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Financial Competitiveness of ESG Investments: A Comparative Study of Portfolios across Indian and Global Markets

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Abstract

In 2004, the World Bank and United Nations have promulgated the ESG investing framework which has a primary focus of considering sustainability practices in financial analysis. As a result of this, the regulatory bodies across the world have instructed their industries to integrate the ESG practices in their business. The investors in securities market attracted to the ESG initiatives taken by the industries and they made their investment decision by considering the ESG factors. This has motivated many researchers to find out the nexus between ESG factors and the performance of the portfolios. In the same way, a comparative analysis between ESG and traditional funds of India, US, UK, Australia and Sweden have performed in this study. The researchers considered a sample of 30 ESG thematic and traditional funds for a five year period. Performance of ESG and traditional funds assessed through return & risk metrics and risk adjusted measures. It is identified that the ESG funds have a high downside risk protection ability than the traditional funds. The ESG funds from the UK and Australia have exhibited a strong performance than the traditional funds. In the US, the traditional funds have dominated the ESG funds in terms of performance metrics. The ESG funds from India and Sweden, with a mixed results, depicts that the ESG investing is in the nascent stage.

Keywords: ESG Investing, Sustainable Investing, Portfolio Management, Risk-Return, Financial Performance, Asset Allocation, Traditional Portfolios, ESG Factors, Mutual Funds.

1.Introduction

Bloomberg projected that the assets managed in the ESG funds across the globe will increase to the tune of $40 trillion by 2035. This indicated a gradual shift of investor perception from traditional investment to ESG investment. Ethical considerations and severe regulatory compliances influenced the industries to adopt ESG factors in their business. This initiative has motivated the investors to incorporate the ESG metrics in their investment decision making(Yu et al. (2024). On the other side, a dilemma persists among investors regarding whether ESG funds produces higher risk-adjusted return than the traditional funds or whether ESG funds are mirroring the traditional funds' performance without financial advantage. Many research studies have proved that ESG theme-based investing could reduce long-term risk, increase returns and helps to achieve sustainable development.

The ESG investing wave driven by the factors such as increasing regulatory norms, growing investor awareness of ESG issues and world-wide ESG initiatives by Paris Agreement and UN's PRI initiative. Companies across the world realizing that embedding ESG initiatives in their business model will create value in long-term. Investors are increasingly examining the impact of ESG practices on firm's performance, recognizing that firms with strong ESG practices are better positioned to manage the risks effectively and achieve sustainable growth. It is observed from the academic literature that companies with strong ESG practices exhibit resilience during economic fluctuations, managing risk and enhanced brand value which may contribute to long-term profitability. On the other hand, a cynical view towards ESG practices could impact the profitability of firm's due high compliance cost, poor standardization in ESG metrics and privileged screening methods. In addition to this, an alarming rise in greenwashing where firms attract investments without proper implementation of ESG practices. Absence of a universal ESG rating system and uneven regulatory frameworks across various nations could further obscure the assessment of ESG investment performance. By considering the two distinct views on impact of ESG practices on financial performance, this study focuses on comparing the performance of ESG-compliant portfolios and traditional portfolios.

Significance of this study is to assess the Indian and global markets by comparing ESG indices and traditional indices to gain a comprehensive understanding of their financial outcomes. The paper is structured as follows; section 1 introduction, section 2 focuses on empirical review of the study, methodology elucidated in section 3, Data analysis and discussions presented in section 4 and section 5 concludes the paper

2.Background and empirical Framework

An extensive literature review on ESG portfolios performance across global markets observed that the previous studies can be categorised under three themes such as

(i) Studies those reported significant impact of ESG metrics on portfolio performance,
(ii) Studies with neutral or mixed impact
(iii) Studies proved insignificant impact of ESG metrics on portfolio performance .

