International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

The Relationship between Stock Market Returns and Environmental, Social, and Governance (ESG) Factors

Shruthi M S[1], Ramani[2]

[1]Research Scholar, Mother Teresa Women University
[2]Dean Research, Mother Teresa Women University

ABSTRACT

The dynamic link between stock market returns and the governance, social, and environmental variables is explored in the study project's abstract. Increased understanding of the interaction between economic interests and ESG issues has contributed to a substantial change in investor behavior as well as company practices in recent years. This change reflects a larger understanding that an organization's success in the areas of environmental responsibility, social equality, in addition to sound corporate governance is intimately related to its long-term sustainability and profitability. In the past, financial measures and economic indicators performed a significant role in determining stock market results. Investors are now aware that non-financial elements have an enormous impact on a company's financial performance and risk profile due to the growing importance of environmental challenges, social injustices, and corporate governance flaws. ESG investment emphasizes the idea that a company's value can be affected by its contributions to society, and the environment, including ethical behavior in addition to its financial performance. This study investigates the complex link between stock market returns and ESG criteria in an effort to shed light on the fundamental questions surrounding the superior performance of businesses that give ESG issues top priority. In addition to assisting investors in making knowledgeable and ethical investment decisions, a detailed analysis of this connection has significant consequences for businesses alongside the larger financial system, promoting a more accountable and sustainable global economy. The study examines the theoretical underpinnings of ESG considerations, looks at the potential of a positive relationship between ESG variables and stock returns, and evaluates ESG's function in risk management.

Keywords: Stock Market, Environmental, Social, Governance, financial, corporate governance.

Introduction:

In the recent years the global financial landscape is witnessing a significant change in the investor behaviour and also in the corporate practices which are being driven by a growing amount of awareness of the interconnected nature of economics and environmental and social governance factors. This kind of intersection in the stock market and ESG consideration has become a significant point of interest for the investors corporations and also for sum policy makers. This kind of shift is reflecting a broader kind of recognition that the businesses in the long-term sustainability and profitability are very much closely linked to the performance in these three critical areas which are environmental responsibility, social equity and strong corporate governance. In the early days stock market returns were used to be based on financial metrics and some economic indicators. As the environmental issues, social inequalities and corporate governance failure is coming to the forefront of the public consciousness the investors are beginning to recognize the fact that the non-financial factors can also profoundly impact the financial performance and also the risk profiles of a company (Kanuri, 2020). The concept ESG investing is based on the premise that the companies which are excelling in the environmental stewardship and also is fostering the positive social impacts and with that also are able to exhibit sound governance practices are always in a better position to navigate to the challenges of the modern business landscape and also are able to seize the long-term growth opportunities.

ESG investing also emphasizes the value of a company which is not completely determined by its profitability but also through its contribution to society, the environment and ethical conduct. Around the globe of investment and financial markets, the connections between returns on stocks and variables related to the environment, society, and governance (ESG) are a complicated and expanding topic of research. ESG indicators are a collection of governance, society, and environmental parameters utilized to assess an organization’s long-term viability and moral conduct. Buyers are becoming more involved in discovering how environmental, societal, and governance (ESG) factors affect the organization’s health and, thus, the return on their investment (Feng et al., 2022). The analysis tries to determine whether there is a connection between great environmental, societal, and governance (ESG) performance and improved economic returns, or whether sustainability considerations might assist in limiting hazards in the selection of investments. According to certain research, businesses that have excellent ESG results might prove able to endure the effects of ecological difficulties, as well as retain greater social responsibility from stakeholders. The critics, on the other hand, maintain that the link between environmental, social, and governance outcomes and stock exchange results is not necessarily evident and that additional economic issues play an important part (Mooneeapen et al., 2022).

This kind of shift in the perspective has led to an ongoing exploration of the complicated and multifaceted relationship between the stock market returns and also the factors of ESG. The main question which is being asked is whether the companies which are prioritizing the ESG concerns outperform those which do not and how these considerations are having an impact regarding the investment decisions (Kulal et al., 2023). The investors are increasingly looking beyond the traditional financial metrics so that they are able to make informed and ethical investment choices. This paper will deal into the evolving discourse which is surrounding the connection between stock market returns and ESG factors and also will share delight on the implications for the investors, businesses and also for the broader financial system. Through understanding this kind of relationship, the stakeholders will be able to take more informed decisions which will align with their financial objectives and ethical principles through the contribution to a more responsible and sustainable global economy.

