

A Structured Literature Review of the Impact of ESG Activities on Firm Performance

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ABSTRACT: The purpose of this paper is to review empirical studies on the impact of ESG (Environmental, Social, and Governance) activities on firm performance. After nearly two decades of its initial formal proposal in 2004 by United Nation's Principles for Responsible Investment, significant advances can be observed regarding progress on ESG activities in different regions worldwide. The existing literature has numerous debates about the relationship between ESG activities and financial performance with heterogeneous results. A growing body of empirical literature has evaluated positive implications of ESG activities on firm performance, while other studies indicate a negative relationship. This study aims to investigate this discrepancy by accumulating knowledge from ESG-related literature and uncover the discourse on ESG. Consequently, this research provides different views and contributes to a better understanding of the ESG concept. In particular, due to recent regulatory initiatives by the European Union, such as the European Taxonomy and additional disclosure requirements, the focus of this study is on the data conducted on European companies.

KEYWORDS: ESG, firm performance, European firms, literature review

Introduction

Environmental, Social, and Governance (ESG) activities have emerged as a prevalent and significant topic of our time, calling the attention of governments, businesses, and individuals worldwide. As evidence of the risks

associated with climate change continues to mount, companies face growing pressure from the public to incorporate ESG into their business practices (McKinsey 2022). Kolk and Van Tulder (2010) argue that Multinational enterprises (MNEs) have gained increasing recognition to contribute not only to the problem but potentially to the solution of corporate social responsibility actions and the implications of international business for sustainable development, both in their home and host countries.

ESG is a metric that assesses and grades a company's environmental, social, and governance activities across three dimensions and refers to a set of non-financial indicators used to evaluate a company's sustainability and ethical impact. In 2004, the United Nations published a report entitled "*Who Cares Wins*" (The Global Compact 2004) which is widely recognized as the first significant reference to ESG in the current context and emphasizes the importance of all business stakeholders embracing ESG practices for the long term, including managers, directors, investors, analysts, and brokers. These developments coincided with a growing international focus on sustainability, workplace respect, and diversity, and public campaigns on these issues have continued to gain momentum.

From one perspective based on stock markets, the increases in socially responsible assets have been exponential over the previous decade, and they account for nearly a third of professional investments (Ferrat et al. 2022). From a second perspective, based on regulatory bodies and policymakers, especially concerning the disclosure of ESG information by companies, regulations have been growing worldwide over the past decade. (KPMG 2023 and Krasodomska et al. 2021). Especially in the European Union (hereafter EU), the Non-Financial Reporting Directive (NFRD) regarding the disclosure of non-financial information and diversity information has been adopted (European Commission 2021).

In this regard, the relationship between Environmental, Social, and Governance activities and financial performance has been a topic of increasing interest among investors, policymakers, and academics. The idea behind ESG is that companies that focus on these factors are more likely to be successful in the long run, as they are better able to manage risks and take advantage of opportunities. This literature review aims to provide an overview of the current state of research and synthesize it into a solid summary on the

implications of ESG on financial performance. The review will examine the methods used to measure ESG activities and the findings of the status-quo empirical studies on the impact of ESG on financial performance. The review will also discuss the limitations of existing research and identify areas for future research.

Measuring ESG Activities

Several methods are used to measure ESG performance, including ESG ratings and ESG indices. ESG ratings are companies' scores based on their performance in environmental, social, and governance activities. The ESG rating dominantly used in the academic literature are provided by third-party organizations such as MSCI (Ruan and Liu 2021), Bloomberg (Xie et al. 2019; Wang & Sarkis 2017), or Refinitiv (Kaiser 2020; Abdi 2021). The ESG metrics from the provider Refinitiv are illustrated in Figure 1.

