

The impact of environmental, social, and governance performance on financial performance: Evidence from Japanese companies

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Abstract: This study examines the impact of environmental, social, and governance (ESG) performance on the financial performance of companies using the Stakeholder Theory. Sustainability is recognized as one of the most significant concepts for all nations and organizations worldwide. The Japanese government, its corporations, and its culture are not exempt from delivering their nation's sustainability goal with the utmost support. Their initiatives taken towards sustainability include introducing Society 5.0, the 'improved society' concept Japan has contemplated before the rest of the world. Society 5.0 for Sustainable Development Goals (SDGs), which originated in Japan, is an aspiring concept that views changes and challenges as opportunities and proceeds to associate them with medium-to long-term development, which leads to the resolution of global challenges. Financial performance focuses on accounting performance through the Return on Equity (ROE). The ESG scores and financial data of 351 listed companies in Japan from 2018 to 2022 were collected from the Thomson Reuters Eikon data stream to study its impact. The regression analysis shows that all environmental performance (EP), social performance (SP), and governance performance (GP) positively and significantly affect profitability, or the Return of Equity (ROE). Meanwhile, the control variable, firm size (SIZE), does not support the study. The findings also found that all ESG performances positively correlate with each other. These results highlight the importance of ESG policy adoption by companies to improve their financial performance. The study's contributions add value to Japan's industry practitioners and stakeholders and highlight the importance of ESG to their nation.

Keywords: ESG performance, ESG, Financial performance, ROE, Stakeholders theory.

1. Introduction

Business awareness and commitment to sustainability aspects are now a worldwide marvel. Review from Threlfall, et al. [1] shows a positive trend in sustainability reporting since 2020, with 11 countries including top countries, in Europe and Latin America, in which 70% or more of the top 100 companies focus on SDGs in comparison to 2017. From the same data, three of the top 11 countries originate in the Asia Pacific, namely Japan, Thailand, and Taiwan. Issues about sustainability reporting begin to increase as individuals today become more aware of the detrimental effects of economic activity that may endanger future generations, such as climate change, landslides, and the breakdown of climate and ecosystems; and social issues affecting humans, such as child labor Moellendorf [2].

Pfajfar, et al. [3] stated that businesses should be conducted not only for the purpose of achieving economic objectives or satisfying shareholder expectations but also to pay attention to social and environmental concerns that have a significant impact on businesses' existence, such as employees, government, and society. In this case, the environmental, social, and governance (ESG) concept plays a vital role since it is a component of non-financial performance indicators. According to Courtnell [4] ESG is an explicit criterion set out by legislators, stakeholders, and the ESG reporting organizations.

Wu [5] stated that many businesses around the world already understand the significance of ESG matters. This is because they understand the need to manage the available resources sensibly, treat employees with dignity, and care for their environmental surroundings to achieve long-term development. Luo [6] finds that organizations with higher ESG awareness tend to be more sustainable and transparent, as well as have better worth. This shows that ESG framework can help evade companies with poor operations.

To some extent, ESG is unique as it views issues through the lens of business risk and opportunity for FinSMEs [7]. Delubac [8] also agrees that sustainability reporting ensures that businesses evaluate their risks and allows them to be completely transparent about the prospects they face in their business. This makes ESG one of the crucial means that can be used to ease the risk associated with a company's profitability and fiscal performance [9]. For that reason, this current study aims at examining the impact of ESG performance on corporation's financial performance. Focus was given on the environmental, social, and governance scores to see the relationship between each respective pillar and the profitability of the companies. The findings of this study are anticipated to provide valuable enlightenment on ESG practices to stakeholders.

1.1. Issues and Problem Statement

According to Henisz, et al. [10] ESG scores have the capability to improve an establishment's status among stakeholders like bankers, investors, and regulators. Many investors are starting to really care about the environment and are urging companies to carry out ESG investments to accomplish global sustainability. Due to the increasing awareness of issues related to non-financial factors such as social accountability, the environment, and proper governance, there are higher expectations for companies to increase their efforts and emphasise non-financial aspects of their work [11]. Although ESG pillars are straightforward in theory, fulfillment is tough since there are various features and regulations that are still developing. If sustainability initiatives fail, the consequences might consist of production interruptions, government investigations, penalties, and unfavorable publicity.

Over the past decade, the growing concept of sustainable investing has encouraged various stakeholders, including advocates, to begin practicing sustainability investing. Currently, there are multiple frameworks and standards for measuring ESG performance, such as Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), and the Task Force on Climate-Related Financial Disclosures (TCFD). However, there is no single standard being set for measuring ESG performance, which becomes a problem for investors when they want to compare the ESG factors of different companies since standards used may not be the same. As a matter of fact, there is an estimated total of \$37.9 trillion in sustainability assets available in December 2020, and as per forecasts, they are estimated to reach up to \$53 trillion. From the data collected, more than half of these assets originate from Europe, but the United States has also shown a notable growth in sustainable assets over the last few years. Shin, et al. [12] claim that the financial profit received from engaging in ESG differs depending on the nations' cultural aspects, as shareholder assessments and appreciations for an organization's ESG performance vary across countries.

In Asia, Japan takes the lead due to effective government transformations, demand from local pension funds, and high return expectations from foreign investors. Nevertheless, Japan still lags significantly in comparison to other developed countries. Japanese-listed firms have recently come under pressure to disclose more environmental, social, and governance (ESG) issues. The disclosure is indeed helpful for investors, as a rapidly increasing number of investors both inside and outside of Japan are including ESG issues in their investment decisions Focus [13]. Usami, et al. [14] also found that since June 2021, shareholders have begun requesting directors to develop fundamental sustainability policies and demanding listed firms publish their sustainability initiatives. This pattern is anticipated to persist.

Consequently, a new, stringent law amendment was made by the Japan Financial Services Agency starting in 2023. The commandment states that all listed companies in the country with a current fiscal year as of end of March 2023 or later are required to include additional information on the company's

environmental, social, and governance (ESG) in their annual public disclosure documents. This step is being taken by the agency to encourage and attract asset managers to invest in the companies and in return, boost the business's standing. However, even though many businesses in Japan are interested in ESG disclosure, many have found it difficult to comprehend what exactly investors want, and development has been uneven, particularly outside of the most well-known businesses [13].

The Japanese industry players are emphasized as having better ESG performance in tandem with other developed countries in the world. However, there are very limited studies on the influence of ESG performance on financial performance in Japan. Previous studies tried to relate the principles demanded of their agents by exploring the impact of the ESG pillars on the company's performance, specifically in financial aspects, but varying conclusions have been reached till today [15-18]. In this context, it is important to examine the impact of ESG performance from a financial perspective to understand the mechanisms underlying this affiliation.