Literature Review:

In the recent years they are has been a growing amount of interest in the relationship between the stock market returns and the environmental, social and governance factors. ESG factors represent a set of non-financial metrics which are used to examine a company's effect on the society and the environment. It also shows the organization's internal practices. This literature review will aim to provide an overview of the existing research on the subject and also will shed light on the diverse perspective and findings in this topic.

- **Theoretical framework and conceptual underpinnings:**

The ESG framework is based on the principles of sustainable irresponsible investing. It also represents a comprehensive approach for evaluating an organization's impact on the society, the environment and also on its internal governance practices. The meaning of "E" in ESG Refers to a company's environmental practices and also the impact it has on the planet. This includes several aspects for example the carbon emissions, the resource usage, west management and also the efforts the organization is making to reduce its ecological footprint. The theoretical basis for the evaluation of the environmental factors lies in environmental economics and sustainability theory. It is deeply rooted in the belief that the companies with environmentally responsible practices are more likely to thrive in a world with increasing number of concerns about the climate change, resource scarcity and environmental degradation (Bodhanwala, and Bodhanwala, 2023). From an economic perspective company which are proactively addressing the environmental issues are able to mitigate the risks which are related to regulatory changes resource availability and also regarding reputational damage.

The "S" in ESG Focuses on the companies' social practices and also addresses issues such as labour relations, diversity and inclusion, community engagement and also about the human rights standards. The theoretical foundation for the evaluation of social factors includes the stakeholder's theory and the idea that the companies do not operate in isolation but also are accountable towards several stakeholders which includes the employees, the customers and the communities and societies at a large scale. From an economical point of view the companies which are prioritizing the social responsibility our thought to increase their brand reputation and employee satisfaction and also the customer loyalty and that is how ultimately, they are leading towards improved financial performance. Socially responsible practices can also eliminate the risk of labour disputes, lawsuits and also the negative public perception (Miralles-Quirós et al., 2019).

The "G" in ESG signifies the governance structure of a company which includes the board composition, the executive compensation, the amount of transparency that an organization has and also the accountability of an organization. The theoretical meaning for governance factor is grounded in agency theory which shows that an organization's performance can be influenced by how much effectively it is aligning with the interest of the shareholders and also with the management. Good governance practices reduce agency costs and also prevent frauds and any kind of unethical behaviour. It also makes sure that a company is completely managed In the best interests of its owners, who are the shareholders. As a result of that strong governance is seen as a safeguard for the shareholders' investment.

- **Environmental, social, and governance influences stock valuations:**

While multiple investigations have shown that SRI beats the overall market, there remains disagreement over assuming environmentally reviewed investing can offer comparable gains. An initial investigation by Di Bartolomeo and Kurtz (1999) found that the Dominic Social Index's (DSI's) comparative greater success is due to the business moves implied in the cultural assessment procedure instead of ethical conduct. Recent studies using multiple-factor predictive models have indicated minimal proof of investment success due to environmental and social governance (ESG) elements; however, conclusions have been contradictory.

A pragmatic investigation has concentrated on the possibility of profits as a result of the ecological and ethical aspects, acknowledging the significant importance of these problems for company success. An additional essential reason behind ESG-related efficiency is that organizations with excellent corporate social performance (CSP), which are more likely to be led by stronger leadership, associating CSP to one of the fundamentals of operating an effective company. After this logic, the scientific description of the CSP/CFP link has grown more dependent on the notion of stakeholder theory, which holds that in order to be productive, businesses must handle many kinds of interest groups who have an interest in the business's social and economic growth (Qoyum et al., 2022).

The viewpoint of stakeholders switches a company's CSP aside from freedom tasks like charitable giving and philanthropy and regarding the interests of vital participants like investors, the owners, staff, leadership, clients, vendors, groups, and the surroundings. As a result, marketing plans aimed at effectively managing stakeholders and showing its overall leadership capability affect the extent of the organization's CSP and are beneficial to the Chartered Financial Planner.