Studies with Significant Impact Of ESG Metrics On Portfolio Performance

Studies such as Badía et al. (2019) , López Prol and Kim (2022) Beloskar and Nageswara Rao (2024) and Kusno et al. (2024), identifed that ESG-focused portfolios outperformed traditional benchmarks in terms of risk-adjusted returns. Naffa and Fain (2020) demonstrated that ESG-oriented portfolios which are aligned with global megatrends generated higher returns by factor-based methodologies. Studies of Samyukth (2021), Wang (2024), and Short and Ndlovu (2025) supported that integration of ESG practices increases portfolio efficiency across different market settings. It is evident from the recent studies by Davoodi et al. (2024) and Adeoye et al. (2024) that ESG-focused portfolios constructed using machine learning and Markov Switching Variance models can generate high short-term returns. Additionally, Rubbaniy et al. (2021) identified that ESG stocks acted as safe-haven assets during COVID-19 and Agliardi et al. (2023) found that firms with strong environmental performance produce sustainable long-term risk-adjusted returns. In terms of market reactions towards releasing of ESG ratings Glück et al. (2022) observed that a linear relationship existed between ESG rating downgrades and significant negative stock price performance.

Studies With Neutral Or Mixed Impact ESG Metrics On Portfolio Performance

The second component of literature presents mixed or context-dependent findings, suggesting that the ESG–performance relationship is not consistent across the globe. Cesarone et al. (2022) identified that the ESG factors enhanced fund performance in the United States whereas not in the European markets. Sandu (2023, 2024) and Zehir and Aybars (2020) further identified that ESG performance varied across as South African, European, and Turkish stock markets. On contrast, Alias (2022) observed that ESG funds outperformed traditional portfolios under strong economic conditions but produced higher volatility during economic downturn.. Additionally, Romanko et al. (2023) showed that Artificial Intelligent based ESG fund selection is also possible. In a nutshell, it is found that ESG outcomes are contingent methodological choices, market-specific factors and data quality.

Studies With Insignificant Impact Of ESG Metrics On Portfolio Performance

The final component of the review exhibits the studies which underscored negative or statistically insignificant nexus between ESG metrics and portfolio performance. Das et al. (2018) stated in their study that ESG ratings have not significantly improved the performance of socially responsible mutual funds. Tadoori and Kiran (2021) found that the ESG and traditional indices were indifferent. Verheyden et al. (2016) observed that the diversification benefits could be reduced by ESG theme specific funds and this could affect the portfolio efficiency. Suryomurti (2018) noted to structural restrictions in ESG themed investment indices by arguing ethical constraints could constrain financial performance. These studies highlighted significant equilibrium between sustainability goals and profitability of firms by questioning the global adoptability of ESG metrics in investments.

Recent studies have extended the applications of ESG metrics by considering the emerging risks and advanced modelling approaches. Merz (2019) suggested a conceptual framework integrating CSR performance theory, ESG investor preferences, and asset pricing mechanisms also highlighting the lack of conclusive empirical support for ESG superiority. In the same tone, Pedersen et al. (2022) introduced the concept of an ESG-efficient frontier, signifying that investors could accept lower expected returns against reduced risk and better sustainability outcomes. Sundaram (2022) further argued that the ESG theory and related empirical evidences promulgating its role in mitigating reputational and regulatory risks. Macey (2022) and Pollman (2023) suggested significant views to question the underlying motivations and conceptual clarity of ESG by highlighting areas such as managerial opportunism, regulatory arbitrage, and definitional ambiguity. Bouteska et al. (2025) examined the impact of climate transition risk and ESG rating divergence by exhibiting that if any inconsistency in ESG assessments , then it can significantly influence portfolio performance.

Overall, the existing literature does not give a clear view on how ESG factors affect portfolio performance. Although many studies suggested that integration of ESG metrics will improve the financial performance , few argued that ESG has no impact or mixed response . This variation pointed out that the effect of ESG depends on factors such as the region studied, the research methods used, and how ESG is measured. Thus, more empirical research is required, particularly in emerging markets and with the growing use of technologies such as analytics and AI. This has inspired the researchers to conduct a study on comparative ESG-backed portfolios over traditional portfolios with Indian and global markets

3.Metholdology

This study has adopted descriptive research design to assess the variation in the performance between ESG-compliant and traditional investment portfolios across selected global markets. , The study considered five countries Viz., India, the United States, the United Kingdom, Sweden, and Australia for analysis. This will ensure geographic diversity and variation in ESG maturity and regulatory frameworks. Both primary and secondary data sources are utilized, with secondary data collected from financial databases, fund reports, and stock exchange platforms . The study analyses a sample of 30 funds over a five-year period. Various financial and statistical tools, including return measures, risk indicators and risk-adjusted performance metrics are employed to assess and compare portfolio performance.