2. Literature Review

2.1. *The Evolution of ESG*

ESG (Environmental, Social, and Governance) criteria first appeared in the early 2000s in response to increasing distress over the role of companies in society. The view of ESG began to gain footing in the investment world when investors started to realize that companies that run with a responsible and sustainable approach are more likely to deliver long-term profit. At first, ESG was predominantly focused on environmental concerns such as climate change, pollution, and resource depletion. According to UN [19] climate change cannot be denied, and resources will substantially be reallocated in the future. However, with time, ESG concept has broadened and incorporated social and governance issues as well. Examples of social issues like labor practices, human rights, and community relations became increasingly important to investors. Similarly, investors were also gaining interest in governance issues such as executive compensation, board diversity, and transparency when viewing a corporation's profitability.

Of late, ESG has become more conventional, with many large, established investors integrating ESG factors into their investment decision-making processes. As a result, companies are now under growing pressure to display their dedication to ESG issues to attract more investment. The development of ESG reflects a growing awareness of the significance of sustainability and social responsibility in business and investment. As the world faces increasing environmental and social challenges, the role of ESG in influencing business behavior and investment decisions is expected to continue to increase in significance.

2.2. *ESG Effect on Sustainability Issues*

The ESG effect on sustainability issues is important, as companies that perform well on these metrics are more likely to be sustainable and fruitful in the long run. Society is also progressively requesting companies to address ESG issues, as consumers and other stakeholders become more conscious of the effect of business on the environment and society. A study by Christensen, et al. [20] found that companies that reveal more information about their sustainability practices have better market appraisals and are less likely to receive negative comebacks such as environmental disasters or lawsuits.

A study performed by Deloitte [21] found that sustainable reporting facilitated the industry players to identify areas for enhancement. The report will synthesize and broadcast the information an organization decides to share regarding its commitments and actions in the social and environmental aspects. ESG and sustainability are both strategic considerations for businesses, executive teams, and investors, where their mutual objective is to improve the business practices and, in return, boost revenues and obtain favor from investors, customers, and regulators while upkeeping the environment and supporting communities.

Companies are also acknowledging the importance of ESG factors to manage risks, build confidence

with stakeholders, and boost their reputation. The ESG concept is applied by investors, providing them with a framework to assess a company's performance and risk. Whelan, et al. [22] state that establishments with strong ESG ratings have better financial performance and are less risky investments. For instance, ESG investing can provide long-term sustainable revenues by recognizing corporations that are well-positioned to manage risks and take advantage of prospects related to ESG factors. It can also help to cope with risks by identifying companies that are exposed to risks related to ESG factors, such as climate change or labor practices. ESG investing can also have a positive influence on society and the environment by leading investment towards companies that are making a positive impact on these issues.

2.3. ESG Performance from Japan Perspective

The idea of ESG has been introduced for several decades, but it was not until the early 2000s that it gained popularity in Japan. The 2004 introduction of the "Principles for Responsible Investment" by the United Nations was a significant turning point for ESG investing globally. ESG investing has expanded, notably in Japan, in recent years. According to a report by GSIA [23] sustainably managed assets in Japan showed the largest increase over the past two years, with approximately \$2,180 billion in 2018, an increase from \$474 billion in 2016. This increase can be attributed to several reasons, including increased awareness of ESG issues, regulatory changes, and investor demand. In 2015, the Japanese government introduced the "Stewardship Code" and the "Corporate Governance Code," which invigorated established investors to engage with businesses and endorse good corporate governance while encouraging them to consider ESG factors in their decision-making processes.

Based on the World Economic Forum's Global Competitiveness Report 2019, it was found that Japan ranks sixth out of 141 economies [24]. Japan ranked 18th amongst 169 countries in achieving SDGs in 2022. Clavecilla [25] found that numerous Japanese firms have made commitments to their neighboring communities and civilization to provide lifelong employment, environmentally mindful production processes, client-oriented products and services, and product protection. This commitment is believed to have increased business longevity in Japan, where they account for more than 40% of the world's corporations that are over 100 years old [26]. Enhancing sustainability can therefore be linked to competitive advantages in both the long and the short term.

ESG matters have quickly become a critical condition for investment making-decisions in Japan since Japan's Government Pension Investment Fund (GPIF), the world's major pension trust, became a signatory to the UN's Principles for Responsible Investment (PRI) in 2015 [27]. Japanese people use the phrase Sampo Yoshi, which means good for everyone. The idea is that business must benefit all people, not just a seller and client's relationship. So, Japanese merchants understand that they owe their business success to the communities and must give something back in return [28]. This shows that Japanese companies always had an enthusiasm to increase engagement while dealing with their stakeholders. Sampo Yoshi is also related to Mirai Yoshi, which means good for the future. These two ideas in Japanese give a particular reason for industrialists to think about the future of their society.

Study by Vuong [29] found that firms with better ESG performance are more likely to have better reputations and financial performance. The study also states that companies with better environmental and social performance tend to attract more highly skilled employees, which can be beneficial for the company's prolonged success. Further adding to the limited studies on the ESG pillars in Japanese companies, Broadstock, et al. [30] conducted a study among 320 Japanese firms' engagement in ESG policies on their invention capability levels from 2008 to 2016. They found that companies that implement the ESG policy confidently affect their worth, financial performance, and operational performance.

The future of ESG in Japan looks promising, with the government setting a target of attaining carbon neutrality by 2050 and technology projected to play a major role in the future. However, studies on the impact of environmental, social, and governance (ESG) performance on the financial performance of Japanese firms are still limited to this date. Hence, this research will look at these variables

specifically in this country of the rising sun. These aspects should be stressed for each company, as ignoring ESG matters will cause the business to suffer a negative performance in terms of limited access to private equity and high capital costs, which will eventually destroy the shareholders' value in the company.

2.4. ESG Performance and Financial Performance

Among the issues highlighted by previous studies related to ESG were the integration of ESG pillars on investment decision, the relevancy of ESG ratings connected to financial risk, and the ESG score effect on stock returns [31-33]. Indeed, there is a rising awareness among boards and firms of the significance of operating responsibly and the impact of ESG concerns on society and economic sustainability, which is directly related to long-term financial success and company value.