- **Positive Correlation between ESG and Stock Returns:**

The idea of the positive correlation between ESG factors and stock market returns has gained attention in the last few years. There are several important studies which have provided evidence to support the idea that companies with strong ESG performance do have this tendency to generate better stock returns. these studies typically involve the construction of ESG indices or portfolios which are based on ESG scores and then comparing their returns to the traditional benchmarks. The underlying hypothesis is that the company is with superior ESG practices are way more likely to perform financially well because of several reasons (Abhayawansa, and Tyagi, 2021)

Strong ESG practices are able to reduce several risks which includes regulatory and illegal risks and reputational risks and any kind of food risks which are associated with environmental and social issues. ESG practices sometimes lead to more efficient resource utilization and lower energy consumption and that is how decreased waste production. These operational efficiencies are able to translate into cost savings and improved profitability. Companies which prioritize ESG factors are you able to attract a wide range of stakeholder and also customers investors and employees. ESG focused companies might find it easier to access the capital or secure loans at a comparatively more favourable terms which can help them to grow and expand (Qoyum et al., 2022). There is a positive correlation between ESG and stock returns which is sometimes more pronounced over longer period of time. This is consistent with the idea that ESG practices provide benefits gradually and the investors with a long-term perspective are more likely to capture these kinds of advantages. The investors particularly the institutional investors and those who are engaging in responsible for sustainable investing strategies are increasingly considering the ESG factors in their decision-making processes. This kind of growing investor demand for the ESG investments are able to create some additional demand for shares of companies with strong ESG profiles.

- **Increasing Financial Concentration on Environmental, Social, and Governance Factors:**

Throughout a ten-year period, socially responsible investing, or SRI for short, has developed to become a significant component of the financial services sector, accounting for approximately ten percent of total management investments in the United States and the European continent.

The Social Responsibility Institute is defined by the Socially Funding Committee (2006) as the evaluation of expenditures based on ecological and moral criteria, investor campaigning via official decisions and agreements or merely interacting with businesses on social and sustainability concerns (referred to as 'engagement'), and group spending that leads funding to societies that might not have the necessary assets. Compared to conventional saving, SRI pushes to produce both an acceptable long-term environmental impact and a profit from investments compatible with participants' societal goals and established filters (Gregory et al. 2021). As a result, the manner in which more stable societal benefits are reflected in lower long-term returns on investments represents an important research subject. From a financial point of view, the question of whether the Social Responsibility Initiative complies with the goals of MPT, which seeks to maximize investor value, continues. Conventional objections to the Social Responsibility Initiative revolve mostly around the decreased diversity advantage and higher dangers of SRI holdings. Contrasting the above, there is an increasing amount of evidence confirming the earnings possible for SRI methods, such as market inefficiency as well as data benefits accessible for SRI management to capitalize on.

This includes the effects of the price of investment on the stock exchange, lower lawsuit hazards, the prestige advantages of corporate social responsibility (CSR), and the idea that businesses with an excellent CSR history have superior handling of stakeholders. Despite rising curiosity and justifications in favour of SRI, scientific inquiry has yet to determine if using SRI controls in the course of investing minimizes, boosts, or has no influence on the profitability of investments (Kong et al., 2023). Although many investigations have looked at SRI investment results, there is still a gap in understanding the fundamental connection between SRI variables and stock market financial achievement. The results of the investigation's analysis reveal further understanding of the importance of SRI elements for company success.

- **ESG as a Risk Mitigation Strategy:**

Another perspective of ESG factors as the indicators of potential risk and vulnerabilities. There are some companies with poor ESG practices who are exposed to legal, regulatory and a reputational risk. There are investors who integrate ESG information into their decision-making process may be better equipped to assess and mitigate these kinds of risks (Brogi et al., 2022). There are case studies of ESG scandals and the economic consequences they provide. Several companies which are involved in these kinds of controversies for example environmental disasters or ethical violations experience stock price declines (Fauser, and Utz, 2021). These factors highlight the importance of assessment of ESG risk factors and to integrate them into investment strategies.