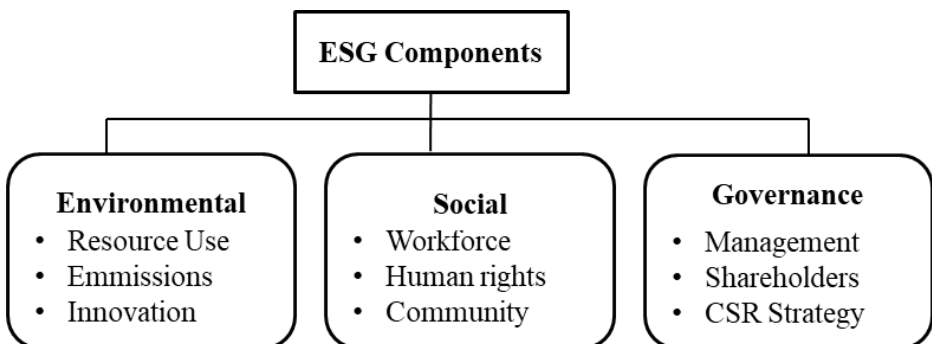


Figure 1. Refinitiv ESG Metrics

Companies are selected based on their ESG ratings and are included in the index if they meet certain criteria (Refinitiv 2022). Some companies report their own ESG performance through sustainability reports or other public disclosures (Nga and Rezaeeb 2015).

Impact of ESG on Financial Performance

Several studies have examined the impact of ESG on financial performance. Even though there exist heterogeneous results, the majority of these studies have found a positive relationship between ESG activities and financial performance. For example, a study by Eccles and Serafeim (2014) found

that companies with high ESG ratings outperformed those with low ESG ratings in terms of financial performance. The study analyzed data from 180 companies over an 18-year period and found that companies with high ESG ratings had higher return on assets (ROA) and return on equity (ROE) than those with low ESG ratings.

Similarly, a study by Friede et al. (2015) analyzed data from over 2,000 companies and found that companies with high ESG ratings had higher stock returns and lower volatility than those with low ESG ratings. The study also found that the relationship between ESG and financial performance was stronger in emerging markets than in developed markets. Another study by Khan et al. (2016) examined the impact of ESG performance on credit risk. The study analyzed data from over 1,600 companies and found that companies with high ESG ratings had lower credit risk than those with low ESG ratings. The study also found that the relationship between ESG and credit risk was stronger for companies in industries with high environmental and social risks.

Many companies are raising their implementation of ESG activities. Huang (2021) investigated the link between ESG and financial performance. Twenty studies published between 1980 to 2019 were obtained from databases such as Web of Science and evaluated. The results indicated a positive link between ESG and financial productivity. The connection was stronger for economic productivity linked to firms' market and accounting areas.

ESG disclosure usually creates a competitive advantage for companies. Mohammad and Wasiuzzaman (2021) investigated the impact of ESG disclosure on firm productivity, which is mediated by competitive advantage. The sample consisted of 660 companies listed on Bursa Malaysia from 2012 to 2017. The results displayed that ESG disclosure improved financial productivity. For instance, raising ESG disclosure by one unit boosted productivity by four percent. US companies tend to implement ESG due to increasing investor demand for social responsibility. Nguyen et al. (2022) examined the effect of ESG activities on financial productivity. The sample consisted of 56 US non-monetary companies in the S&P 500 from 2018 to 2020. The methodology involved the use of the two-stage Least Squares technique. The results highlighted that ESG improved firm productivity based on three ratios: Tobin's Q, return on assets (ROA), and return on equity

(ROE). ESG activity had a more substantial impact on Tobin's Q than on ROA and ROE. The latter two variables could be improved in the long term through ESG.

There is a need to evaluate ESG productivity in emerging countries. Junius et al. (2020) assessed the effect of ESG performance on company productivity with a sample that entailed 270 companies from Indonesia, Thailand, Singapore, and Malaysia between 2013 and 2017. Multiple regression and descriptive tests were conducted using ESG score as the dependent variable. Meanwhile, the price-earnings ratio, ROE, ROE, and Tobin's Q were self-reliant variables. The company size, age, and sector were used as regulating values. The outcomes depicted that the ESG score did not considerably impact company productivity. The limitations were that few companies had the ESG scores.

ESG can influence financial ratios such as ROE. Triyani et al. (2020) examined the influence of ESG on company productivity based on ROE. The impact of CEO tenure on this association was also studied. The sample encompassed 158 public corporations in Indonesia from 2012 to 2016. Multiple regression evaluated the links between values. The results illustrated that ESG disclosure had a positive influence on ROE. On the other hand, CEO tenure decreased the strength of the connection between ESG and ROE.