The influence of ESG factors on financial performance is one of the topics of debate, with some arguing that ESG factors are not relevant to financial performance, and others arguing that ESG factors are critical to financial performance. A study by Lee and Moscardi [34] observed that corporations with high ESG scores had higher profitability and lower risk in comparison to companies with low ESG scores. One of the methods to measure a firm's financial performance is by return on assets (ROA), which shows the ratio of profit. Other alternatives also consist of working capital, current ratio, inventory turnover, leverage ratio, and return on equity (ROE). Qureshi, et al. [35] find a bidirectional or mixed association between ESG performance and financial performance for ROE, whereas no correlation was found for ROA. They also noticed that there is a substantial negative impact of ESG on ROE that may cause the expenses on environmental and social activities to decrease the current profitability of the firms.

While Ramić [36] found that there was a discrepancy observed between the environmental rating and ROA, it is considered significant in the medium term but not significant in the short term. When comparing the impact of ESG performance on financial performance in the short and long term, the results show that a company with a greater return on assets (ROA) will be better ranked by the market. These factors function as quality indicators, so it stands to reason that businesses with high ROA and ROE over time will produce a profit.

The study by Garcia, et al. [37] looked at the profitability (ROA) and ESG scores of 365 companies from BRICS nations (Brazil, Russia, India, China, and South Africa) between 2010 and 2012. Also, research by Lin, et al. [38] determines profitability using ROA. The subject consists of 500 largest American companies listed in the S&P 500 (Standard & Poor's). Both studies proved that the effect of ESG performance on financial performance could be valued differently between sectors. Since no single model can account for the sustainability of all businesses, business cases must constantly be developed to maintain sustainability [39]. Another study done by Amel-Zadeh and Serafeim [40] shows that out of 500 investors, 63.1% of them agreed that the ESG performance impacts the investment returns, especially in Europe, and eventually it also results in a higher rate of financial returns than ethical reasons. However, Matakanye, et al. [41] stated that businesses respond in a different way to pressures for ESG performance. Many studies have been done that examine the effect of ESG performance on financial performance for a particular industry [42, 43]. A study by Chui, et al. [44] found that establishments in the transportation, retail, and information technology sectors tend to have better financial performance than establishments in other sectors. The study by Velte [45] also showed a positive correlation when same variables were used to measure ESG performance and company financial performance.

Based on prior literature, a conclusion can be drawn that ESG performance will have a positive effect on financial performance. Therefore, engagement with all stakeholders can improve ESG operations. To achieve sustainable development goals, businesses must incorporate social and environmental factors into their core business strategies. Over time, this will give them a competitive advantage [39].

2.5. Theory Related to ESG Performance and Financial Performance

2.5.1. Stakeholder Theory

ESG reporting has helped companies engage with stakeholders such as investors, customers, and employees. Companies that engage in sustainable reporting have better relationships with stakeholders and are more likely to attract investment Barko, et al. [46]. Pfajfar, et al. [3] also stated that stakeholders who want to make sustainable changes in their lives will also purchase goods and services from companies that are environmentally and socially responsible, thus making an immediate contribution to the bottom line. Acting within the Stakeholder Theory framework, the intention of this study is to understand the influence of the three ESG's pillars on the performance of the company, which primarily focus on firm financial performance that will be measured using the Return on Equity (ROE). Stakeholder theory has long been used as the foundation for research into the effect of corporate social performance on financial performance and company value [47]. The stakeholder theory is the concept whereby managers need to consider the interests of essential stakeholders as well as shareholders to boost the owners' assets.

Freeman, et al. [48] define stakeholders as a group of individuals that can influence a company, assert a corporation, and are affected by its productivity. According to this theory, organizations engaged in ESG agendas will have a favorable influence on financial performance and are expected to have a positive relationship with one another. Stakeholder theory offers a realistic approach that urges companies to be conscious of their relationships with all stakeholders to be more successful [49]. Surprisingly, the stakeholder's theory introduced by Freeman [50] is closely related to one of the Japanese principles that have been expanding since the Edo and Meiji periods, which is the Sampo-Yoshi principle, which means three-way satisfaction. This idea came from the group of merchants known as Omi Shonin. The idea is that every business must benefit all parties involved. This is referring to three specific groups, which are the seller (Urite Yoshi), the buyer (Kaite Yoshi), and that society (Seken Yoshi) as a whole. This idea has been growing throughout the centuries and has become the main principle for most merchants after all these years. This shows that the earlier centuries were getting the ideas and the importance of the principle specifically on how important these ideas are to protecting the performance of their companies.

In recent years, research has explored the ways in which stakeholder theory can inform and enhance corporate ESG performance and the potential for such performance to positively impact financial outcomes. ESG aspects are under pressure by stakeholders to ensure the companies they engage with remain competitive. Zhang and Liu [33] support instrumental stakeholder theory in understanding the impact of ESG performance on the flexibility of China's listed firms' financial performance and found that ESG performance substantially improves financial flexibility. Environmental assessment criteria will help stakeholders recognize an organization's influence on the environment and climate, like its greenhouse gas emissions and its management's stewardship over natural resources like fresh water.

Next, the social pillar analyses an organization's social effects. It analyses how well the organization's leadership supervises the relationships with stakeholders. Aspects commonly taken into consideration are fair wages for the employees, generating an optimistic mindset in the community's workplace, and taking responsibility for the schedules and decisiveness of supply chain partners in other parts of the world. Stakeholder participation in management has an impact on the social component of ESG's operational efficiency [51].

On the other hand, the governance pillar focuses on how the firm is led and managed. According to Ouni, et al. [52] the stakeholder theory offers a more comprehensive paradigm for deriving the structure of a board and the diversification of its members. What stakeholders are aiming at is another method of evaluating a company without looking at its balance sheet but instead, at how it influences the general external society. This shows that the higher the degree of corporate governance, the better the organization's financial performance, as it prioritizes the best interests of both the shareholders and stakeholders.

Overall, the results of these studies indicate that there may be a positive association between

stakeholder theory, ESG performance, and financial performance. By prioritizing the interests of all stakeholders and striving for long-term sustainability, corporations may be able to improve their ESG performance, which in turn will lead to improved financial returns.

2.6. Theoretical Framework

The figure shows the theoretical framework for the study (Figure 1). The study adopts stakeholder theory in explaining the causal effect of the topic. In essence, a corporation's ability to achieve prolonged sustainability is defined by its interactions with abundant stakeholders. Pulino, et al. [53] also agree with the fact that the stakeholders will be happier with a higher level of non-financial performance, which illustrates that the firm has a high level of responsibility and transparency. The study expects a significant positive effect on the environmental, social, and governance (ESG) performance of the financial performance of publicly listed companies in Japan. This is in line with the study by Shakil [54] which shows that higher environmental, social, and governance (ESG) performance will lead to higher financial performance. This study includes those three factors as the independent variables to support the dependent variable.