- **Limitations and Challenges:**

One of the significant challenges in the research of ESG is the quality and standardization of ESG data. Inconsistencies and subjectivity in the field of the ratings of ESG can sometimes make it very difficult to draw a meaningful conclusion out of it. There are some researchers who are continuing to grapple with the need for a standardized metrics and reliable data sources. The relationship between ESG and stock returns can be influenced through the time frame considered (Miralles-Quirós *et al.* 2019). While there are some studies which demonstrate the long term benefits but there are other studies also which suggest that short term stock market volatility and sentiment can overshadow the considerations regarding ESG. It is very much essential to recognize that the impact of ESG sometimes may not be immediately apparent. One of the most significant challenges in the ESG research is the quality and standardization of data. The matrix in this field sometimes rely on self-reported data from the companies which can lead to inconsistencies and inaccuracies. Companies may interpret the criteria of ESG in a different manner which leads to variation in how they report their own ESG practices (Mooneeapen et al. 2022). The assessment of ESG sometimes involve subjective judgment which makes it challenging to create a standardized metrics which will apply universally. Not all the companies disclose the same level of ESG data and the smaller or less known firms sometimes provide limited information. Efforts are being made to improve the data quality and standardization through initiatives like Global Reporting Initiatives and Sustainability Accounting Standards Board.

The limitation send challenge is in the understanding of the relationship between ESG and stock returns are multidimensional. Data quality and standardization issues and the interplay between short term and long term effects, sector specific dynamics, market sentiment and also the complexity of measuring the precise impact of ESG, all of these factors contribute to the complexity of this kind of relationship (Folqué et al., 2023). Acknowledging and addressing the limitations is very much crucial for the researchers and investors and also for the companies who are aiming to navigate the evolving landscape of ESG investing.

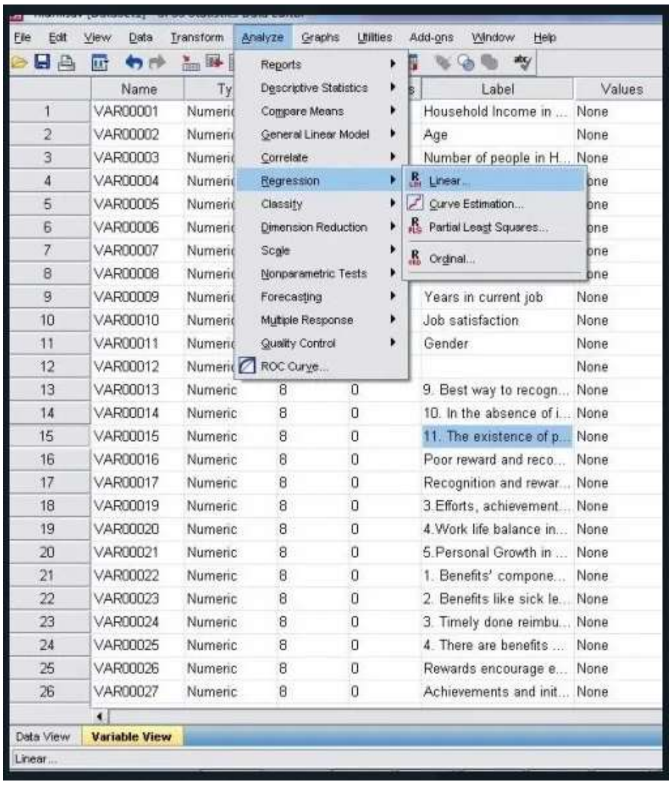
Methodology

Implementing SPSS, this study will examine the connection between stock market returns and environmental, social, and governance (ESG) issues. Employing sources like Bloomberg and ESG data providers like MSCI and Sustainalytics, historical stock market return information as well as ESG data are gathered for a certain time period as part of the process (Almeyda and Darmansya, 2019). To ensure variation in ESG performance, the sample will be meticulously selected, potentially from certain stock indexes or industrial sectors. Missing values and outliers will be corrected during data preparation, and the appropriate ESG factors will be chosen for additional analysis. These elements could include measurements for governance, diversity ratios, and emissions of carbon dioxide. A descriptive study will look at how stock returns and ESG ratings are distributed. The association between ESG ratings as well as stock returns will be assessed using correlation analysis, especially by generating correlation coefficients and applying SPSS (Feng et al. 2022). The study is going to depend heavily on regression analysis, with numerous regression models developed in order to assess the influence of ESG factors on stock returns while adjusting for any confounding variables. Researchers are going to employ hypothesis testing to evaluate the statistical importance of the ESG components. The results will be analyzed, with conclusions drawn and ramifications for investors and governments discussed. Ethics must be adhered to throughout the study to ensure that data privacy and intellectual property rights are respected for a thorough and moral examination.