4.Data Analysis and Discussions

This chapter presents comparative performance analysis metrics of ESG funds and traditional funds of selected five countries viz., India, United States of America, United Kingdom, Australia and Sweden from 2021 to 2025. Performance of the funds measured through the metrics such as return, risk, relative risk, risk adjusted return.

Table 1- Performance Analysis Metrics of ESG And Traditional Funds in India

Metrics	ESG	Traditional	Better Performer
Return Metrics			
Absolute Return (%)	205.379	202.13	ESG
CAGR (%)	14.692	14.23	ESG
Min Return (%)	-1.20	1.74	Traditional
Max Return (%)	27.34	27.70	Traditional
Absolute Risk Metrics			
Std Dev (%)	11.517	9.40	Traditional

Max Drawdown (%)	-0.23	-0.25	Traditional
Downside Deviation (%)	2.80	3.18	ESG
Relative Risk Metrics			
Beta	0.72	0.75	Traditional
Alpha (%)	0.37	0.25	ESG
Value at Risk (5%)	-5.41	-4.40	ESG
R-Squared (%)	86.72	94.75	Traditional
Risk-Adjusted Return Metrics			
Sharpe Ratio	0.18	0.19	Traditional
Sortino Ratio	0.32	0.30	ESG
Treynor Ratio (%)	1.19	1.26	Traditional

ESG funds in India delivered higher long-term returns, with an absolute return of 205.38% and CAGR of 14.69%, while traditional funds had better minimum and maximum returns. Traditional funds showed lower volatility (std dev 9.40%), but ESG funds offered better downside protection with a lower downside deviation of 2.80%.In market alignment, traditional funds had higher beta and R-squared, while ESG funds slightly outperformed benchmarks with a higher alpha (0.37%). For risk-adjusted returns, traditional funds led in Sharpe and Treynor ratios, whereas ESG funds stood out in the Sortino ratio, reflecting better performance during market downturns. Overall, both fund types showed competitive results, but ESG funds proved slightly more resilient and consistent for long-term, sustainability-focused investors.

Table 2 - Performance Analysis Metrics Of Esg And Traditional Funds Of Us And Uk

Metrics	**US**			**UK**		
	ESG	**Traditional**	**Better Performer**	**ESG**	**Traditional**	**Better Performer**
Return Metrics						
Absolute Return (%)	81.53	131.18	Traditional	87.481	48.87	ESG
CAGR (%)	9.65	12.27	Traditional	9.904	6.82	ESG
Min Return (%)	-6.25	-5.35	Traditional	-2.62	-4.93	ESG
Max Return (%)	23.73	26.75	Traditional	21.03	11.07	ESG
Absolute Risk Metrics						
Std Dev (%)	13.743	13.84	ESG	9.871	7.21	Traditional
Max Drawdown (%)	-0.27	-0.25	ESG	-0.16	-0.19	ESG
Downside Deviation (%)	3.87%	3.85%	Traditional	2.50%	2.49%	Traditional
Relative Risk Metrics						
Beta	1.01	1.02	ESG	0.6	0.55	ESG
Alpha	-0.22%	-0.03%	Traditional	0.60%	0.35%	ESG
Value at Risk (5%)	-8.66%	-8.64%	Traditional	-5.18%	-5.13%	Traditional

R-Squared	94.07%	99.53%	Traditional	45.10%	48.12%	Traditional
Risk-Adjusted Return Metrics						
Sharpe Ratio	0.1	0.14	Traditional	0.13	0.07	ESG
Sortino Ratio	0.17	0.23	Traditional	0.2	0.14	ESG
Treynor Ratio	0.54%	0.75%	Traditional	0.75%	0.46%	ESG

In the US, traditional funds outperformed ESG funds across most return and risk- adjusted metrics, with higher Absolute Return (131.18%) and CAGR (12.27%) compared to ESG funds (81.54% and 9.65%). They also had higher Sharpe, Sortino, and Treynor ratios which showed a stronger benchmark position. Though both funds exhibited same risk trends during the study period, ESG funds have positioned better than the traditional funds.