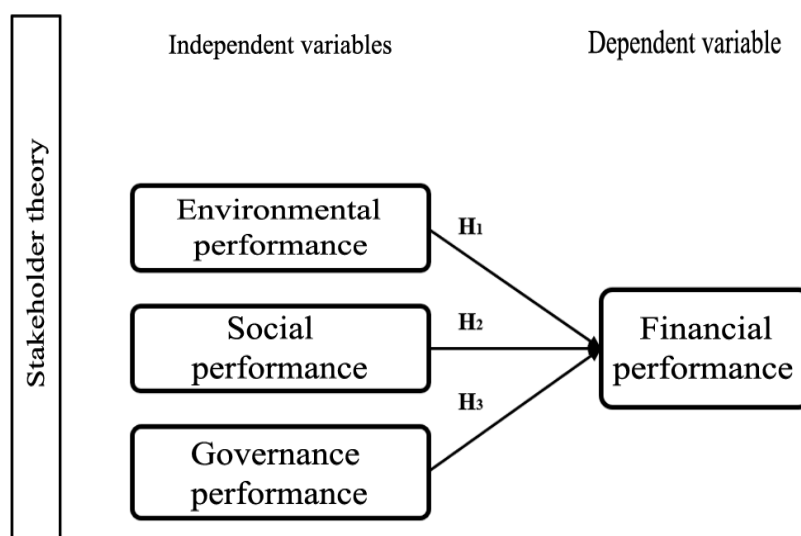


Figure 1.
Theoretical framework.

2.7. Hypotheses Development

To gain an extensive review of the impact of environmental, social, and governance (ESG) performance on the financial performance of publicly listed companies in Japan, this study explores three hypotheses to support the variables. The following is the development of hypotheses:

2.7.1. The Impact of Environmental Performance on Financial Performance

Environmental consciousness has grown in importance as a result of increased awareness of climate change and global warming. The environmental factor consists of how a company manages environmental issues such as pollution, waste management, deforestation, carbon dioxide emissions, and climate change. Globally, corporations adopt sustainable initiatives to lessen the environmental impacts generated and thus improve their financial performance.

According to Alsayegh, et al. [55] there has been an increased demand from investors for sustainable environmental performance, which reflects the more environmentally friendly approach practiced by more corporations. Naughton, et al. [56] stated that investors view companies with

healthier social and environmental practices as a safer option to invest in. However, the structure of the environmental score could vary between different establishments that measure these ratings.

Since endorsement of green initiatives has been growing progressively, corporations might lose the prospect of sustainable business if they do not begin investing in environmentally friendly ventures [57]. The meta-analytical results of Nguyen, et al. [58] designate a positive affiliation between environmental performance, accounting, and market-based financial performance. Most businesses plan environmentally friendly operations to comply with regulations or to satisfy the public. Even though the environmental pillar's new regulations are being vigorously intensified to improve reporting standards, the complexity of the indicators and reporting on environmental data can still be challenging [4].

A study by Naeem and Cankaya [59] examines the influence of ESG-based operations and performance scores of environmentally conscious firms on corporate financial performance in comparison to developed and emerging countries. The findings demonstrate that environmentally friendly companies' ESG performances are more well-known in developed country markets and have a greater impact on their financial performance than do those of their counterparts in emerging markets. Research by Chen, et al. [60] studied the relationship between environmental performance and a company's reputation and financial performance. The study found that companies with healthier environmental performance tend to have better reputations, which promotes customer loyalty and higher sales. According to the higher profitability and stock returns, the study also discovered that businesses with better environmental performance are more likely to have better financial performance. Using data from 38 airlines from 2009 to 2019, Abdi, et al. [15] observed the impact of ESG scores on establishment's value and profitability in the aviation sector. It is reported that investment in governance increases a company's market-to-book ratio, whereas participation in social and environmental causes increases financial efficiency. Therefore, this current study formulated the first hypothesis (H1) as follows:

H₁: There is a significant positive relationship between environmental performance and financial performance.

2.7.2. The Impact of Social Performance on Financial Performance

Social performance is the outcome of the company's leadership method for managing relationships and treatments given to their clients or stakeholders. This includes actions such as paying a fair salary to personnel, producing a positive working environment, and being responsible for the arrangements and delays of supply chain partners across the world. Ajina, et al. [61] explain that clientele, who have better familiarity with the environment and society favors establishments that have an appropriate CSR strategy, as it produces a direct reflection on business performances. So [57] also agrees with this fact, whereby society is more likely to contribute to and maintain support for companies that reinforce their social contract by performing sustainable activities.

Some businesses engage in CSR projects to counter their business practices that have an adverse impact on their stakeholders, society, or the environment, including their working teams. Saly [62] mentioned that better employee contentment leads to higher business performance. Hence, it is crucial to consider factors like employee relations, working environment, local community, diversity, conflict resolution, health, and safety to achieve better social performance. In other words, social performance can also be associated with the principles, practices, and consequences of a corporation's relations with people, administrations, foundations, communities, and societies. Businesses must incorporate Corporate Social Responsibility (CSR) into all facets of their company plans to fulfill expectations that they will contribute to a sustainable development [63]. Social performance has been proven to have an indirect, positive, and substantial impact on an organization's financial performance.

Ghardallou and Alessa [64] found that the corporate social performance of a company is positively correlated with its corporate financial performance. Using Tobin's Q ratio and operational performance (ROE and ROA) as dependent variables, the same study conducted by Bhaskaran, et al. [65] reviewed the impact of ESG on financial performance of 4,887 companies from 2014 to 2018. It was concluded

that companies with high achievement and emphasis on their social pillars can generate and obtain better market value. Research by Jigjiddorj, et al. [66] observed the relationship between social performance on customer loyalty and employee satisfaction. The study determined that companies with better social performance are more likely to have higher customer loyalty, and employee satisfaction, which in turn leads to increased sales and lower turnover rates. The research also found that companies that have better social performance tend to be more reputable, which is beneficial for the company's long-term success.

Another study by Coelho, et al. [67] on the influence of social performance on a company's financial performance found that companies with better social performance tend to have better financial performance, as indicated through higher revenues and stock returns. The study also noted that those companies are ranked with lower risk levels, which are more beneficial and favorable to investors. Meanwhile, Jan, et al. [68] evaluated that companies listed in the Dow Jones Sustainability Index have a positive relationship between CSR and accounting-based financial performance.

