda & Wardhani, 2020).

There has been a considerable amount of prior research related to ESG. Plumlee et al (2015) studied the relationship between voluntary disclosure and the company's value. The research uses companies in the United States. The study's results found that disclosure significantly positively affected firm value. The study also found that the effective future cash flow component was significantly related to disclosure quality. From 2001 to 2006, Lima Crisóstomo et al (2011) investigated the connection between CSR, firm value, and the financial performance of Brazilian corporations. The results indicate that CSR is value-destroying in Brazil since a significant negative correlation between CSR and firm value was found. Additionally, a neutral relationship characterises the mutual effect between CSR and financial accounting performance.

Deswanto and Siregar (2018) used a sample of 211 companies listed on the Indonesian stock exchange between 2012-2014 to investigate the connections between environmental information disclosure and financial performance, environmental performance, and corporate value. According to the study's findings, financial performance is unaffected by environmental disclosure. Additionally, research demonstrates that environmental performance positively impacts environmental information disclosure. However, disclosure of environmental information has no impact on company value and does not mediate the relationship between the effects of financial performance and environmental performance on firm value. Setiadi and Suhardjanto (2017) find a considerable beneficial effect of environmental disclosure on business value in the Indonesian context. Malarvizhi and Matta

(2016) investigated the relationship between environmental disclosure and corporate performance in India. They also discover no association between the extent of environmental disclosure and corporate performance. Their findings suggest that corporations share environmental information regardless of financial performance to sustain the global ecosystem. Another study by Haninun et al (2018) found that environmental performance and disclosure positively affect financial performance.

Among all the studies, much of the extant literature has focused on the impact of ESG disclosure on firm performance or on how a single pillar of ESG affects firm performance. As far as specific contexts are concerned, what emerges is looking at previous studies focusing on the relationship between ESG and firm performance, but the results remain inconclusive (Orlitzky et al., 2003). Many studies show a positive relationship (Pham et al., 2022; Kim & Li, 2021; Zhao et al., 2018), while others show a negative (Velte, 2017; Lee et al., 2009) or neutral (Junius et al., 2020; Atan et al., 2018) relationship. The scarce focus on the firm performance tested through accounting-based measures and the lack of alignment of the results is apparent even in more extensive studies covering several years of data.

An overview of the mixed empirical findings is presented in Table 1.

Table 1
Review of Empirical Literature

Authors (Year)	**ESG Measure**	**Performance Measure**	**Country**	**Findings**
Pulino et al (2022)	ESG Score Environmental Score Social Score Governance Score (Refinitiv)	EBIT, ROA	Italian	Positive
Koundouri et al (2021)	STOXX Europe ESG Leaders 50 index (Sustainalytics)	ROA, ROE, Profit margins	Europe	Positive
Kaiser (2020)	ESG (Refinitiv)	Risk-adjusted return	Europe, U.S.	Positive
Shabbir et al (2020)	ESG Disclosure Score ENV Disclosure Score SOC Disclosure Score GOV Disclosure Score (Annual Published Reports)	ROA, ROC, Excess stock returns	Pakistani	Positive
Duque-Grisales & Aguilera-Caracuel (2019)	ESG Score E Score S Score G Score (Thomson Reuters' Asset4 database)	ROA	Brazil, Chile, Colombia, Mexico, and Peru	Negative

Xie et al (2019)	ESG disclosure score (Bloomberg)	Corporate efficiency (Revenue earned, ROA)	International (74 countries)	Positive
Atan et al (2018)	ESG (Bloomberg)	ROE, Tobin's Q, WACC	Malaysia	Neutral
Zhao et al (2018)	ESG performance index	ROCE as financial performance indicator & Debt to Equity ratio	China	Positive
Velte (2017)	ESG rating (Thomson Reuters Datastream)	ROA, Tobin's Q	Germany	Positive Neutral
Wang & Sarkis (2017)	ESG (Bloomberg)	ROA, Tobin's Q	The U.S.	Positive
Brammer et al (2006)	ESG scores (EIRIS Sustainability Ratings)	Stock returns	The U.K.	Negative

Source: Created by authors for the purpose of the study

The Conceptual Framework

An analysis of existing studies showed that the link between ESG and company value is uncertain (Kim & Oh, 2019) because it is influenced by how a company's value is measured and the fact that ESG investing practices among investors are still in their infancy (Serban et al., 2022). Their studies focus on or isolate a single dimension of ESG. Since the ESG score is based on a company's performance in the environment (E), social (S) and governance (G) sub-factors in equal proportion, a company can participate in individual E, S and G activities at different levels. However, limited ESG research studies on all three environmental, social, and governance dimensions in a single setting (Zuraida et al., 2016). Therefore, this article examines the need for overall ESG scores and their impact on the firm performance of listed companies.