On the other hand , UK's ESG funds have outpaced traditional funds in return and risk- adjusted metrics. ESG funds have given higher Absolute Return of 87.48% and CAGR of 9.90% compared to its traditional funds with 48.87% and 6.82 respectively. Traditional funds have generated marginally lower risk than the ESG funds. ESG funds have produced higher alpha, max drawdown, and higher Sharpe, Sortino, and Treynor ratios. This shows the better risk-adjusted performance and long-term growth potential.

It could be inferred from the analysis that the traditional funds outperformed the ESG funds in the US markets and on the other side ESG funds in UK have outpaced the traditional funds. One could consider the UK's ESG thematic funds for higher returns and stronger resilience.

Table 3 - Performance Analysis Metrics Of Esg And Traditional Funds Of Australia And Sweden

Metrics	Australia			Sweden		
	ESG	**Traditional**	**Better Performer**	**ESG**	**Traditional**	**Better Performer**
Return Metrics						
Absolute Return (%)	115.783	43.31	ESG	82.621	217.06	Traditional
CAGR (%)	11.065	3.64	ESG	8.102	16.39	Traditional
Min Return (%)	-5	-2.64	Traditional	-5.3	-7.62	ESG
Max Return (%)	26.26	11.27	ESG	30.68	39.25	Traditional
Absolute Risk Metrics						
Std Dev (%)	13.026	6.02	Traditional	14.102	19.16	ESG
Max Drawdown (%)	-0.21	-0.26	ESG	-0.25	-0.27	ESG
Downside Deviation (%)	2.88%	4.10%	ESG	3.51%	3.87%	ESG
Relative Risk Metrics						
Beta	0.49	1	Traditional	0.91	0.83	ESG
Alpha	0.72%	-0.12%	ESG	0.17%	0.83%	Traditional
Value at Risk (5%)	-5.91%	-7.12%	ESG	-7.41%	-8.35%	ESG
R-Squared	35.21%	64.65%	Traditional	77.24%	53.78%	ESG
Risk-Adjusted Return Metrics						
Sharpe Ratio	0.23	0.06	ESG	0.13	0.23	Traditional

Sortino Ratio	0.41	0.07	ESG	0.2	0.34	Traditional
Treynor Ratio	1.89%	0.30%	ESG	0.78%	1.79%	Traditional

In terms of absolute return and CAGR, the Australian ESG funds (115.78% & 11.07%) have outperformed their traditional funds (43.31% and 3.64%). On the other hand, the Swedish traditional funds have produced an absolute return of 217.06% and CAGR of 16.39%, compared to their ESG funds' 82.62% and 8.10%.

ESG funds in both countries had a better downside control. Australian ESG portfolios had lower max drawdown (-0.21%), downside deviation (2.88%), VaR (-5.91%), and beta (0.49) than their traditional funds. Swedish ESG funds were also less volatile with lower standard deviation (14.10%), drawdown (-0.25%), and VaR (-7.41%) compared to their traditional funds.

Higher Sharpe (0.23), Sortino (0.41), and Treynor (1.89%) ratios indicated that the risk-adjusted measures favored Australian ESG funds. In Sweden, the traditional funds had the advantage across aforesaid risk-adjusted measures. This supports the conventional wisdom of higher the risk leads to higher the return.

Table 4- Cross-Country Analysis

Metrics	**INDIA**	**US**	**UK**	**AUSTRALIA**	**SWEDEN**
Return Metrics					
Absolute Return (%)	ESG	Traditional	ESG	ESG	Traditional
CAGR (%)	ESG	Traditional	ESG	ESG	Traditional
Min Return (%)	Traditional	Traditional	ESG	Traditional	ESG
Max Return (%)	Traditional	Traditional	ESG	ESG	Traditional
Absolute Risk Metrics					
Std Dev (%)	Traditional	ESG	Traditional	Traditional	ESG
Max Drawdown (%)	Traditional	ESG	ESG	ESG	ESG
Downside Deviation (%)	ESG	Traditional	Traditional	ESG	ESG
Relative Risk Metrics					
Beta	Traditional	ESG	ESG	Traditional	ESG
Alpha	ESG	Traditional	ESG	ESG	Traditional
Value at Risk (5%)	ESG	Traditional	Traditional	ESG	ESG
R-Squared	Traditional	Traditional	Traditional	Traditional	ESG
Risk-Adjusted Return Metrics					