The study on the influence of CSR on financial performance in specific industries, like food and beverage manufacturers, also shows a positive connection between CSR and financial performance [18]. However, Matakanye, et al. [41] agree that financial performance can be viewed differently depending on the nature of the industries, their surrounding regions, and specific ESG criteria. Based on this previous literature, this study suggests the following hypothesis (H2):

H₂: There is a significant positive relationship between social performance and financial performance.

2.7.3. The Impact of Governance Performance on Financial Performance

Governance is the final component of ESG performance. Governance performance refers to the effectiveness of a company's management, board of directors, and advisors in supervising the company's operations and ensuring compliance with legal and ethical standards. It is becoming increasingly important for companies to prioritize governance performance, as regulators and investors place more emphasis on corporate governance practices. The structure by which an organization is managed, as well as the procedures by which it and its employees are held liable, are all covered in governance. Constituents of governance comprise administration, compliance, risk management, and integrity. Governance Performance enhances the reputation of the corporation by showing how they work morally towards society and environment [42]. Governance also considers a company's management style. The factory comprises various laws, tax planning techniques, charitable contributions, lobbying, corruption, and bribes. An organization's annual report generally includes governance reporting. Investing in companies with a higher rating of corporate governance offers investors higher returns compared to investing in companies with lower rating of corporate governance [60].

Rajesh [69] investigated which ESG component should be enhanced in developing nations like India. The author concluded that companies in developing countries should improve their governance performance to achieve sustainability scores. The influence of corporate governance on corporate financial performance is an interesting category in the influence of ESG on corporate financial performance. In an attempt to understand the effects of a non-market transnational sustainability strategy on company's performance, Shaikh [70] analyzed approximately 510 firm's ESG scores across 17 countries around the world. A study by Kim and Li [71] examined the association between governance performance, financial performance, and stock returns. The research found that businesses with better governance performance tend to have better financial performance, as evidenced by the higher profitability and stock returns received. The study also found that companies with better governance performance are more likely to have lower risk levels, which are more attractive to investors.

Meanwhile, Ray and Goel [72] focused on the relationship between governance performance and corporate financial performance. The authors discovered that there is a positive correlation between governance performance and financial performance. In general, good corporate governance practices

will have a positive influence on corporate financial performance. Therefore, hypothesis (H3) is hypothesized as follows:

H₃: There is a significant positive relationship between governance performance and financial performance.

3. Methodology

The methodologies used in recent studies on the influence of ESG performance on financial performance are diverse and wide-ranging. While some studies have limitations such as data availability or the use of self-reported ESG data, the overall findings propose a positive affiliation between ESG performance and financial performance.

3.1. Data Collection Procedures

The data for this study used secondary data. The data were retrieved from ESG rating providers, Thomson Reuters Eikon DataStream. Secondary data are used since the research involves variables and the nature of that data, which would be difficult to collect with any other method. The use of Thomson Reuters Eikon DataStream was inspired by previous researchers in understanding of the impact of ESG performance on a firm's financial performance [59, 73, 74]. The database focuses mainly on finance, corporate governance, environmental, and social aspects. It provides 70 key performance indicators for different ESG categories and has comprehensive reporting across 450 ESG data points, which date way back to 2002. It offers ESG scores of listed companies worldwide from 0-100, with 100 being the best score. There are three (3) independent variables, one (1) dependent variable, and one (1) control variable in this current research, as shown in Table 1. This study will focus on the data of each E, S, and G pillar's score as the independent variables precisely for publicly listed companies in Japan. The profitability of a firm will be used to determine the firm's financial performance and is the dependent variable. The profitability will be measured as return on equity (ROE). Both variables will be provided by the Thomson Reuters Eikon DataStream.

Table 1.
Source of data collected.

Variable	Data	Sources
Independent variable	Firm's environmental scores	Thomson Reuters Eikon DataStream
	Firm's social scores	
	Firm's governance scores	
Dependent variable	Firm's return on equity (ROE)	
Control variable	Number of employees	

3.2 Measurement of Dependent Variables

ROE (Return on Equity) is a financial criterion that computes a company's profitability by calculating the total net revenue made per unit of shareholder value.

The ROE in Eikon Refinitiv typically ranges from negative to over 50%, depending on the country and industry, as shown in Table 2. A higher ROE signifies that the company is producing more profit compared to the quantity of shareholder equity, which is usually viewed as a positive indicator. The average percentage of ROE (Return on Equity) can vary by sector due to the different characteristics of each industry.

Companies within each industry may have significantly higher or lower ROEs based on their specific business models, financial strategies, and competitive positions.

Table 2.
Range of return of equity (ROE) of industry in Japan.

No	Sectors	Average (%)
1	Basic materials	5-10
2	Consumer cyclicals	5-10
3	Consumer non-cyclicals	10-15
4	Energy & utilities	5-10
5	Healthcare	5-10
6	Industrials	10-15
7	Real estate	10-15
8	Technology	10-15

3.3. Data Analysis Technique

3.3.1. Data Analysis Procedure

To address the research questions and the study's objective, which is to examine the relationship between environmental, social, and governance (ESG) scores and financial performance, a quantitative study with data regression analysis was selected. Data regression allows researchers to estimate the relationship between variables while controlling for individual heterogeneity and time-invariant omitted variables [32].

The SPSS version 28.0 software was used to perform statistical data analysis, which includes descriptive statistics, factor analysis, and categorical data analysis.

This research data will also be comprise of the following analysis:

3.3.2. Descriptive Analysis

A descriptive statistical analysis will be used to analyze the data. It is a process of transforming raw data into a form that is easy to understand and provides valuable insights. This analysis was conducted to illustrate and summarize the behavior of the data. It is appealing to analyze these results to examine if the developments in the scores reflect the company's effort to enhance their ESG performance due to increasing interest in the issues [75].

3.3.3. Correlation Analysis

The correlation coefficient represents a positive or negative influence between ESG performance and financial performance. Schober, et al. [76] stated that Pearson Correlation could range from -1 to +1, whereby a positive value indicates that one variable increases simultaneously with the other. On the other hand, a negative value indicates that one increases while the other decreases. The highly significant $p < 0.01$ correlation reflects a high level of confidence association level.

3.3.4. Multiple Regression Analysis

A multiple regression model is generally utilized to study the connection between the dependent, independent, and control variables. This analysis will be used to quantify the link between the dependent and independent variables, which is the relationship between the ESG performance and the financial performance.

The hypotheses were also tested using multiple regressions (Table 3). The multiple regression model for this study is shown in Equation 1.

$$\hat{Y}_1 = \alpha + \beta_1(EP)_1 + \beta_2(SP)_2 + \beta_3(GP)_3 + \beta_4(SIZE)_4 + \varepsilon \quad (1)$$

Table 3.
Description of equation variables.

