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Financial Performance of ESG-Classified Sustainable Mutual Funds: Evidence from Developing Countries during the COVID-19 Period

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Abstract: This study presents a comparative evaluation of ESG-classified sustainable mutual funds and matched conventional mutual funds across eight developing countries. The analysis uses monthly net asset value (NAV) data from Bloomberg, Treasury-bill data from central-bank sources, and Carhart four-factor values from Kenneth R. French's data library. The sample is restricted to active equity funds with at least six months of available observations; therefore, the findings should be interpreted in light of possible survivorship bias and uneven country-level sample sizes. Rather than directly measuring portfolio-company ESG scores, the study identifies sustainable funds through ESG product classification and compares them with two age-matched conventional funds for each ESG fund. Using raw return comparisons, CAPM alpha, Sharpe ratio, eSDAR, and Carhart's four-factor model, the study finds no uniform performance premium or penalty for ESG-classified funds across developing markets. The relative difference portfolios generally do not show statistically significant alphas after controlling for market, size, value, and momentum factors, although some ESG portfolios display significant absolute abnormal returns against their national benchmarks. During the COVID-19 period from March 2020 to February 2022, ESG-classified funds in China, Indonesia, and South Africa performed more favourably than their matched conventional peers, while Brazil and Thailand showed weaker market-adjusted performance. The results, therefore, support a country-specific and cautious interpretation: ESG classification may be associated with resilience in some developing markets, but it should not be treated as evidence of a general ESG performance advantage.

Keywords: ESG-classified Mutual Funds, COVID-19, Socially Responsible Investing, Sustainable Finance, Developing Countries, Comparative Performance

1. Introduction

In this modern era of globalization, marked by the pursuit of sustainable growth and development across economies, investors are increasingly attentive to sustainable performance with the financial performance (FP) of their investments (Gangaraju *et al.*, 2025; Singh *et al.*, 2025). The criteria of ESG have gained prominence as a widely used screening tool, particularly within various dimensions of Socially Responsible Investment (SRI) screening techniques (Li & Li, 2025).

Opponents of SRI contend that the inherent risk associated with a limited stock universe (Markowitz, 1952) and additional screening costs (Bauer *et al.*, 2007) diminish the financial benefits of SRI. Conversely, SRI proponents argue that sustainable performance can compensate for any sacrificed financial gains (Gantchev *et al.*, 2024).



Considering the arguments, the majority of the existing literature has explored the performance of screened investments across diverse countries (Petridis *et al.*, 2023; Hornuf & Yüksel, 2024). The Early inception in the 1980s of SRI-themed mutual funds (MF) in developed countries made their markets more mature, the legal environment more advanced, and the social disclosure framework more transparent (Fang & Parida, 2022) as compared to developing countries. Since 2016, ESG-theme investment demand has been increasing in other countries as well. Being new in this field, developing countries have only held three percent of global sustainable assets under management. Still, their potential cannot be ignored as they account for 23 percent of total global market capitalization (World Investment Report, 2024). There is hardly any research piece that has analyzed the performance specific to ESG MF and from developing countries (Petridis *et al.*, 2023).

The financial markets have changed in recent years as a result of the growing importance of ESG elements in investment decision-making. The incorporation of ESG factors into investment strategies indicates a wider trend in sustainable finance, where investors aim to attain not only financial gains but also constructive environmental and social effects (Kräussl *et al.*, 2024). In this regard, sustainable MF have become more well-known, giving investments in businesses with robust ESG policies a priority (Fang & Parida, 2022). Although a great deal of research has looked at the connection between ESG characteristics and FP in developed markets, there is still a significant knowledge gap about this relationship in the particular situation of some developing countries.

Further, the announcement of the COVID-19 pandemic by the World Health Organisation has witnessed turmoil in the financial markets across the world (Zhang *et al.* 2020). It is evident that market disturbance significantly increases (decreases) the likelihood of outperformance (underperformance) of responsible investment (Jawa *et al.* 2020). In light of this, it is imperative to comprehend the precise effects of COVID-19 on the performance of ESG MF (Petridis *et al.*, 2023). However, the pandemic brought with it hitherto unthinkable challenges that have had an impact on market dynamics, business behavior, and economic conditions. Thus, analyzing the performance of ESG MF throughout the pandemic is crucial to determining the adaptability and effectiveness of sustainable investing techniques during emergencies (Hornuf & Yüksel, 2024).

Businesses and investors have started reevaluating their objectives as countries struggled with the health crisis and its far-reaching effects, putting a greater focus on stakeholder engagement, resilience, and responsible governance. The necessity for sustainable investment methods that are resilient to systemic shocks has been brought to light by the pandemic, which has also highlighted the interdependence of environmental, social, and economic variables (Momparker *et al.*, 2025). Investors seeking both financial rewards and significant social impact have shown more interest in sustainable MF, which are centered on companies with strong ESG profiles, amid the turmoil caused by the pandemic (Kräussl *et al.*, 2024). These funds give preference to investments made in businesses with strong ESG policies. Nonetheless, given the pandemic's distinct effects on developing nations, there is still much to learn about the FP of sustainable MF in these areas.

This article contributes by narrowing the empirical focus to ESG-classified equity mutual funds domiciled in eight developing countries and by comparing them with age-matched conventional funds before and during the COVID-19 period. The contribution is therefore not that responsible investment performance in emerging markets is entirely unexplored; rather, it lies in combining country-level ESG fund portfolios, matched conventional fund portfolios, the ESG-minus-conventional difference portfolio, and a pandemic-window comparison in a single developing-country setting.

Because the available classification identifies funds as ESG products, the study uses the term ESG-classified sustainable mutual funds. It does not claim to observe the ESG scores of every underlying portfolio company unless such holdings-level ESG data are separately available. This clarification is important for interpreting the title, abstract, empirical results, and conclusions.

By addressing questions on financial performance, relative performance, and crisis-period behaviour, the study provides evidence that can inform investors, portfolio managers, and policymakers without assuming a universal ESG premium. The analysis recognises that developing countries differ in market maturity, regulation, sample depth, and pandemic timing; consequently, the discussion is presented in a country-specific manner rather than as a single broad conclusion for all developing markets.



RQ1: What is the financial performance of ESG-classified sustainable mutual funds in selected developing countries?

RQ2: Does the financial performance of ESG-classified sustainable mutual funds differ significantly from that of age-matched conventional mutual funds in the selected countries?

RQ3: How did the COVID-19 period affect the absolute and relative financial performance of ESG-classified mutual funds in the selected countries?

The objectives of this study are: (i) to evaluate the absolute financial performance of ESG-classified mutual funds in selected developing countries; (ii) to compare ESG-classified funds with age-matched conventional mutual funds using raw and risk-adjusted measures; and (iii) to assess whether the COVID-19 period changed the performance relationship between ESG-classified and conventional mutual funds.

The study consists of five sections, including the present one. The second section provides an extensive review of the existing literature on the concerned topic with the objectives of the study. Section three explains data development and the research methodology used to make analyses. In section four, the paper shows empirical findings and country-wise summarisation of the results. The final section concludes the study with implications.