Figure 1 shows the conceptual framework of this study. This conceptual framework demonstrates the relationship between one independent variable (ESG score) and three dependent variables (ROA, ROE, and Market Capitalisation) as a proxy for firm performance.

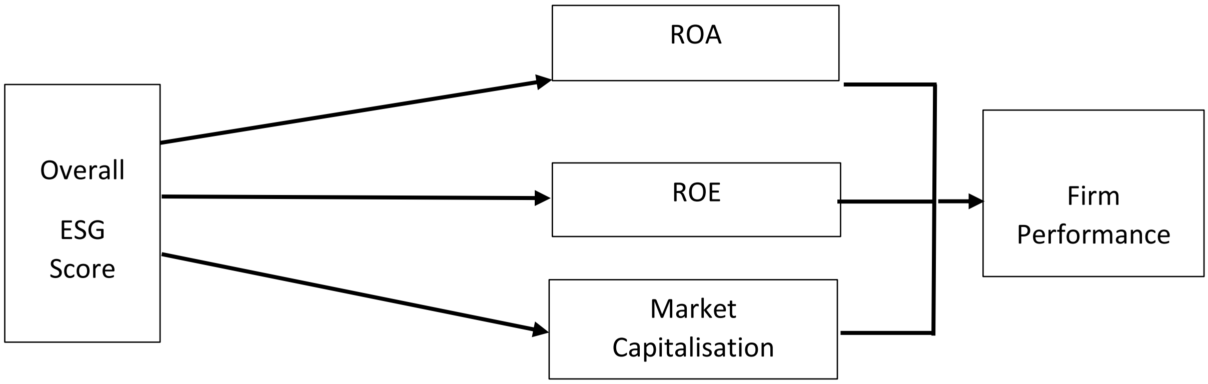

Figure 1
Conceptual Framework

The model is based on stakeholder theory, first proposed by R. Edward Freeman in 1984, which inspired the creation of the sustainability report and the ESG (Velte, 2017). According to the stakeholder theory, for management to succeed, they must have a positive relationship with their stakeholders. More specifically, Freeman (2010) defined a stakeholder as any person or entity that can influence an organisation's performance or that organisation's successes impact. The good governance approach, commonly referred to as a stakeholder theory, encourages stakeholder-oriented management that considers all stakeholders and maximises value through CSR governance and ESG activities. Stakeholders, particularly investors, have increased their use of ESG data in recent years. Companies are conscious that ESG disclosure is essential to projecting a positive reputation and image to their stakeholders as they take on environmental challenges (Tarmuji et al., 2016).

Hill and Jones (1992) elaborate on how the management of stakeholder relationships might act as a monitoring tool to help managers focus on financial goals (Orlistzky et al., 2016). Due to that, the stakeholder theory is more dominant as most studies show a positive relationship between a company's ESG performance and financial performance. As described in the literature review, the stakeholder theory assumes superior financial performance for companies that successfully integrate ESG activities into their business operations. Based on this theory, stakeholders' satisfaction is pivotal to achieving good financial performance.

Conclusion
ESG reporting is a way to communicate with stakeholders, such as shareholders, investors, employees, clients, and committees, and to achieve transparency about a company's performance. The study's findings will add significantly to what is already known about the impact of ESG variables on business success in the body of empirical work.

Second, this study adds to our understanding of whether or not ESG aspects contribute to the organisation's enhanced operational and financial performance. This research employed two accounting-based indicators (e.g., ROA and ROE) and one market valuation indicator (e.g., Market Capitalisation) to determine a firm's financial success and draw conclusions about its future.

Last but least, the new research also looks at the most important ESG factors that affect financial success. Due to a lack of conclusive data and agreement among scholars, the ongoing debate regarding the relationship between ESG and the financial performance of the companies remained unsolved. Others show a positive or no effect, while some study suggests a negative relationship between ESG and financial results. Therefore, the direction in which financial performance is linked to ESG outcomes is a topic of debate.

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