Variable	Description	Variable measurement	Source
Dependent variable (\hat{Y}_1)	Financial performance (Profitability)	Return on equity (ROE)	Thomson Reuters Eikon DataStream
Independent variable (EP)	Environmental pillar score. Between 0-100	Environmental performance score	Thomson Reuters Eikon DataStream
Independent variable (SP)	Social pillar score. Between 0-100	Social performance score	Thomson Reuters Eikon DataStream
Independent variable (GP)	Governance pillar score. Between 0-100	Governance performance score	Thomson Reuters Eikon DataStream
Control variable (SIZE)	Firm size	Number of employees	Thomson Reuters Eikon DataStream

4. Data Analysis & Findings

4.1. Preparing the Data

Preparing the data involves cleaning, organizing, and transforming the raw data into a format suitable for analysis. This research utilizes secondary data to examine the relationship between ESG performance and financial performance.

Data was collected using screener apps in Thomson Reuters Eikon DataStream by filtering the country of corporations, industries, and sectors, as well as the variable data (ROE and E, S, and G scores) for 5 years of observation. Out of 3,810 samples of publicly listed companies in Japan collected from the

Thomson Reuters Eikon DataStream, only 360 samples contain complete information and are suitable to be used in this analysis. Since Krejcie and Morgan [77] recommend a minimum of 351 samples, the final number of 351 companies, which also involve 1,755 observations, is selected to proceed with the data analysis. Before transferring the data into SPSS, it was first filtered and sorted in Microsoft Excel 2019. Figure 2 illustrates the overall overview of the population and sample of this study.



Figure 2.
Sample size finalization process flow.

4.2. Frequency Distribution of Demographic Variables

The unit of analysis in this study is the organization. The sample for the study varies concerning several demographic variables, one of which is the industry sector.

Table 4.
Sample characteristics (N=351).

Industry sector	Frequency	Percentage %	Cumulative percentage %
Basic materials	44	12.5	12.5
Consumer cyclicals	73	20.8	33.3
Consumer non-cyclicals	35	10.0	43.3
Energy & utilities	15	4.3	47.6
Healthcare	24	6.8	54.4
Industrials	91	25.9	80.3
Real estate	10	2.8	83.2
Technology	59	16.8	100

Table 4 demonstrates the sample description for this study, which is in the industry sector. The sample comprised companies from eight sectors: basic materials (12.5%), consumer cyclicals (20.8%), consumer non-cyclicals (10%), energy and utilities (4.3%), healthcare (6.8%), industrials (25.9%), real estate (2.8%), and technology (16.8%).

4.3. Descriptive Statistics

The descriptive statistics for this study are listed in Table 5. The specific labels contain items (the variables in this study, including dependent, independents, and control variables), N (number of samples), Min (minimum value), Max (maximum value), Mean (average value of the data scores), SD (standard deviation or average distance each value falls from the mean value), and Variance (variance or the square of the standard deviations from the mean). From Table 5, the sample of ROE that represents the financial performance has a mean equal to 2.01, whereas the minimum and maximum ROE differ from 1 to 3. The score represents ROE percentage categories, indicating 1 (low ROE), 2 (average ROE), and 3 (high ROE). For each of the ESG pillars, the environmental score shows a mean of 2.69, the social score shows a mean of 2.44, and the governance score shows a mean of 2.51. The environmental score has the highest mean, and the social score shows a slightly lower score among the independent variables. The score indicates a great variation from the worst-performing companies to the best-performing companies (1 to 4 score), and the control variable (SIZE) is also categorized from 1 to 3.

Table 5.
Descriptive statistics for scale variables.

Items	N	Min.	Max.	Mean	SD	Var.
Financial performance (FP)	351	1	3	2.01	0.518	0.268
Environmental performance (EP)	351	1	4	2.69	1.005	1.009
Social performance (SP)	351	1	4	2.44	0.898	0.807
Governance performance (GP)	351	1	4	2.51	0.854	0.730
Firm size (SIZE)	351	1	3	2.60	0.524	0.275

Note: FP : Financial performance (Return on equity).
EP : Environmental performance (Environmental score).
SP : Social performance (Social score).
GP : Governance performance (Governance score).
SIZE : Firm size.
Valid N(Listwise): 351

4.4. Normality Test

Based on general guidelines, the acceptable level of skewness and kurtosis should be in the range of ± 1.0 [78]. However, George and Mallery [79] considered the acceptable range of skewness and kurtosis to be ± 2.0 to prove a normal univariate distribution. Whereas Kim [80] stated that, for sample sizes greater than 300, either an absolute skew value greater than 2 or an absolute kurtosis greater than 7 may be used as reference values when defining substantial non-normality. Thus, in this study, the

results of the normality test fall within the acceptable limits, as shown in Table 6. Therefore, the data is normally distributed.

Table 6.
Normality test.

Constructs	N	Skewness	Kurtosis		
	Statistic	Statistic	Std. error	Statistic	Std. error
Financial performance (FP)	351	0.237	0.130	-0.576	0.260
Environmental performance (EP)	351	-0.383	0.130	-1.061	0.260
Social performance (SP)	351	0.028	0.130	-0.976	0.260
Governance performance (GP)	351	-0.053	0.130	-0.869	0.260
Firm size (SIZE)	351	-0.821	0.130	-0.545	0.260

Note: FP : Financial performance (Return on equity).
 EP : Environmental performance (Environmental score).
 SP : Social performance (Social score).
 GP : Governance performance (Governance score).
 SIZE : Firm size.
 Valid N (Listwise): 351

4.5. Correlation “r”

Correlation “r” assesses the degree of relationship between two variables, also known as the association of the variables. Jensen [81] stated that if correlation coefficient of two variables shows 0.90 or higher, one of the variables should be eliminated. Table 7 shows the correlation matrix of the variables.

Table 7.
Correlation among the subscales of the constructs.

Constructs		FP	EP	SP	GP	SIZE
FP	Pearson correlation	1	0.050	0.214**	0.208**	0.085
	Sig. (2-tailed)		0.353	0.000	0.000	0.112
	N	351	351	351	351	351
EP	Pearson correlation	0.050	1	0.705**	0.451**	0.052
	Sig. (2-tailed)	0.353		0.000	0.000	0.335
	N	351	351	351	351	351
SP	Pearson correlation	0.214**	0.705**	1	0.602**	0.043
	Sig. (2-tailed)	0.000	0.000		0.000	0.424
	N	351	351	351	351	351
GP	Pearson correlation	0.208**	0.451**	0.602**	1	0.054
	Sig. (2-tailed)	0.000	0.000	0.000		0.310
	N	351	351	351	351	351
SIZE	Pearson correlation	0.085	0.052	0.043	0.054	1
	Sig. (2-tailed)	0.112	0.335	0.424	0.310	
	N	351	351	351	351	351

Note: **. Correlation is significant at the 0.01 level (2-tailed).
 FP : Financial performance (Return on equity).
 EP : Environmental performance (Environmental score).
 SP : Social performance (Social score).
 GP : Governance performance (Governance score).
 SIZE : Firm size.