2. Literature Review and Theoretical Framework

Since the inception of Socially Responsible Investments (SRIs) via MF in the 1980s, a vast body of literature has compared the performance of socially responsible MF with their conventional peers (Li & Li, 2025). Each new restriction imposed one extra filter, ultimately constraining investment managers and resulting in the elimination of stocks from the investment universe. Extra screening made the stock universe smaller and did not allow the benefit of diversification (Markowitz, 1952). However, the significance of this additional screening has sparked the interest of the research community to investigate the financial consequences of investing responsibly.

2.1 Performance of Socially Responsible Mutual Funds (SRMFs) across different countries

Among eminent literature, the first study done by Mueller (1991) performed a comparative analysis of 10 US-based ethical funds with conventional funds (CF) and found that ethical funds significantly underperform their conventional counterparts. Hamilton *et al.* (1993) made portfolios of 32 SRMFs from the US; their findings, based on CAPM, showed that SRMFs did not earn any significant excess return for 1981-1990. Goldreyer *et al.* (1997) examine the performance of 18 SRMFs domiciled in the US. According to their findings, SRI funds underperformed other funds; this could be attributed to their increased exposure to "small firms" risk rather than to standards of ethics. Statman (2000) and Bello (2005) both analyzed US-based SRMFs with a matching portfolio and found no difference in the performance of the two. Benson *et al.* (2006) examined a total of 42 experiments and found that SRMFs either significantly underperformed or performed similarly to the CF. However, Kempf & Osthoff (2008) showed no difference in the performance, while Derwall and Koedijk (2009) showed either outperformance or no difference between the performance of the two. Nofsinger & Varma (2014) Compare 240 Equity SRI MF with CF for 2000-2012. For the overall period, the alphas for SRI and CF were insignificantly negative and not different from each other, except for eight experiments out of 57 total experiments. Ito *et al.* (2013) evaluated the performance of SRI and environmental funds (EF) in the US, EU, and Japan from 2000 to 2009 and found that SRI funds outperformed CF in the EU and the US. In contrast, EF funds did not perform similarly to SRI but were equal to or superior to CF. Other studies, such as Bauer *et al.* (2005), Renneboog *et al.* (2008), Reboredo *et al.* (2017), Chang *et al.* (2018), and Das *et al.* (2018), performed analysis across different countries and showed mixed findings. Heterogeneity in SRI performance throughout Japan, Asia Pacific, Europe, and North America was explained by a recent study by Badia *et al.* (2020); it depends on screening intensity, is based on geography, and varies over time.

2.2 Performance of SRI In Developing Countries

The very first study conducted by Travers (1997) analyzed the performance of 23 SRI MF from Asia, Australasia, and Europe. Findings showed that SRI funds outperformed their conventional benchmarks. Subsequently, Chapple & Moon (2005) assessed SRI in seven major Asian economies: the Philippines, Singapore,



Malaysia, Thailand, Indonesia, South Korea, India, and South Korea. They found that the performance of SRI varied between these countries. The findings of [Tripathi & Bhandari \(2015\)](#), [Tripathi & Bhandari \(2016a\)](#), and [Tripathi & Bhandari \(2016b\)](#) from a comparative analysis showed a higher risk and significant outperformance of ethical funds over other funds and benchmark indices. [Jawa *et al.* \(2021\)](#) performed comparative analyses of the FP of energy companies and renewable energy companies from India. Their findings showed no significant difference in their performance. [Tripathi & Kaur \(2020\)](#) analyzed the performance of socially responsible investment in emerging BRICS countries.

For the overall study period, responsible portfolios from Brazil gave positive returns after adjusting for both systematic and unsystematic risks. During the financial crisis, responsible portfolios of India performed better compared to responsible portfolios from other BRICS nations. [Tripathi & Kaur \(2022\)](#) examined the responsible indices from India, China, the US, and the UK, and the findings show no significant difference in performance in the overall period. Moreover, the SRI strategy in emerging economies can provide safeguards during a market downturn.

2.3 Performance of SRIs during market turmoil and Covid-19

Primary studies, [Renneboog *et al.* \(2008\)](#), [Liedekerke *et al.* \(2007\)](#), [Nofsinger & Varma \(2014\)](#), [Muñoz *et al.* \(2014\)](#), and [Lesser *et al.* \(2015\)](#) separately perform experiments for depressed market conditions. [Liedekerke *et al.* \(2007\)](#) divide their sample period based on best and worst market conditions from Jan. 1995 to Dec. 2000 as bull market and Jan. 2001 to Dec. 2005 as bear market conditions. Further, [Nofsinger & Varma \(2014\)](#) and [Lesser *et al.* \(2015\)](#) identified two crisis periods: from Mar. 2000 to Oct. 2002, characterized as the technology bubble burst, and from Oct. 2007 to Mar. 2009, recognized as a global financial crisis. In addition to these crisis periods, [Muñoz *et al.* \(2014\)](#) also performed a comparative analysis of SRMFs during the sovereign risk crisis for European funds from Oct. 2009 to Jan. 2013.

[Renneboog *et al.* \(2008\)](#) conducted comparative analyses during the technology bubble burst period and found that SRMFs significantly underperformed in the pre-crisis period and performed similarly to their conventional peers during the crisis period. Other studies ([Liedekerke *et al.* 2007](#); [Muñoz *et al.* 2014](#); [Lesser *et al.* 2015](#)) showed similar findings. [Hornuf & Yüksel \(2024\)](#) and [Nofsinger & Varma \(2014\)](#) show the outperformance of SRMFs during periods of crises. [Renneboog *et al.* \(2008\)](#) explained that these companies are likely to be better managed and, hence, generate better risk-adjusted performance in unstable market conditions.

[Folger-la Ronde *et al.* \(2020\)](#) evaluated the performance of ethical exchange-traded funds (ETFs) based in Canada during the COVID-19 pandemic, and their findings showed underperformance. Similarly, [Sherif \(2020\)](#) found a negative impact of the COVID-19 pandemic on Shariah-compliant index performance. [Albuquerque *et al.* \(2020\)](#), on the other hand, investigated the performance of US stocks that are accountable. Results indicated that during this pandemic, stocks that were screened for environmental and social factors (ES) had much greater returns and decreased volatility ([Gupta *et al.*, 2024](#)). Using the event research approach, [Lee & Lu \(2021\)](#) conducted another study on the Taiwan stock exchange and discovered that businesses that practiced corporate social responsibility (CSR) fared better during the outbreak; their stock values rebounded more quickly and were comparatively resistant to the decline. The MSCI SRI Net Return Indexing for the global, US, Japanese, and European markets, as well as 24 ESG ETFs trading on the US market, were also analyzed ([Omura *et al.*, 2020](#)).

The findings suggested that responsible investment outperformed conventional investment during the market downturn. Additionally, they discovered that throughout the epidemic, all responsible indices' outperformance rose. The outperformance of SRI portfolios throughout the pandemic period was corroborated by another research by [Broadstock *et al.* \(2021\)](#). On the other hand, [Chiappini & Vento \(2021\)](#) demonstrated that while the pandemic had a negative effect on sustainable indicators from the US and Europe, they did not exhibit any appreciable aberrant returns. The most recent study done by [Jawa & Zamani \(2022\)](#) showed that sustainable indices from India performed similarly to conventional indices during the COVID-19 pandemic.