Especially in Europe, there is a dynamic shift toward ESG activities. De Lucia et al. (2020) examined the association between ROA and ROE on ESG. The sample entailed 1030 public companies from Europe between 2018 and 2019. Machine learning and regression were used in the methodology. The results indicated a positive link between financial metrics such as ROA and ROE with ESG. The link is strengthened when firms invest in policies such as environmental innovation.

Firms have an increase in reputation when they implement ESG reporting. European firms are supposed to report non-financial data on tackling environmental problems. Koundouri et al. (2021) evaluated the interconnection between ESG and financial productivity. The sample consisted of 50 European firms with a high ESG achievement (STOXX Europe Leaders 50 Index). These firms were from sectors such as automobiles and manufacturing. The ESG reporting of these companies was evaluated. The findings showed that firms implementing ESG had better profitability,

such as ROA and ROE. ESG has been implemented due to the demand for transparency. Buallay (2018) evaluated the association between ESG and a bank’s financial productivity with the productivity measures consisting of ROE, ROA, and Tobin’s Q. The sample entailed 235 European banks from 2007 to 2016. ESG was used as the self-reliant variable, while financial productivity was the reliant variable. Control measures included the type of bank and external factors. The results portrayed that ESG considerably impacted company productivity. ESG positively impacted ROA and Tobin’s Q.

In addition to these studies, there have been numerous other empirical studies that have found a positive relationship between ESG and financial performance. However, there have also been some studies that have found negative, mixed or inconclusive results. For example, a study by Statman et al. (2016) found that while companies with high ESG scores had higher returns than those with low ESG scores, this relationship was not statistically significant after controlling for other factors such as size and industry. An overview of the current literature review with their respective positive, mixed, negative, or neutral findings is illustrated in Table 1.

Table 1. Overview literature review

| Author (s) | Sample | Years | Findings | Factors |
|----------------------------------|---|-------------|---|----------------------------|
| Verga Matos et al. (2020) | Stoxx Europe 600 index firms | 2000 - 2019 | Positive: The results indicate that more sustainable firms exhibit a more stable dividend payout. | Dividend policy |
| Nguyen et al. (2022) | 57 U.S. non-financial firms belonging to the S&P 500. | 2018 - 2020 | Positive: the magnitude of the influence of the ESG practice on Tobin’s Q is significantly higher than that of the ESG-ROA and ESG-ROE relations. | ROA, ROE, and Tobin’s Q |
| Chong et al. (2018) | 290 firm-year observations from Malaysia | 2010 - 2014 | Positive: ESG practices improve firms’ performance and has no effect on firms’ risk taking. | Financial performance |
| Mohammad and Wasiuz-zaman (2021) | 661 firms listed in the Bursa Malaysia | 2012 - 2017 | Positive: ESG disclosure improves firm performance even after controlling for competitive advantage. | Firm competitive advantage |

| | | | | |
|-------------------------------|---|-------------|---|--|
| Arayssi and Jizi (2019) | 67 firms from the MENA region | 2012 - 2016 | Positive: ESG activities in Mena region improves firm's profitability ratios | Financial performance |
| De Lucia et al. (2020) | public European enterprises | 2018 - 2019 | Positive: The results are in support of a relationship between the ESG variables and the financial performances of ROE and ROA. | ROA, ROE |
| Velte (2017) | 412 firm years observation | 2010 - 2014 | Positive / Neutral: ESG has a positive impact on ROA but no impact on Tobin's Q. | ROA, Tobin's Q |
| Miralles-Quirós et al. (2018) | Companies in Brazil | 2010 - 2015 | Mixed: The market does not significantly value the three ESG pillars. | Book-to-value per share and earnings per share |
| Pulino et al. (2022) | largest Italian listed companies | 2011 - 2020 | Mixed: Positive relationship between ESG disclosure and firm performance, measured by EBIT, but a significant negative relation for ROA | ROA, EBIT |
| Abdi et al. (2020) | 38 airlines worldwide | 2013 - 2019 | Mixed: environmental and governance pillars are positively associated, whereas social pillar is negatively associated with both a firm's value and its financial performance. | Market-to-book ratio, Tobin's Q |
| Buallay et al. (2022) | 882 banks from developed and developing countries | 2009 - 2019 | Mixed / positive: ESG improves banks' accounting and market-based performance in developed countries, furthermore ESG weakens banks' performance in developed and developing countries. | Tobin's Q |
| Junius et al. (2020) | 271 listed companies from ASEAN countries | 2013 - 2017 | Neutral: No significant influence from ESG Score and firm performance and market value. | ROA, ROE, and Tobin's Q |