Based on Jensen [81] overall, there is no correlation coefficient that recorded 0.9 or higher, indicating that it is highly correlated. In the case where the correlation coefficient is less than 0.05 or at a significantly low level, both variables were still declared to be linearly related and considered

significant. Correlation was stated to be not significant if a very high significance level (for example, 0.50) was obtained, and both variables were not linearly associated.

Multicollinearity was the easiest to detect and test using correlations. For this current study, the correlation matrix (Table 7) proves that there are no issues of multicollinearity, as Jensen [81] suggests.

4.6. Reliability Test

Cronbach's alpha (α) is used to test the inter-item consistency and reliability Cronbach's coefficient alpha. The reliability analysis of all the variables for this current study is summarized in the Table 8. As for this study, the result obtained has Cronbach's Alpha reliability coefficients above 0.7 for all variables. The Cronbach's alpha (α) value for this study's five variables is 0.926, which is more than 0.8 and considered good. In conclusion, the results were consistent, and random error was avoided.

Table 8.
Reliability statistics.

Variables	Cronbach's alpha
Financial performance (FP)	0.795
Environmental performance (EP)	0.972
Social performance (SP)	0.963
Governance performance (GP)	0.946
Firm size (SIZE)	0.987
Overall Cronbach's alpha (N = 25) = 0.926	

Note: FP : Financial performance (Return on equity).
EP : Environmental performance (Environmental score).
SP : Social performance (Social score).
GP : Governance performance (Governance score).
SIZE : Firm size.

4.7. Hypotheses Testing

The regression analysis was used to test the three hypothesized associations between the three independent variables; environmental performance, social performance, and governance performance and the dependent variable, which is financial performance. The firm size (SIZE) is included as a controlling variable. Regression analysis was used in this study with significant level of $\alpha = .05$. To successfully test the association between these variables, one set of multiple regressions is conducted to test the impact of environmental performance (EP), social performance (SP), governance performance (GP), and the controlling variable (SIZE) on return on equity (ROE), which represents financial performance. The multiple regression model for this study is shown in Equation 2.

$$\hat{Y}_1 = \alpha + \beta_1(EP)_1 + \beta_2(SP)_2 + \beta_3(GP)_3 + \beta_4(SIZE)_4 + \varepsilon \quad (2)$$

R square explains how many variations of the dependent variable the independent and control variables in the regression explain. Table 9 shows the R square value is 0.083. The R square indicates that 8.3% of the variations in financial performance can be predicted from the independent and control variables. In this study, the financial performance refers to ROE, explained by three significant independent variables (environmental performance, social performance, and governance performance) and control variable (firm size). Meanwhile, the balance of 91.7% is clarified by other factors. The value of adjusted R square is 7.3%, which indicates the tendency to describe the ROE by the independent and control variables, considering the number of independent variables and sample size.

Table 9.
Model summary.

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.289 ^a	0.083	0.073	0.499

Note: a. Predictors: (Constant), SIZE, SP, GP, EP.
Dependent variable: ROE.

Table 10 shows the result of the ANOVA (statistical method that separates observed variance data into different components to use for additional tests) that the independent variables and control variable statistically predicted the dependent variable, $F(4,346) = 7.875$, $p < .001$. Thus, the overall regression model is a good fit for the data.

Table 10.
ANOVA.

Model	Items	Sum of squares	df	Mean square	F	Sig.
1	Regression	7.833	4	1.958	7.875	<0.001 ^b
	Residual	86.032	346	0.249		
	Total	93.865	350			

Note: Dependent variable: ROE.
b. Predictors: (Constant), SIZE, SP, GP, EP.

While **Table 11** shows the unstandardized coefficients of each of the independent and control variables, which also predicted the relationship with the dependent variable.

Table 11.
Regression coefficient.

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	1.515	0.157		9.648	0.000
	EP	-0.109	0.037	-0.212	-2.911	0.004
	SP	0.163	0.047	0.282	3.472	0.001
	GP	0.079	0.039	0.130	2.012	0.045
	SIZE	0.076	0.051	0.077	1.49	0.137

Note: Dependent variable: ROE

4.7.1. Environmental Performance

The resource use, emissions, and innovation were components of environmental performance that influenced the environmental pillar scores [82]. These aspects represent the basic factors that determine the company's sustainable investment achievement. In this study, environmental performance was measured by the score of E's (environmental) from Eikon Refinitiv. Hypothesis H1 was developed to identify whether environmental performance influences the financial performance of companies.

H₁: There is a significant relationship between environmental performance and financial performance.

The result in **Table 11** shows that environmental performance has a significant positive relationship with financial performance of publicly listed companies in Japan ($p < .05$, $\beta = -.109$). This means that when environmental performance goes up by 1 standard deviation, financial performance of publicly listed companies in Japan goes up by -.109 standard deviations. Thus, H1 is accepted.

4.7.2. Social Performance

Social performance represents the ways in which companies can instill the trust and expectations of associated members and society, by only being socially accountable and aiming to attract stakeholders. According to Naem and Cankaya [59] social performance is the relationship between companies and society which involves responsibilities towards internal and external stakeholders. Part of the

responsibilities of a company are the workforce administration and personnel welfare, human rights activities, serving and fulfilling duties to the local community and to the general society, product responsibility, and so on.

H₂: There is a significant relationship between social performance and financial performance.

When looking at the impact of social performance on financial performance, [Table 11](#) demonstrated that there is a substantial connection between social performance and the financial performance of publicly listed companies in Japan ($p < .05$, $\beta = .163$). This means that when social score increases by 1 standard deviation, ROE also increases by .163 standard deviations. Therefore, H₂ is accepted.

4.7.3. Governance Performance

Corporate governance is a measure used to manage organizations' activities towards refining business and corporate responsibility to recognize lasting shareholder value while bearing in mind other stakeholders' benefits [83]. Hypothesis H₃ was developed regarding the governance effect on financial performance. Management aspects, shareholders satisfaction, and CSR strategy were used in measuring the governance performance [84].

H₃: There is a significant impact between governance performance and financial performance.