Thus, the literature does not suggest a wholly vacant research niche; rather, it suggests a more targeted niche. The literature includes studies that have investigated the performance of socially responsible funds and responsible indices, but fewer studies examine ESG-classified mutual funds and portfolios of matched conventional

funds, country-level evidence from emerging markets, and the COVID-19 period using both CAPM and Carhart factor controls. Our study is situated in this more credible space.

2.4 Theoretical Framework

The theories are applied for analysis rather than just context. Modern Portfolio Theory explains the anticipated risk-return implications of limited investment universes and diversification. ESG Integration Theory explains why ESG-based screening may lower downside risk and offer resilience as ESG attributes are proxies for superior governance, stakeholder relations, and risk management. Stakeholder Theory explains why national institutions, disclosure requirements, and stakeholder expectations may lead to diverse outcomes in emerging markets.

2.4.1 Modern Portfolio Theory (MPT)

Modern Portfolio Theory, developed by Harry Markowitz in the 1950s, revolutionized portfolio management by emphasizing the importance of diversification and risk-return trade-offs. MPT posits that investors seek to maximize returns while minimizing risk, achieving an optimal balance through efficient portfolio construction. Key principles of MPT include the risk-return relationship, efficient frontier, and diversification.

ESG screening can have two effects from the MPT view. A smaller investment universe can decrease diversification and risk-adjusted performance, but including environmentally and socially responsible companies can mitigate risks. This research, therefore, examines whether ESG funds outperform traditional funds in terms of returns, risk, and risk-adjusted returns, rather than an inherent ESG premium.

2.4.2 ESG Integration Theory

ESG Integration Theory offers the hypothesis that ESG-categorised funds may be more robust in times of uncertainty if the ESG-related practices are linked to improved governance, reduced operational risk, and effective stakeholder management. In this research, this theory is tested during the period of COVID-19 and the difference between ESG and non-ESG portfolios.

Many studies assume that governance (G) affects corporate performance, and that it is not influenced by environmental (E) and social (S) factors, and the ESG dimensions can provide further insights (Meiden & Silaban, 2023; David *et al.*, 2024). The ESG dimensions (E, S, and G) are also used individually to test the influence of environmental, social, and governance on the mutual funds' performance (Abate *et al.*, 2021; Lalthanliana *et al.*, 2024). This helps to determine if or how governance scores have a greater influence on portfolio performance than social and environmental factors (Abate *et al.*, 2024; Humphrey *et al.*, 2012). Consistent with the observation and the majority of previous research that underlines the role of governance in emerging markets, preliminary results show that the governance information indeed has a stronger association with fund returns in several developing markets (Fan *et al.*, 2011; Klapper & Love, 2004). It is an intervening variable and is acknowledged to be an important consideration when evaluating the strategies of ESG-based funds to avoid the risk of misinterpretation of "green" or sustainability-based performance with the governance performance (Jain & Mitra, 2025).

2.4.3 Stakeholder Theory

Stakeholder Theory advocates for businesses to consider the interests of all stakeholders, not just shareholders, in decision-making and value creation. According to this theory, businesses thrive when they actively manage relationships with stakeholders and create shared value for all parties involved. Key principles of Stakeholder Theory include multiple stakeholder interests, mutual value creation, and an ethical imperative.

Stakeholder Theory is used to interpret cross-country heterogeneity. If regulatory enforcement, disclosure quality, investor awareness, and stakeholder pressure differ across developing markets, the performance of ESG-classified funds should also differ by country. Therefore, the discussion avoids treating developing countries as a homogeneous group.



Accordingly, the hypotheses are reformulated to follow directly from the theoretical expectations and the empirical design:

H1: Based on MPT, ESG-classified mutual funds may differ from conventional mutual funds in risk-adjusted financial performance because ESG screening changes the investable universe and portfolio risk exposure.

H2: Based on Stakeholder Theory, the relative performance of ESG-classified mutual funds compared with conventional mutual funds is expected to vary across developing countries because market institutions, disclosure regimes, and stakeholder pressures differ.

H3: Based on ESG Integration Theory, ESG-classified mutual funds may show stronger relative resilience during the COVID-19 period if ESG-related fund classification captures firms or strategies with better downside-risk management.

3. Data and Research Methodology

3.1. Data Development

The authors obtained monthly NAV data from Bloomberg, Treasury-bill data from central-bank websites, and Carhart four-factor values from Kenneth R. French's data library. Our sample includes only active equity funds with at least six months of data. Because dead funds are not available in the Bloomberg sample downloaded here, there could be a "survivorship bias". This may lead to overstatement of performance if funds with bad performance were merged or liquidated before the data extraction. The ESG versus traditional funds analysis is less affected only if the risk of disappearance is the same for both types of funds, but this can be only partially verified and is therefore a limit of the analysis.

3.1.1. Screening Criteria for Sample Selection of ESG Mutual Funds

In order to create a portfolio of ESG-classified mutual funds for a number of developing countries, the authors apply the following Bloomberg classifications: (1) market status: active; (2) fund asset class: equity; (3) general attribute: ESG; (4) territory of domicile: country name; and (5) fund geographical focus, provided that relevant risk factor data is available. The classification is a product classification and should not be confused with an ESG holdings score.

A detail of the final sample of the ESG MF from developing countries is given in the following table 1. The final sample includes 155 ESG MF from developing countries. A glance shows that a total of 54 funds were launched during the COVID-19 pandemic.

Table 1. Detailed summary of the final sample of ESG mutual funds from developing countries

Country Name	ESG MF	% of Inception Following the Pandemic Year 2020	Data Available
Brazil	32	17(53.12%)	02:2006-02:2022
China	46	10(21.74%)	07:2010-02:2022
India	8	5(62.5%)	02:2002-02:2022
Indonesia	6	3(50%)	12:2017-02:2022
South Africa	10	7(70%)	02:2003-02:2022
South Korea	32	8(25%)	02:2002-02:2022
Taiwan	7	3(42.85%)	04:2007-02:2022
Thailand	14	1(07.14%)	11:2004-02:2022
Total	155	54(34.83%)	

Source: Author's Compilation from various sources



To evaluate the difference between the performance of ESG MF and their conventional peer, the author makes matching portfolios of conventional MF from respective developing countries.

3.1.2. Screening criteria for matching the portfolio of CF

To make the matching portfolio of CF, the authors used the following classifications: (1) market status: active, (2) fund assets class: equity, (3) general attribute (exclude): ESG, clean energy, environmentally friendly, and socially responsible, (4) territory of domicile: country name. The resultant sample contains 10845 conventional MF from developing countries. To see the details, please refer to Table 2.