| | | | | |
|---|--|-------------|---|-------------------------|
| Atan et al. (2018) | 54 companies from Malaysia | 2010 - 2013 | Neutral: No significant relationship between individual and combined factors of ESG and ROE, Tobin's Q as well as the weighted average cost of capital. | ROE, Tobin's Q and WACC |
| Duque-Grisales and Aguilera-Caracuel (2018) | 104 multinationals from Brazil, Chile, Colombia, Mexico and Peru | 2012 - 2014 | Negative: The results suggest a negative relationship between the ESG score and financial performance even when it is analyzed separately. | ROA |
| Radhouane et al. (2020) | French companies listed on the SBF120 index | 2015 - 2015 | Negative: Results indicate negative association between ESG and Tobin's Q. | Tobin's Q |
| Ruan and Lui (2021) | state-owned and non-state-owned enterprises | 2015 - 2019 | Negative: corporate ESG activities have a significantly negative impact on firm performance. | Tobin's Q |

Limitations of Existing Research

Despite the growing body of research on the relationship between ESG and financial performance, there are several limitations to existing research. One limitation is the lack of standardization in ESG ratings and indices. Different ESG rating agencies use different methodologies to score companies, which can lead to inconsistencies in results. Similarly, different ESG indices have different criteria for inclusion, which can make it difficult to compare results across indices.

Another limitation is the potential for reverse causality. Companies with strong financial performance may be more likely to focus on ESG factors rather than the other way around. This could lead to a spurious correlation between ESG and financial performance rather than a causal relationship.

There is also the potential for omitted variable bias, where there are other factors affecting both ESG performance and financial performance which are not being accounted for in the analysis. For example, a company's brand reputation or market position may be driving both its financial performance and its ESG performance.

Finally, there is the potential for sample selection bias. A large number of current studies focus on large, publicly traded companies, which may not be representative of the broader. There is also the potential for survivorship bias, where companies that perform poorly on ESG factors may go bankrupt or be acquired, leading to a biased sample of companies in the analysis.

Future Research Directions

Despite the described limitations, the majority of empirical studies have found a positive relationship between ESG and financial performance. However, there is still much to be learned about the mechanisms behind this relationship and the conditions under which it holds. For example, future research could explore whether the relationship between ESG and financial performance varies across different industries or regions. It would also be useful to examine the impact of specific ESG factors, such as climate change or human rights, on financial performance.

There is also a need for more rigorous research designs that can establish causality between ESG and financial performance. Randomized controlled trials or natural experiments may be useful in this regard. Additionally, future research could explore the impact of ESG on long-term financial performance, as many of the studies to date have focused on short-term financial performance.

Another area for future research is the impact of ESG on non-financial outcomes, such as employee satisfaction, customer loyalty, and community engagement. Understanding the broader impact of ESG on stakeholders could help companies make more informed decisions about their ESG strategies.

Finally, there is a need for greater standardization in ESG ratings and indices. This would make it easier to compare results across studies and improve the quality of ESG data for investors and companies.

Conclusion

In conclusion, the majority of empirical studies have found a positive relationship between ESG and financial performance. However, there are limitations to existing research, including the lack of standardization in ESG ratings and indices, the potential for reverse causality, omitted variable bias, sample selection bias, and the need for more rigorous research designs. Future research could explore the impact of ESG on non-financial outcomes, as

well as the mechanisms behind the relationship between ESG and financial performance. Additionally, greater standardization in ESG ratings and indices would improve the quality of ESG data and make it easier to compare results across studies.

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