Analysis

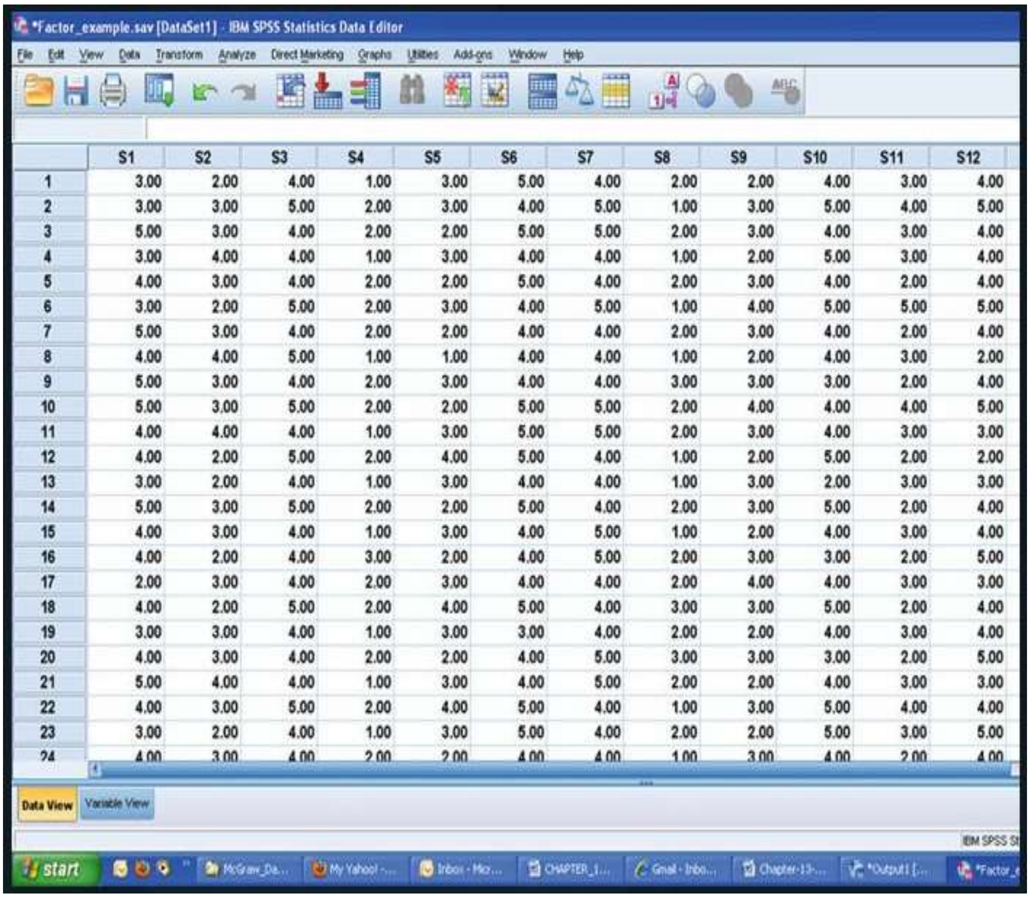
- **Descriptive Analysis:**

Performing a thorough descriptive analysis of the data is the first step of this investigation. Insights into the central tendency, dispersion, and geographic distribution of stock market returns as well as the chosen ESG (environmental, social, and governance) components are sought by this introductory investigation. Calculating fundamental descriptive statistics for these variables is the initial step. For both stock market returns and ESG considerations, this entails calculating metrics like the mean, median, standard deviation, minimum, as well as maximum values (Meher et al. 2020). These computations can usually be easily carried out in SPSS by selecting the "Descriptives" function for each variable. In addition to fundamental statistics, histograms, in addition to box plots will be produced as graphical representations. These graphics are used to demonstrate the way stock market returns and ESG ratings are distributed. These visual aids may be made using SPSS' "Chart Builder" tool. The form of the data is better understood thanks to these images, which can additionally be useful for spotting potential outliers or skewness.