Table 2. The details of the sample of conventional MF from Developing countries

Country Name	Total Conventional Funds	Select Sample
Brazil	3685	64
China	1795	92
India	897	16
Indonesia	438	12
South Africa	339	20
South Korea	2385	64
Taiwan	487	14
Thailand	819	28
Total	10845	310

Source: Author's Compilation

To make the matching portfolio of conventional funds, the study uses fund age as the primary matching criterion (Hamilton *et al.*, 1993; Bello, 2005; Chang & Witte, 2012), with two conventional funds matched to each ESG fund (Statman, 2000; Bello, 2005). This matching strategy improves comparability by fund vintage but does not fully control for fund size, expense ratio, turnover, investment mandate, or style exposure. The limitation is acknowledged explicitly, and the factor-model tests partially address style exposure through market, size, value, and momentum controls. Future robustness checks should repeat the matching with additional fund-level characteristics where data are available.

3.1.3. 'Difference' portfolio ($R_{ESG} - R_{Conv}$)

In order to investigate relative performance, this study also assesses an ESG-minus-conventional difference portfolio, calculated as $R_{ESG} - R_{Conv}$. A positive alpha for this portfolio indicates relative outperformance of ESG-classified funds after controls, whereas a negative alpha indicates relative underperformance.

3.1.4. Market benchmarks

To estimate market exposure, the authors use national equity indices as market benchmarks for each selected country (Bauer *et al.*, 2005). Monthly index values are downloaded from the websites of the respective stock exchanges. Where factor availability is regional rather than purely national, the study treats the factor estimates as approximations and interprets country-level alphas cautiously, especially when fund domicile, geographic focus, and factor-region coverage do not perfectly coincide.

3.2 Research Methodology

Firstly, the author computes the normal returns of MF using equation (1). Where R_F represents the monthly return of MF, NAV_1 represents the net asset value for the current month, and NAV_0 pertains to the net asset value for the previous month.



Table 3. Market Benchmark of Select Countries

Country Name	Market Benchmark	Overview
Brazil	IBOV Index	The Brazilian benchmark index is a value-weighted market proxy that replicates the performance of 84 stocks traded on the Sao Paulo Stock Exchange.
China	CSI 300 Index	CSI 300 comprises 300 stocks and is the performance indicator of the China stock market listed on the Shenzhen Stock Exchange.
India	Nifty 50 Index	Fifty stocks registered on the National Stock Exchange of India are represented by a value-weighted index.
Indonesia	JCI Index	The performance of every stock listed on the Indonesian Stock Exchange is displayed by the Jakarta Stock Price Index, a capitalization-weighted market index.
South Africa	JSE Index	All of the stocks registered on the Johannesburg Stock Exchange are included in this market capitalization-weighted index.
South Korea	KOSPI Index	The performance of every common stock listed on the Korean Exchange is represented by the Korean Composite Stock Price Index.
Taiwan	TAIEX Index	The Taiwan Capitalization Weighted Stock Index, or TWSE, is the index for companies listed on the Taiwan Stock Exchange.
Thailand	SET Index	All of the stocks listed on the Thailand Stock Exchange's main board are included in the market capitalization-weighted SET index.

Source: Author's Compilation

Next, the authors construct the equally weighted portfolio consisting of ESG MF for select countries, with each fund being equally weighted. To form the portfolio of ESG mutual funds for different countries, the author excludes MFs with less than six months of available data and countries with fewer than four ESG MFs.

$$RF = (NAV_1 - NAV_0) / NAV_0 \quad (1)$$

The corresponding conventional-fund portfolio is formed without applying ESG or sustainability screening. Although age-based matching follows prior studies, it is not a perfect counterfactual. Therefore, the reported estimates are interpreted as comparative evidence rather than causal proof that ESG classification alone drives performance differences.

To compare the raw returns of ESG MF with the returns of matched CF, the authors use a t-test.

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{s_2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \quad (2)$$

Where t stands for the t-value, x1 and x2 represent the mean returns of the two fund categories, n1 and n2 are the number of observations, and s2 is the pooled standard error (Bevans, 2020). Annualized returns are derived from monthly returns, and the interpretation of Sharpe ratios is supplemented by eSDAR because negative Sharpe ratios can be difficult to compare directly. Regression inferences should be read with caution unless standard errors are adjusted for serial correlation and heteroskedasticity in monthly returns.

3.2.1 Risk-Adjusted Performance

3.2.1.1 Capital Assets Pricing Model (CAPM)

Based on the Capital Assets Pricing Model (CAPM) of Mossin (1966), Lintner (1965a, b), and Sharpe (1964), the CAPM evaluates the performance of the portfolio. Jensen's alpha for single factors is determined by the study using CAPM (Hamilton *et al.* 1993; Bauer *et al.* 2006; Nofsinger & Varma, 2012; Chang *et al.* 2018). Jensen alpha, the model's intercept, is a metric that indicates how well or poorly the portfolio performs in comparison to a market benchmark.



$$R_{p,t} - R_{f,t} = \alpha + \beta (R_{m,t} - R_{f,t}) + \varepsilon \quad (3)$$

Where $R_{p,t}$ is the return of the portfolio in time t , $R_{f,t}$ stands for return on a risk-free deposit (T-bills), $R_{m,t}$ is the return of an equity market index, β is factor loading on the market portfolio, and α stands for Jensen's Alpha, introduced by Jensen (1968).

A well-diversified portfolio's exposure to systematic risk is thought to be well explained by CAPM (Markowitz, 1952). Measuring the risk-adjusted returns of a poorly diversified portfolio based solely on systematic risk is insufficient, though. Therefore, excess return is measured against every share of total variance using the Sharpe ratio (Sharpe, 1994).

$$\text{Sharpe Ratio} = \frac{R_p - R_f}{\sigma_p} \quad (4)$$

Where R_p represents returns on the portfolio, R_f represents the risk-free rate of return, and σ_p is the standard deviation of returns on the portfolio.

Statman (1987) and Modigliani and Modigliani (1997) developed a modified version of the Sharpe ratio called excess-Standard-Deviation-Adjusted-Return (eSDAR) to address the issue of negative Sharpe ratios or comparison between two negative Sharpe ratios. The equation is as follows.

$$\text{eSDAR} = R_f + \left\{ \frac{R_p - R_f}{\sigma_p} \right\} \sigma_m - R_m \quad (5)$$

Where σ_m and σ_p stands for the standard deviation of the market benchmark and portfolio return, respectively. eSDAR is the excess return of the portfolio over the return of the market benchmark for taking each unit of total risk associated with the respective portfolio (Statman, 2000).

3.2.2 Multi-Factors Model

To find out if the ESG MF is giving abnormal returns or not in any select developing country, the study uses Carhart's multi-factor model (Carhart, 1996). Also, the selected model better explains the MF returns by diminishing the pricing error of CAPM (Fama and French, 1993, 1996; Chan et al., 1996) and also capturing the momentum anomaly (Jegadeesh & Titman, 1993). The four risk factors of the model give factor loadings that explain the proportion of the mean returns due to four widely used investment strategies. The equation of the model is given as follows:

$$R_{p,t} - R_{f,t} = \alpha + \beta_0 (R_{m,t} - R_{f,t}) + \beta_1 \text{SMB}_t + \beta_2 \text{HML}_t + \beta_3 \text{Mom}_t + \varepsilon \quad (6)$$

Where the three additional risk proxies named as Size (SMB)_t = return of small-cap portfolio minus return of large-cap portfolio at time t ; book-to-market (HML)_t = return of value stocks (high book-to-market ratio) portfolio minus return of growth stocks (low book-to-market ratio) portfolio at time t ; and momentum factors (Mom)_t = return of a portfolio of past 12 months winners minus return of a portfolio of past 12 months losers at time t .