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Sharpe Ratio	Traditional	Traditional	ESG	ESG	Traditional
Sortino Ratio	ESG	Traditional	ESG	ESG	Traditional
Treynor Ratio	Traditional	Traditional	ESG	ESG	Traditional

The table-4 shows the comparison of various performance metrics applied on ESG and traditional funds across different countries. In India, traditional funds performed better than ESG funds. Altogether, the Indian traditional funds led in 8 out of 14 metrics. While, traditional funds had an edge in terms of higher returns and lower risk , ESG funds positioned strongly in selected risk-adjusted measures such as the Sortino ratio and Value at Risk.

The US traditional funds have outperformed the ESG funds. It could be observed from the table that the ESG funds have exhibited positive performance only 3 metrics, but the traditional funds performed better in 11 out of 14 metrics. This indicates that ESG investing positioned lower in the US when compared to conventional investment strategies.

UK and Australia's ESG funds have showed strong performance than their traditional funds. ESG funds of both the countries have outperformed traditional funds in 10 metrics signifying better results in terms of returns, risk management, and risk adjusted returns. This shows how ESG funds in UK and Australia have developed well than the other countries.

Sweden showed a well-balanced outcome, with both ESG and traditional funds performed equally good, each leading in 7 metrics. ESG funds performed better in areas such as risk control and alpha whereas traditional funds had an edge in return-based metrics.

In brief, the comparison made in the above table- 4 between the selected countries suggested that the ESG themed investing is more successful in UK and Australia, whereas the traditional funds dominating in the United States. India and Sweden depicted mixed performance, indicating that ESG investing in these regions is in the nascent stage.

5.Conclusion

From a theoretical perspective, several studies have attempted to include the ESG metrics in portfolio construction and asset pricing. This study have made an attempt to find out the financial competitiveness of ESG investment across Indian and global markets. The findings of this study observed that ESG investing has evolved into a successful alternative to traditional investments , still its financial advantage is not commonly recognized. One could notice from the analysis that return, risk (absolute and relative) and risk adjusted returns of the traditional funds have outpaced the ESG thematic funds in US during the study period. On the other side the ESG funds in UK and Australia have outperformed the traditional funds in terms of all risk and returns metrics adopted in this study. On the contrary, India and Sweden's traditional funds outpaced the ESG funds. This variation represented how the relative strength of ESG and traditional portfolios varied across the globe. It is indicated from the results of this study that ESG performance is market-specific, and investors could consider returns against risk tolerance and sustainability goals while choosing between ESG and traditional funds.

From a practical perspective, investors could follow a balanced approach by aligning ESG investments with their risk tolerance, return expectations, and sustainability preferences rather than considering ESG as a globally superior strategy.

Future research can be extended by incorporating longer time horizons, big datasets, and advanced analytical techniques. Sector-specific ESG performance and the impact of developing governance and regulatory policies would offer deeper insights into the long-term practicality of sustainable investing.