- **ANOVA Analysis:**

The objective of the subsequent phase of the study is to determine if there are statistically significant variations in stock market performance across various ESG factor levels. The study is going to employ Analysis of Variance (ANOVA), a potent statistical method for comparing means across many groups, in order to accomplish this goal. By selecting "Analyse" > "Compare Means" > "One-Way ANOVA" in SPSS, you may carry out an ANOVA. Stock market returns are going to serve as the dependent variable in this procedure, while ESG considerations will be the independent variable. Post hoc tests like Tukey's HSD or Bonferroni are helpful in helping determine whether particular groups exhibit substantial variations if an ANOVA suggests significance. An F-statistic and the essential p-value are produced by the ANOVA findings, which reveal if there are statistically significant differences in stock returns across various ESG levels (Atan et al. 2018). A low p-value (below 0.05) often indicates a substantial difference between at least one group and the rest.



	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
1	3.00	2.00	4.00	1.00	3.00	5.00	4.00	2.00	2.00	4.00	3.00	4.00
2	3.00	3.00	5.00	2.00	3.00	4.00	5.00	1.00	3.00	5.00	4.00	5.00
3	5.00	3.00	4.00	2.00	2.00	5.00	5.00	2.00	3.00	4.00	3.00	4.00
4	3.00	4.00	4.00	1.00	3.00	4.00	4.00	1.00	2.00	5.00	3.00	4.00
5	4.00	3.00	4.00	2.00	2.00	5.00	4.00	2.00	3.00	4.00	2.00	4.00
6	3.00	2.00	5.00	2.00	3.00	4.00	5.00	1.00	4.00	5.00	5.00	5.00
7	5.00	3.00	4.00	2.00	2.00	4.00	4.00	2.00	3.00	4.00	2.00	4.00
8	4.00	4.00	5.00	1.00	1.00	4.00	4.00	1.00	2.00	4.00	3.00	2.00
9	5.00	3.00	4.00	2.00	3.00	4.00	4.00	3.00	3.00	3.00	2.00	4.00
10	5.00	3.00	5.00	2.00	2.00	5.00	5.00	2.00	4.00	4.00	4.00	5.00
11	4.00	4.00	4.00	1.00	3.00	5.00	5.00	2.00	3.00	4.00	3.00	3.00
12	4.00	2.00	5.00	2.00	4.00	5.00	4.00	1.00	2.00	5.00	2.00	2.00
13	3.00	2.00	4.00	1.00	3.00	4.00	4.00	1.00	3.00	2.00	3.00	3.00
14	5.00	3.00	5.00	2.00	2.00	5.00	4.00	2.00	3.00	5.00	2.00	4.00
15	4.00	3.00	4.00	1.00	3.00	4.00	5.00	1.00	2.00	4.00	3.00	4.00
16	4.00	2.00	4.00	3.00	2.00	4.00	5.00	2.00	3.00	3.00	2.00	5.00
17	2.00	3.00	4.00	2.00	3.00	4.00	4.00	2.00	4.00	4.00	3.00	3.00
18	4.00	2.00	5.00	2.00	4.00	5.00	4.00	3.00	3.00	5.00	2.00	4.00
19	3.00	3.00	4.00	1.00	3.00	3.00	4.00	2.00	2.00	4.00	3.00	4.00
20	4.00	3.00	4.00	2.00	2.00	4.00	5.00	3.00	3.00	3.00	2.00	5.00
21	5.00	4.00	4.00	1.00	3.00	4.00	5.00	2.00	2.00	4.00	3.00	3.00
22	4.00	3.00	5.00	2.00	4.00	5.00	4.00	1.00	3.00	5.00	4.00	4.00
23	3.00	2.00	4.00	1.00	3.00	5.00	4.00	2.00	2.00	5.00	3.00	5.00
24	4.00	3.00	4.00	2.00	2.00	4.00	4.00	1.00	3.00	4.00	2.00	4.00