3.2.2. Performance of ESG MF during Covid-19

This study examines the performance of ESG-classified mutual funds during the COVID-19 period from March 2020 to February 2022. The dummy variable equals 1 during this period and 0 otherwise. The approach provides a comparable crisis-window test across countries, but it is necessarily coarse because pandemic shocks differed in timing, intensity, policy response, and market recovery across countries. The COVID-19 results should therefore be interpreted as period-based associations rather than as a precise event-study estimate.

$$R_p = \alpha + \beta \text{Covid} - 19 \quad (7)$$

The interpretation of this equation is that the simple model investigates whether the existence of COVID-19, which is usually a dummy variable, directly affects fund returns.

Where R_p is the return of the mutual fund portfolio, α is the baseline return when the COVID-19 dummy equals 0, and γ is the coefficient measuring the average return difference during the COVID-19 period.

$$R_p = \alpha + \beta M (R_{m,t} - R_{f,t}) + \gamma \text{COVID}t + \varepsilon t \quad (8)$$

Interpretation of this equation accounts for market-wide fluctuations; this model incorporates a market return adjustment.

Where $(R_{m,t} - R_{f,t})$ is the excess market return, βM is market sensitivity, and $\gamma \text{COVID}t$ captures the additional pandemic-period effect after controlling for market-wide movements.



$$R_p = \alpha + \beta M (R_{m,t} - R_{f,t}) + \beta S SMB_t + \beta H HML_t + \beta W WML_t + \gamma COVID_t + \varepsilon_t \quad (9)$$

This is the Fama-French three-factor model plus momentum, with the explanatory variable COVID-19 added.

Where SMB_t is the size factor, HML_t is the value factor, WML_t is the momentum factor, and γ COVID_t measures the additional COVID-19-period association after controlling for standard risk factors. Distinct coefficient labels are used to avoid confusing factor loadings with the pandemic coefficient.

4. Results and Discussion

The descriptive statistics in Table 4 show mixed performance across countries. ESG-classified funds report higher average annual returns than matched conventional funds in Indonesia, South Africa, South Korea, Taiwan, and Thailand, but lower returns in Brazil, China, and India. However, the t-statistics do not show a statistically significant raw-return difference in any country. Therefore, the descriptive results do not support a general ESG performance premium; they instead indicate country-specific variation with many statistically insignificant differences.

Table 4. Descriptive Statistics of MF from Developing Countries

Countries	Annual Return %	SD%	Sharpe Ratio%	eSDAR%	t-stats
Brazil					
ESG	1.07	9.14	-8.18	0.42	-0.14
Conventional	2.92	12.21	-4.86	0.57	
China					
ESG	2.66	7.70	-0.14	0.03	-0.14
Conventional	4.07	5.79	1.85	0.08	
India					
ESG	12.73	7.62	7.12	0.35	-0.21
Conventional	14.48	7.32	9.40	0.43	
Indonesia					
ESG	-1.10	7.68	-5.98	0.12	0.18
Conventional	-3.99	5.84	-11.99	-0.06	
South Africa					
ESG	9.07	7.84	2.08	0.36	0.55
Conventional	5.23	4.13	-3.81	0.18	
South Korea					
ESG	1.82	7.89	-1.20	-0.04	0.33
Conventional	-0.94	7.62	-4.26	-0.14	
Taiwan					
ESG	6.97	6.21	8.06	0.06	0.80
Conventional	0.71	6.16	-0.34	-0.17	
Thailand					
ESG	9.98	6.70	9.59	0.22	0.06
Conventional	9.52	6.24	9.67	0.22	

Source: Author's Compilation

*** p<0.01, ** p<0.05, *p<0.1



Table 5 reports the CAPM results. The ESG-minus-conventional difference portfolio shows significant relative underperformance only in Brazil, while most other countries do not show significant relative alpha. This distinction is important: a significant alpha for an ESG portfolio against its national benchmark is an absolute performance result, whereas a significant alpha for the difference portfolio is evidence of relative performance against matched conventional funds.

Table 5. Mutual funds' performance using the 1-factor CAPM model

Country	Alpha	Market	R-Square(adj)
Brazil			
ESG	0.10***(5.58)	1.97***(63.36)	0.95
Conventional	0.17***(4.93)	2.55***(41.06)	0.90
Difference	-0.08**(-2.11)	-0.58***(-8.33)	0.26
China			
ESG	0.01(0.12)	2.01***(14.08)	0.59
Conventional	0.02(0.92)	1.84***(30.69)	0.87
Difference	-0.01(-0.29)	0.17(1.29)	0.00
India			
ESG	0.09***(5.23)	2.11***(50.09)	0.91
Conventional	0.11***(4.77)	1.95***(36.16)	0.84
Difference	-0.02(-0.06)	0.16**(2.53)	0.03
Indonesia			
ESG	0.03(1.08)	2.56***(27.76)	0.94
Conventional	-0.02(-0.50)	1.86***(17.49)	0.86
Difference	0.05(1.22)	0.70*** (5.55)	0.38
South Africa			
ESG	0.09***(2.07)	1.89***(16.70)	0.55
Conventional	0.02(1.46)	1.18***(27.39)	0.77
Difference	0.06(1.48)	0.71***(6.13)	0.14
South Korea			
ESG	-0.01(-0.35)	2.09***(24.14)	0.71
Conventional	-0.04(-1.2)	2.02***(24.12)	0.71
Difference	0.03(1.14)	0.07(1.16)	0.00
Taiwan			
ESG	0.02(0.74)	1.85***(17.65)	0.64
Conventional	-0.03(0.70)	1.46***(10.95)	0.40
Difference	0.06(1.53)	0.39***(3.48)	0.06
Thailand			
ESG	0.06***(4.73)	2.20***(61.50)	0.95
Conventional	0.06***(4.17)	2.03***(53.13)	0.93
Difference	0.00(0.21)	0.17***(3.75)	0.06

Source: Author's Compilation

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$



Table 6 presents the Carhart four-factor results. After controlling for market, size, value, and momentum exposures, the ESG-minus-conventional difference portfolios generally show insignificant alphas. This means that, in relative terms, ESG-classified funds do not consistently outperform or underperform matched conventional funds once investment-style exposures are considered. At the same time, some ESG portfolios show significant absolute alphas against benchmarks, and these absolute results should not be confused with relative ESG-versus-conventional performance.