The current study found that governance performance also has a significant positive relationship with the financial performance of publicly listed companies in Japan ($p < .05$, $\beta = .079$) ([Table 11](#)). It indicates that the ROE is predicted to increase by an average of 0.079 when the governance performance goes up by one. As a result, H₃ is not rejected.

4.8. Summary of Results

Overall, looking at the drivers of financial performance, [Table 12](#) shows that environmental, social, and governance performance strongly predicts financial performance (ROE). The R square value shown in [Table 9](#) indicates that all independent variables can explain 8.3% of the variation in ROE. All three independent variables have a significant positive influence on the dependent variable where $p < .05$. The standardized beta values of EP (-0.212), SP (0.282), and GP (0.130) indicate that every increase of one standard deviation in the E, S, and G performance results in -0.212, 0.282, 0.130 standard deviations, respectively, in the financial performance. Therefore, H₁, H₂, and H₃ are accepted, where the EP, SP, and GP have a significant positive relationship with the FP. However, only the control variable (SIZE), has proven to have no significant relationship with ROE ($p > .05$, $\beta = .076$) ([Table 11](#)).

Table 12.
Summary of coefficient for regression.

Hypotheses	Model	P- value	Result
H ₁	Environmental performance -> ROE	0.004	Accept
H ₂	Social performance -> ROE	0.001	Accept
H ₃	Governance performance -> ROE	0.045	Accept

Table 13.
Summary of result - Hypothesis testing.

Hypotheses	Result
Hypothesis 1	Accept
H1: Environmental performance significantly predicted financial performance.	
Hypothesis 2	Accept
H2: Social performance significantly predicted financial performance.	
Hypothesis 3	Accept
H3: Governance performance significantly predicted financial performance.	

Table 13 provides a summary of hypothesis testing for the study. All three hypotheses were accepted, showing that environmental, social, and governance performance strongly predicts financial performance (ROE).

5. Conclusion

The study investigates the impact of ESG pillars individually on a firm's financial performance, considering firm profitability in the world's 3rd largest economy, Japan. The study used individual ESG scores to measure ESG performance, and financial performance is measured using ROE. The regression result shows a trend toward the positive effect of each ESG pillar's performance on financial profitability in Japan. The relationship implies that higher E, S, and G performance in Japan affects a firm's profitability. This may happen due to the positive behavior of companies towards ESG activities or CSR practices, the highly sustainable investment culture of investors in socially beneficial activities, and the fact that investors and consumers are very sensitive to the ESG aspects of companies compared to other developed nations.

This study highlights the importance of stakeholder theory and its potential to enhance ESG and financial performance. The study findings agree with those of [About and Diab \[85\]](#) study which also used stakeholder theory. The result of the study demonstrates the positive implication of CSR or ESG on firm value, which can be explained through stakeholder theory. Additionally, this study can contribute to future research in this area by identifying gaps in literature and areas where further research is needed.

In terms of theoretical implications, the findings may make a meaningful contribution to industry players and investors in Japan, contribute to an understanding of the factors affecting financial performance, and contribute to future research on the impact of ESG performance on financial performance. Despite that, this study is not exempt from limitations, including time limitations in conducting this study and insufficient information needed to fulfil the research objectives. Future studies can be done by enlarging this study's sample size or population and observing other areas or countries. Further studies are also suggested to incorporate other factors and analyze the factors contributing to the high correlation between environmental, social, and governance (ESG) performance.

5.1. Significance Contribution

Applying the arguments of stakeholder theory, this study contributes to the growth of sustainable corporate strategies that are valued for environmental, social, governance, and firm's financial performance, using the Japanese companies as an illustration. The outcomes from this study would provide valuable input to the academic body of knowledge as they can provide empirical indications on the relationship between ESG performance and financial performance in the Japanese setting, which can add to the existing literature on the topic. Next, this study can identify any unique characteristics of the Japanese context that may affect the association between ESG performance and financial performance. This may provide some stimulus for future research in this field.

5.2. Limitation of the Study

It must be admitted that this study has several limitations. The results might be flawed because of these boundaries.

Time Limitation: One limitation of this current study is the time limit. This study relied solely on the Refinitiv Eikon database for data collection. While this database contained all the necessary information for the study, due to time constraints, it was not feasible to cross-check the data with other databases, and the study's reliance on the correctness and reliability of the data may have potential inaccuracies.

Insufficient Information: Another shortcoming of research studies is insufficient information, which is crucial to carrying out a comprehensive study. For instance, in this study, only 351 publicly listed companies were successfully sampled out of a total population of 3,810 observations. This limited

sample size may have impacted the findings because it may not be representative of the entire population, or shallow data analysis may not provide a complete picture of the research topic. Additionally, this may hinder the ability to derive data that can represent the actual effect of ESG on the financial value of publicly listed companies in Japan as a whole.

5.3. Future Study

From the limitation, it is suggested to increase the sample sizes of future studies because larger samples produce more accurate mean values, thus increasing the chances of detecting outliers that could distort the data and have a minimized margin of error. In addition, it would be interesting to examine the moderating role of some factors in the relationship between ESG and the firm's performance. Moreover, the correlation analysis between the variables shows that all three independent variables are highly correlated (Table 14). Thus, future studies should study the three pillars of ESG to understand their relationship and identify factors (X) that cause the high correlation between each respective pillar (Figure 3). The findings could establish indirect relationships when predicting the financial performance of companies.

Table 14.
Correlation matrix.

Variables	ROE	EP	SP	GP
ROE	1			
EP	0.050	1		
SP	0.214	0.705	1	
GP	0.208	0.451	0.602	1

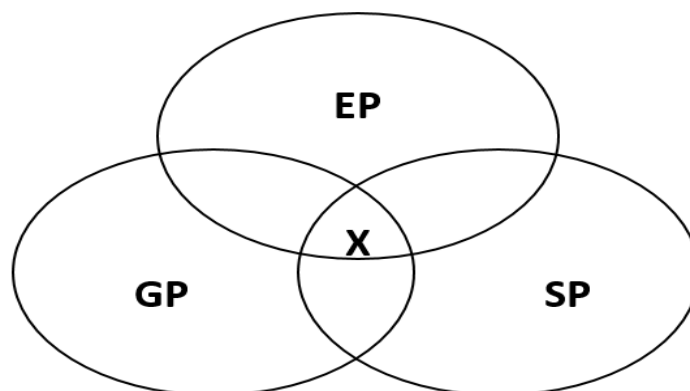


Figure 3.
Correlations between independent variables.

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The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Competing Interests:

The author declares that there are no conflicts of interests regarding the publication of this paper.

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