- **T-Test Analysis:**

T-tests serve as crucial in assessing particular comparisons of interest when analysing the link between stock market returns and ESG, or environmental, social, and governance, ratings (Bahadori et al. 2021). If firms with high ESG ratings have considerably distinct stock returns from those with poor ESG scores, this is a typical question in such assessments. The Independent Samples t-test, as well as the Paired Samples t-test, are the two main t-test variants that are available in SPSS. As it is used to compare two separate and unrelated groups, which includes organizations with high and poor ESG scores, the Independent Samples t-test is the suitable option in this situation. The researcher starts the analysis by selecting "Analyse" > "Compare Means" > "Independent Samples T-Test" to do an Independent Samples t-test in SPSS. The category variable that distinguishes the high and low ESG groups can be entered as the grouping variable in the following dialogue box. As the continuous variable for the variations that are to be evaluated, the variable for stock returns is simultaneously chosen as the test variable. The Independent Samples t-test findings generally include the t-statistic as well as the p-value, which are two very important pieces of data. The t-statistic calculates the mean difference between the two groups, whereas the p-value estimates the likelihood that this difference resulted from pure chance (Sultana *et al.* 2018). A low p-value, which is frequently established at a threshold of 0.05, in this context denotes a statistically significant discrepancy between the stock returns of businesses with high ESG scores and those with low ESG ratings. This implies that the observed difference does not appear to have developed arbitrarily and may be regarded as a significant distinction.

T-Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Dr Smith Test Grades	10	75.30	13.005	4.112

One-Sample Test

	Test Value = 80					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Dr Smith Test Grades	-1.143	9	.283	-4.700	-14.00	4.60

- **Interpreting the Results:**

For the data to yield insightful conclusions, it must be possible to interpret the findings of statistical analysis. A p-value of less than 0.05 in the context of an ANOVA denotes statistically significant significance, demonstrating that at least one level of the ESG component significantly affects stock market performance. ANOVA does not, nevertheless, indicate which levels are distinct. Post hoc tests like Tukey's HSD or Bonferroni have the potential to remedy this. These tests assist in identifying which particular groups or levels show significant mean differences. When working with more than two groups, post hoc tests are very helpful since they give you a more detailed knowledge of the relationships between the data.

A p-value of less than 0.05 for t-tests demonstrates the statistical significance of the disparity between the stock returns of the two groups being compared, which includes high- as well as low-ESG-score businesses. This conclusion shows that the means of the groups are not comparable and that chance is unlikely to be the source of the discrepancy. In addition, useful context is provided by effect size measurements like Cohen's d for t-tests and eta-squared for ANOVA. They contribute to comprehending the importance of the statistical findings in real-world contexts. Effect sizes, which go beyond simple statistical significance, are used to measure the extent of the observed effects. For example, an effect size of eta-squared or Cohen's d could demonstrate how strongly ESG variables and stock returns are correlated. A big effect size denotes a significant, concrete impact, whereas a reduced effect size denotes a more subdued influence. In this thorough investigation, the use of SPSS was implemented to investigate the connection between stock market performance and ESG aspects. ANOVA and t-tests were used to look into the manner in which ESG elements affect stock returns, while descriptive statistics were used to understand core patterns as well as distributions. The results of these analyses could have a significant role in inferring important conclusions about the relationship between ESG characteristics and stock market performance, offering useful information for investors and decision-makers.

Conclusion:

The relationship between the stock market returns and ESG factors is emerging as a critical area for exploration and debate within the financial and investment community. This literature review has given insight into the theoretical points empirical evidences and also the limitations and challenges which are surrounding this kind of relationship. Empirical research provides evidence that a positive correlation exists between strong ESG performance and the stock returns in the long run. This kind of correlation is supported by the reduction of risks, operational efficiency stakeholder attraction and investor behaviour favouring ESG conscious companies. While the positive impact of ESG practices is quite evident the strength of this kind of correlation can you vary across sectors and the long term nature of these benefits often contrasts with short term market dynamics. There are some challenges which persist, including the issues which are related to data quality and standardization, sector specific dynamics and the influence of market sentiment and short termism. Investors are increasingly prioritizing the ESG considerations which is a signal of a fundamental shift in the financial landscape. The companies that are embracing strong ESG practices not only contributing to societal and environmental well-being but also stand to gain in the terms of long term financial performance. As the relationship between the ESG and stock market returns is continuing to evolve, it is very much essential for the stakeholders to navigate the complexity of this region. The integration of the ESG principals into the investment strategies and corporate decision making is not merely a matter of responsible investing but also is a significant approach to manage the risks anti seize the opportunity in a world which is becoming increasingly attuned to sustainability and ethical considerations.