Table 6. Mutual Funds performance using the 4-factors Carhart (1997) model

Country/ Fund Portfolio	Alpha	Market	SMB	HML	WML	R-Square
Brazil						
ESG	0.012*** (5.18)	2.039*** (55.16)	0.001 (0.60)	-0.001 (-1.45)	0.001*** (2.72)	0.96
Conventional	0.020*** (3.62)	2.510*** (33.35)	-0.001 (-0.56)	0.003* (1.92)	0.002 (1.36)	0.90
Difference	-0.048 (-1.08)	-0.465*** (-5.57)	0.001 (0.76)	-0.005** (-2.54)	0.000 (-0.12)	0.29
China						
ESG	-0.048 (-0.73)	2.054*** (14.42)	0.006** (2.35)	0.002 (0.99)	0.003 (1.57)	0.62
Conventional	0.012 (0.73)	1.819*** (30.51)	0.002* (1.96)	0.002* (1.84)	0.000 (-0.41)	0.88
Difference	-0.060 (-1.10)	0.235* (1.75)	0.004 (1.61)	0.001 (0.23)	0.004* (1.84)	0.07
India						
ESG	0.120*** (5.97)	2.13*** (47.68)	0.002* (1.89)	-0.002** (-2.27)	-0.001** (-1.98)	0.91
Conventional	0.096*** (3.80)	1.913*** (33.13)	0.001 (0.90)	0.002** (2.08)	-0.001 (-0.88)	0.85
Difference	0.024 (0.72)	0.215*** (3.29)	0.001 (0.50)	-0.004*** (-3.39)	0.000 (-0.58)	0.07
Indonesia						
ESG	0.048 (1.24)	2.55*** (24.66)	-0.002 (-1.00)	0.000 (-0.22)	-0.001 (-0.74)	0.94
Conventional	-0.024 (-0.53)	1.911*** (16.78)	-0.005 ** (-2.49)	0.000 (-0.02)	0.001 (0.33)	0.88
Difference	0.072 (1.34)	0.636*** (4.54)	0.003 (1.29)	0.000 (-0.15)	-0.002 (-0.82)	0.42
South Africa						
ESG	0.072 (1.52)	1.750*** (13.99)	0.001 (0.40)	0.005** (2.27)	-0.002 (-1.53)	0.57
Conventional	0.036** (2.01)	1.163*** (24.75)	0.002** (2.30)	0.000 (0.32)	0.002*** (-2.97)	0.78
Difference	0.036 (0.74)	0.587*** (4.53)	-0.001 (-0.45)	0.004** (2.08)	-0.001 (-0.41)	0.16
South Korea						
ESG	-0.048 (-1.24)	2.108*** (23.66)	0.005*** (2.87)	0.003** (1.99)	0.001 (1.01)	0.72
Conventional	-0.084**	1.956***	0.000	0.006***	0.000	0.73



	(-2.38)	(22.95)	(0.31)	(4.00)	(0.09)	
Difference	0.036 (0.002)	0.152** (2.39)	0.004*** (3.61)	-0.003** (-2.57)	0.001 (1.30)	0.09
Taiwan						
ESG	0.012 (0.49)	1.839*** (16.75)	-0.005*** (-2.80)	0.001 (0.77)	0.000 (0.19)	0.65
Conventional	-0.048 (-1.01)	1.300*** (9.64)	-0.005** (-2.29)	0.006*** (3.18)	-0.001 (-1.01)	0.47
Difference	0.060 (1.65)	0.539*** (4.68)	0.000 (0.01)	-0.005*** (-3.00)	0.002 (1.37)	0.14
Thailand						
ESG	0.048*** (3.70)	2.202*** (57.52)	0.000 (0.43)	0.001 (1.06)	0.001 (1.23)	0.95
Conventional	0.060*** (3.93)	2.072*** (51.46)	-0.001 (-0.82)	-0.001* (-1.95)	0.001 (1.42)	0.94
Difference	-0.012 (-0.35)	0.130*** (0.047)	0.001 (1.05)	0.002** (2.52)	0.000 (-0.22)	0.10

Source: Author's Compilation

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 7 summarizes the COVID-19-period evidence. The results suggest that ESG-classified funds in China, Indonesia, and South Africa performed more favourably than matched conventional funds during the pandemic window, while Brazil and Thailand show weaker market-adjusted ESG performance. Because the COVID-19 dummy covers a long and heterogeneous period, these results are interpreted as evidence of country-specific pandemic-period resilience rather than as proof of a universal ESG crisis premium.

Table 7. Test the impact of COVID-19 on the mutual fund performance

Country/ Fund Portfolio	ESG		Conventional		ESG-Conventional	
	Pre-Covid-19	Covid-19	Pre-Covid-19	Covid-19	Pre-Covid-19	Covid-19
Brazil						
Average Return	-0.084 (-0.95)	-0.156 (-0.31)	-0.072 (-0.59)	-0.108 (-0.10)	-0.012 (-0.28)	-0.120 (-0.77)
CAPM Alpha	0.108*** (6.14)	-0.012** (-2.14)	0.180*** (4.93)	-0.084 (-0.90)	-0.072* (-1.70)	-0.156 (-0.78)
Carhart 4-Factor Alpha	0.108*** (5.76)	-0.024*** (-2.65)	0.144*** (3.83)	0.012 (-1.28)	-0.036 (-0.91)	-0.060 (-0.51)
China						
Average Return	-0.072 (-0.85)	0.348** (2.03)	-0.012 (-0.21)	0.144 (0.99)	-0.060 (-1.15)	0.204** (2.11)
CAPM Alpha	-0.048 (-0.94)	0.288** (2.52)	0.012 (0.28)	0.084 (1.35)	-0.060	0.192**
Carhart 4-Factor Alpha	-0.072 (-1.27)	0.192** (2.02)	0.012 (0.47)	0.060 (0.85)	-0.084 (1.75)	0.132* (-1.55)
India						
Average Return	0.060 (0.87)	0.168 (0.56)	0.072 (1.24)	0.156 (0.42)	-0.024 (-0.75)	0.012 (0.36)
CAPM Alpha	0.096*** (5.02)	0.072 (-0.39)	0.108*** (4.70)	0.060 (-0.59)	-0.012 (-0.65)	0.012 (0.25)
Carhart 4-Factor Alpha	0.120	0.108	0.096***	0.048	0.012	0.048