References

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

[2] O. B., Okoye, C. C., Ofodile, O. C., Odeyemi, O., Addy, W. A., & Ajayi-Nifise, A. O. (2024). Artificial intelligence in ESG investing: Enhancing portfolio management and performance. International Journal of Science and Research Archive, 11(1)
[3] Agliardi, E., Alexopoulos, I., & Karvelas, G. (2023). The environmental pillar of ESG and financial performance: A portfolio analysis. ScienceDirect.
[4] Alias, N. A. B. (2022). Comparative analysis: Traditional vs. socially responsible portfolios.
[5] Badía, G., Pina, V., & Torres, L. (2019). Financial performance of government bond portfolios based on environmental, social and governance criteria. Sustainability, 11(9)
[6] Beloskar, V. D., & Nageswara Rao, S. V. D. (2024). Screening activity matters: Evidence from ESG portfolio performance from an emerging market. International Journal of Finance and Economics, 29(3).
[7] Bermejo Climent, R., Garrigues, I. F. F., Paraskevopoulos, I., & Santos, A. (2021). ESG disclosure and portfolio performance. Risks, 9(10)
[8] Bouteska, A., Harasheh, M., & Esposito, G. (2025). Climate transition risk, ESG rating divergence and portfolio performance: Evidence from composite scores and climate-adjusted factor models. International Journal of Finance and Economics.
[9] Branch, M., Goldberg, L., & Hand, P. (2023). A guide to ESG portfolio construction.
[10] Cesarone, F., Martino, M. L., & Carleo, A. (2022). Does ESG impact really enhance portfolio profitability? Sustainability, 14(4).
[11] Das, N., Chatterjee, S., Sunder, A., & Ruf, B. (2018). ESG ratings and the performance of socially responsible mutual funds: A panel study. Journal of Finance Issues, 17(1)
[12] Davoodi, H., Fereydooni, F., & Rastegar, M. (2024). Can portfolio construction considering ESG still gain high profits? ScienceDirect.
[13] Kusno, J. I., Hartanto, F. T., & Trilaksono, T. (2024). ESG scores' impact on portfolio performance: Evidence from Indonesia. International Research Journal of Business Studies, 17(2),
[14] López Prol, J., & Kim, K. (2022). Risk-return performance of optimized ESG equity portfolios in the NYSE. Finance Research Letters, 50
[15] Macey, J. (2022). ESG investing: Why here? Why now?
[16] Merz, T. (2019). A conceptual framework to the ESG portfolio level. Journal of Sustainable Finance, 8(2), 105–122.
[17] Naffa, H., & Fain, M. (2020). Performance measurement of ESG-themed megatrend investments in global equity markets using pure factor portfolios methodology. PLoS ONE, 15(12).
[18] Pacelli, V., Pampurini, F., & Quaranta, A. G. (2023). Environmental, social and governance investing: Does rating matter? Business Strategy and the Environment, 32(1)
[19] Pedersen, L. H., Fitzgibbons, S., & Pomorski, L. (2022). Responsible investing: The ESG efficient frontier.
[20] Pollman, E. (2023). ESG meaning.
[21] Pramitasari, D. A. (2024). ESG investing: Evaluating the financial performance of sustainable portfolios. Equator Journal of Management and Entrepreneurship, 12(4)
[22] Romanko, O., Narayan, P. K., & Kwon, M. (2023). ChatGPT-based investment portfolio selection.
[23] Rubbaniy, G., Khalid, A., Samitas, A., & Ali, S. (2021). Are ESG stocks safe-haven during COVID-19?
[24] Samyukth, R. (2021). Impact of ESG rating of companies on portfolio performance. Shanlax International Journal of Management, 8(4).
[25] Sandu, D.-M. (2023). Is there any effect of ESG scores on portfolio performance in South Africa? Proceedings of the International Conference on Business Excellence, 17(1)
[26] Sandu, D.-M. (2024). The effect of ESG scores on portfolio performance: Evidence from Europe. Proceedings of the International Conference on Business Excellence, 18(1)
[27] Schanzenbach, M. M., & Sitkoff, R. H. (2020). ESG investing: Theory, evidence, and fiduciary principles.
[28] Short, J. A., & Ndlovu, G. (2025). Environmental, social, and governance (ESG) scores and portfolio performance: Evidence from South Africa. Journal of Applied Economics, 28(1).
[29] Sundaram, R. (2022). ESG investing: Theory and evidence.
[30] Suryomurti, W. (2018). Constructing an Islamic socially responsible investment (SRI) index: The case of Indonesia. Tazkia Islamic Finance and Business Review, 11(2)
[31] Tadoori, S., & Kiran, M. (2021). ESG portfolio vs. traditional portfolio analysis: A study of MSCI ESG indices.
[32] Verheyden, T., Eccles, R. G., & Feiner, A. (2016). ESG for all? The impact of ESG screening on return, risk, and diversification. Journal of Applied Corporate Finance, 28(2)

[33] Wang, F. (2024). The influence of ESG factors on portfolio performance based on the perspective of Markowitz portfolio theory. Advances in Economics, Management and Political Sciences, 121(1)
[34] Zehir, E., & Aybars, A. (2020). Is there any effect of ESG scores on portfolio performance? Evidence from Europe and Turkey. (2).
[35] World Bank, & United Nations. (2004). Who cares wins.