Reference

Abhayawansa, S. and Tyagi, S., 2021. Sustainable investing: The black box of environmental, social, and governance (ESG) ratings. *The Journal of Wealth Management*.

Almeyda, R. and Darmansya, A., 2019. The influence of environmental, social, and governance (ESG) disclosure on firm financial performance. *IPTEK Journal of Proceedings Series*, (5), pp.278-290.

Atan, R., Alam, M.M., Said, J. and Zamri, M., 2018. The impacts of environmental, social, and governance factors on firm performance: Panel study of Malaysian companies. *Management of Environmental Quality: An International Journal*, *29*(2), pp.182-194.

Bahadori, N., Kaymak, T. and Seraj, M., 2021. Environmental, social, and governance factors in emerging markets: The impact on firm performance. *Business Strategy & Development*, *4*(4), pp.411-422.

Bodhanwala, S. and Bodhanwala, R., 2023. Environmental, social and governance performance: influence on market value in the COVID-19 crisis. *Management Decision*.

Brogi, M., Lagasio, V. and Porretta, P., 2022. Be good to be wise: Environmental, Social, and Governance awareness as a potential credit risk mitigation factor. *Journal of International Financial Management & Accounting*, *33*(3), pp.522-547.

Fauser, D.V. and Utz, S., 2021. Risk mitigation of corporate social performance in US class action lawsuits. *Financial Analysts Journal*, *77*(2), pp.43-65.

Feng, G.F., Long, H., Wang, H.J. and Chang, C.P., 2022. Environmental, social and governance, corporate social responsibility, and stock returns: What are the short-and long-Run relationships?. *Corporate Social Responsibility and Environmental Management*, *29*(5), pp.1884-1895.

Folqué, M., Escrig-Olmedo, E. and Corzo Santamaria, T., 2021. Sustainable development and financial system: Integrating ESG risks through sustainable investment strategies in a climate change context. *Sustainable Development*, *29*(5), pp.876-890.

Gregory, R.P., Stead, J.G. and Stead, E., 2021. The global pricing of environmental, social, and governance (ESG) criteria. *Journal of Sustainable Finance & Investment*, *11*(4), pp.310-329.

Kanuri, S., 2020. Risk and return characteristics of environmental, social, and governance (ESG) equity ETFs. *The Journal of Beta Investment Strategies*, *11*(2), pp.66-75.

Kong, Y., Agyemang, A., Alessa, N. and Kongkuah, M., 2023. The moderating role of technological innovation on environment, social, and governance (ESG) performance and firm value: Evidence from developing and least-developed countries. *Sustainability*, *15*(19), p.14240.

Kulal, A., Abhishek, N., Dinesh, S. and Divyashree, M.S., 2023. Impact of Environmental, Social, and Governance (ESG) Factors on Stock Prices and Investment Performance. *Macro Management & Public Policies*, *5*(2), pp.14-26.

Meher, B.K., Hawaldar, I.T., Mohapatra, L., Spulbar, C.M. and Birau, F.R., 2020. The effects of environment, society and governance scores on investment returns and stock market volatility. *International Journal of Energy Economics and Policy*, *10*(4), pp.234-239.

Miralles-Quirós, M.M., Miralles-Quirós, J.L. and Redondo-Hernández, J., 2019. The impact of environmental, social, and governance performance on stock prices: Evidence from the banking industry. *Corporate Social Responsibility and Environmental Management*, *26*(6), pp.1446-1456.

Mooneeapen, O., Abhayawansa, S. and Mamode Khan, N., 2022. The influence of the country governance environment on corporate environmental, social and governance (ESG) performance. *Sustainability Accounting, Management and Policy Journal*, *13*(4), pp.953-985.

Qoyum, A., Sakti, M.R.P., Thaker, H.M.T. and AlHashfi, R.U., 2022. Does the islamic label indicate good environmental, social, and governance (ESG) performance? Evidence from sharia-compliant firms in Indonesia and Malaysia. *Borsa Istanbul Review*, *22*(2), pp.306-320.

Sultana, S., Zulkifli, N. and Zainal, D., 2018. Environmental, social and governance (ESG) and investment decision in Bangladesh. *Sustainability*, *10*(6), p.1831.