	(5.86)	(-0.28)	(3.86)	(-0.71)	(0.59)	(0.44)
Indonesia						
Average Return	-0.120 (-0.67)	0.012 (0.52)	-0.204 (-1.52)	0.048 (1.31)	0.084 (1.13)	-0.036 (-1.08)
CAPM Alpha	0.096** (2.14)	-0.024* (-1.93)	-0.048 (-1.02)	0.024 (0.95)	0.144** (2.50)	-0.048** (-2.28)
Carhart 4-Factor Alpha	0.084* (1.92)	-0.024 (-1.56)	-0.072 (-1.33)	0.048 (1.58)	0.156** (2.61)	0.072** (-2.54)
South Africa						
Average Return	-0.024 (-0.37)	0.396** (2.08)	-0.024 (-0.74)	0.036 (0.61)	0.000 (0.03)	0.348** (2.37)
CAPM Alpha	0.060 (1.38)	0.300* (1.77)	0.024* (1.67)	-0.024 (-0.90)	0.036 (0.73)	0.324** (2.07)
Carhart 4-Factor Alpha	0.048* (1.03)	0.288* (1.80)	0.036** (2.17)	-0.012 (-0.90)	0.012 (0.20)	0.300** (2.07)
South Korea						
Average Return	-0.024 (-0.45)	0.156 (0.85)	-0.048 (-0.84)	0.084 (0.67)	0.024 (0.92)	0.072 (0.53)
CAPM Alpha	-0.012 (-0.44)	0.024 (0.35)	-0.036 (-1.16)	-0.036 (0.01)	0.024 (0.94)	0.060 (0.47)
Carhart 4-Factor Alpha	-0.048 (-1.19)	-0.060 (-0.07)	-0.084** (-2.25)	-0.108 (-0.25)	0.036 (1.35)	0.060 (0.23)
Taiwan						
Average Return	0.036 (0.54)	0.240 (1.27)	-0.024 (-0.39)	0.132 (0.95)	0.060 (1.38)	0.108 (0.49)
CAPM Alpha	0.024 (0.65)	0.036 (0.11)	-0.036 (-0.65)	-0.036 (-0.01)	0.048 (1.38)	0.060 (0.12)
Carhart 4-Factor Alpha	0.012 (0.39)	0.036 (0.28)	-0.048 (-0.96)	-0.048 (-0.01)	0.060 (1.50)	0.084 (0.28)
Thailand						
Average Return	0.072 (1.30)	0.072 (0.00)	0.072 (1.32)	0.072 (-0.03)	0.000 (0.23)	0.000 (0.10)
CAPM Alpha	0.072*** (5.08)	0.000* (-1.79)	0.06*** (4.51)	-0.012* (-1.66)	0.000 (0.20)	0.000 (-0.01)
Carhart 4-Factor Alpha	0.06*** (4.14)	-0.024** (-2.09)	0.06*** (4.21)	-0.012 (-1.55)	0.000 (-0.25)	-0.012 (-0.36)

Source: Author's Compilation

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

4.1 Country-wise Outcomes Compilation

Consistent with prior evidence that the performance of sustainable funds is heterogeneous across markets and may become more pronounced under stressed conditions, the present results do not support a uniform ESG premium across developing countries (Petridis et al., 2023; Hornuf & Yüksel, 2024). Instead, the evidence points to country-specific differences in raw returns, factor-adjusted performance, and pandemic-period resilience.

Brazil presents the clearest case of relative weakness among the sampled markets. Although the ESG-classified portfolio reports lower volatility than the matched conventional portfolio, it also delivers a lower average annual return. Both portfolios generate positive and significant absolute CAPM alphas, yet the ESG-minus-conventional portfolio shows significant underperformance in the single-factor specification. That relative



underperformance is no longer significant once market, size, value, and momentum exposures are introduced through the Carhart model, indicating that the apparent gap is at least partly attributable to factor composition rather than to ESG classification alone. The factor estimates also suggest that the ESG portfolio is less value-oriented than the matched conventional portfolio. During the COVID-19 window, the Brazilian ESG portfolio loses its earlier absolute strength and records weaker market- and factor-adjusted performance, offering no evidence of crisis-period resilience in this setting.

A different pattern is observed in China. Descriptive statistics indicate lower average returns for ESG-classified funds than for conventional peers, but the raw-return difference is not statistically significant. The full-sample CAPM and Carhart estimations likewise do not show a significant relative alpha for the ESG-minus-conventional portfolio. Even so, the Chinese ESG portfolio appears strongly exposed to market movements and displays a positive loading on the size factor, suggesting greater participation in smaller-cap stocks than the matched conventional portfolio. The pandemic period is where China becomes distinctive: ESG-classified funds perform more favorably than conventional peers during COVID-19, which suggests that ESG classification may have been associated with relative resilience in this market.

The Indian evidence points to broad performance parity rather than ESG leadership. Compared with the conventional portfolio, ESG-classified funds show similar volatility but somewhat lower raw and descriptive risk-adjusted returns. At the same time, both portfolios produce significant positive absolute alphas in the CAPM and Carhart estimations. The difference portfolio, however, remains statistically insignificant, implying that ESG-classified and conventional funds perform similarly after benchmark and factor adjustment. The multi-factor results further indicate that the ESG portfolio is relatively less value-oriented than its conventional counterpart. No meaningful ESG advantage emerges during the COVID-19 period, and the results therefore support a conclusion of relative equivalence rather than outperformance.

In Indonesia, the descriptive evidence is weak in absolute terms but more favorable in relative terms. Both fund categories post poor raw-return performance, yet the ESG portfolio performs less poorly than the conventional portfolio. Full-sample CAPM and Carhart estimations do not yield a significant relative alpha for the ESG-minus-conventional portfolio, so the evidence does not justify a claim of persistent ESG outperformance over the entire sample period. Even so, the COVID-19 analysis points to stronger relative performance by ESG-classified funds during the pandemic window. This result suggests that, while ESG classification did not generate a stable full-period premium, it may have offered some protection under crisis conditions in the Indonesian market.

South Africa stands out for relatively strong descriptive performance by the ESG portfolio. ESG-classified funds report higher average annual returns than conventional peers, albeit with greater volatility, and they also exhibit stronger descriptive risk-adjusted measures. The CAPM results show a significant positive absolute alpha for the ESG portfolio, but the relative alpha of the ESG-minus-conventional portfolio remains insignificant, which means that superior absolute performance should not be conflated with statistically verified relative outperformance over matched conventional funds. The Carhart estimates indicate a positive value loading for the ESG portfolio, not a growth tilt. During the COVID-19 period, however, ESG-classified funds perform more favorably than their conventional counterparts, making South Africa one of the markets in which ESG classification appears most closely associated with crisis-period resilience.

For South Korea, the results are more moderate. ESG-classified funds achieve somewhat better descriptive performance than conventional peers while exhibiting broadly similar volatility, but none of these differences is statistically significant. The CAPM and Carhart models likewise fail to produce a significant relative alpha for the ESG-minus-conventional portfolio, reinforcing the view that the two categories perform similarly over the full period. Factor loadings nonetheless reveal a meaningful compositional difference: the ESG portfolio tilts more toward small-cap stocks and is somewhat less value-oriented than the matched conventional portfolio. Pandemic-period estimates do not reveal a significant relative ESG advantage.

Taiwan offers one of the strongest descriptive profiles for ESG-classified funds, but the inferential results remain cautious. ESG funds post higher average annual returns and better descriptive risk-adjusted measures than conventional funds, yet the raw-return difference is not statistically significant. Once benchmark and style controls are applied, the ESG-minus-conventional portfolio still does not generate a significant relative alpha. Both portfolios exhibit a large-cap orientation, while the conventional portfolio shows a clearer value tilt than the ESG portfolio. Accordingly, the Taiwanese evidence is better interpreted as descriptive strength without robust statistical confirmation of superior relative performance. Although ESG funds appear to fare somewhat better during the COVID-19 period, the relative advantage is not statistically significant.

Thailand, finally, displays the closest similarity between ESG-classified and conventional funds. The two portfolios report nearly identical annual returns and comparable risk-adjusted measures in the descriptive analysis. In both the CAPM and Carhart models, each portfolio generates significant positive absolute alpha against the benchmark, but the ESG-minus-conventional portfolio remains insignificant. This indicates that ESG-classified funds



perform broadly in line with their matched conventional peers rather than outperforming them. The factor structure suggests only a limited distinction between the two groups, with some evidence that the ESG portfolio is relatively more value-oriented than the conventional portfolio. During the COVID-19 period, both categories weaken on a market-adjusted basis, and no reliable relative ESG advantage is observed.

Taken together, the country-level results reinforce the central conclusion of the study: ESG classification is not associated with a universal return premium across developing markets. Instead, the evidence supports a more nuanced interpretation in which ESG-classified funds often perform comparably to conventional peers over the full sample, while showing relatively stronger resilience in selected markets during the COVID-19 period. This pattern is broadly in line with the literature arguing that the performance consequences of sustainable investing are context-dependent and may become more visible during episodes of market stress (Nofsinger & Varma, 2014; Broadstock *et al.*, 2021).

4.2 Implications of this Study

Taken together, the results do not show a uniform cost or benefit of ESG-classified mutual fund investment in developing countries. The more defensible implication is that ESG-classified funds can perform comparably to conventional funds in many settings and may provide relative resilience in selected countries during the COVID-19 period. Policy and investment conclusions should therefore be country-specific and should reflect the statistical insignificance of many comparisons.

For individual investors and portfolio managers, the findings suggest that ESG-classified mutual funds need not be excluded on the assumption of an automatic financial penalty. However, the evidence does not justify a blanket claim that ESG funds always outperform. Portfolio decisions should consider country, fund style, volatility, expense structure, market exposure, and the investor's sustainability preferences. The study supports careful ESG integration as a risk-management and product-differentiation strategy, especially in markets where ESG classification is supported by credible disclosure and governance standards. However, managers should validate ESG claims through holdings-level analysis and should not rely solely on product labels. For policymakers, the findings highlight the importance of transparent ESG disclosure, reliable fund classification, and comparable reporting standards. Since the results vary across countries, policy interventions should focus less on promising superior returns and more on improving information quality, preventing greenwashing, and enabling investors to evaluate sustainability claims accurately.

ESG investing encourages social responsibility by coordinating corporate objectives with the general welfare of the community (Becchetti *et al.*, 2022; Baid & Jayaraman, 2022). It encourages businesses to think about how they affect things like community development, worker rights, and climate change (Torres *et al.*, 2023; Makarenko *et al.*, 2023). Better working conditions, more sustainable products, and increased environmental protection are just a few of the positive social changes that can result from this move toward ethical economic practices (Jackson, 2011; Westley & Vredenburg, 1996; Seth *et al.*, 2025).

5. Conclusions, Limitations, and Scope of Future Opportunities

Over the last decade, sustainable investment has expanded in developing countries, but this study shows that the financial performance of ESG-classified mutual funds is heterogeneous rather than uniformly superior. Based on 155 ESG-classified mutual funds across eight developing countries and matched conventional funds, the raw-return comparisons generally reveal no statistically significant difference between ESG and conventional portfolios. The descriptive evidence indicates higher ESG returns in some countries and lower returns in others, but these differences are usually not significant.

An important interpretive distinction is maintained throughout the revised discussion. ESG portfolios in Brazil, India, South Africa, and Thailand show significant absolute abnormal returns in some model specifications, but the ESG-minus-conventional difference portfolios are generally insignificant after Carhart four-factor controls. Therefore, the study concludes that ESG-classified funds often perform comparably to matched conventional funds, rather than claiming consistent relative outperformance.

During the COVID-19 period, ESG-classified funds show favourable relative performance in China, Indonesia, and South Africa, while Brazil and Thailand display weaker market-adjusted ESG performance. These results are consistent with ESG Integration Theory only in selected country contexts. The evidence should be read as country-specific pandemic-period resilience, not as a universal ESG advantage across all developing markets.

The study is limited by the use of active funds only, which may introduce survivorship bias; short histories and small ESG samples in some countries; uneven country-level sample sizes; reliance on ESG product classification rather than direct holdings-level ESG scores; age-based matching without full control for fund size, expenses,



turnover, and mandate; and a broad COVID-19 dummy that may not capture country-specific policy timing or market phases. Future research should incorporate dead funds, holdings-level ESG scores, richer matching methods, alternative crisis windows, country-specific pandemic phases, and heteroskedasticity- and autocorrelation-consistent standard errors.

References

- Abate, G., Basile, I., Ferrari, P. (2021). The level of sustainability and mutual fund performance in Europe: An empirical analysis using ESG ratings. *Corporate Social Responsibility and Environmental Management*, 28(5), 1446-1455. <https://doi.org/10.1002/csr.2175>
- Abate, G., Basile, I., Ferrari, P. (2024). The integration of environmental, social and governance criteria in portfolio optimization: An empirical analysis. *Corporate Social Responsibility and Environmental Management*, 31(3), 2054-2065. <https://doi.org/10.1002/csr.2682>
- Albuquerque, R., Koskinen, Y., Yang, S., & Zhang, C. (2020). Resiliency of environmental and social stocks: An analysis of the exogenous COVID-19 market crash. *The Review of Corporate Finance Studies*, 9(3), 593-621. <https://doi.org/10.1093/rcfs/cfaa011>
- Badía, G., Cortez, M.C., Ferruz, L. (2020). Socially responsible investing worldwide: Do markets value corporate social responsibility?. *Corporate Social Responsibility and Environmental Management*, 27(6), 2751-2764. <https://doi.org/10.1002/csr.1999>
- Baid, V., Jayaraman, V. (2022). Amplifying and promoting the "S" in ESG investing: the case for social responsibility in supply chain financing. *Managerial Finance*, 48(8), 1279-1297. <https://doi.org/10.1108/MF-12-2021-0588>
- Bauer, R., Derwall, J., Otten, R. (2007). The ethical mutual fund performance debate: New evidence from Canada. *Journal of business ethics*, 70(2), 111-124. <https://doi.org/10.1007/s10551-006-9099-0>
- Bauer, R., Koedijk, K., Otten, R. (2005). International evidence on ethical mutual fund performance and investment style. *Journal of banking & finance*, 29(7), 1751-1767. <https://doi.org/10.1016/j.jbankfin.2004.06.035>
- Bauer, R., Otten, R., Rad, A.T. (2006). Ethical investing in Australia, is there a financial penalty?. *Pacific-Basin Finance Journal*, 14(1), 33-48. <https://doi.org/10.1016/j.pacfin.2004.12.004>
- Becchetti, L., Bobbio, E., Prizia, F., Semplici, L. (2022). Going deeper into the S of ESG: a relational approach to the definition of social responsibility. *Sustainability*, 14(15), 1-19. <https://doi.org/10.3390/su14159668>
- Bello, Z.Y. (2005). Socially responsible investing and portfolio diversification. *Journal of Financial Research*, 28(1), 41-57. <https://doi.org/10.1111/j.1475-6803.2005.00113.x>
- Benson, K.L., Brailsford, T.J., Humphrey, J.E. (2006). Do socially responsible fund managers really invest differently?. *Journal of Business Ethics*, 65(4), 337-57. <https://doi.org/10.1007/s10551-006-0003-8>
- Broadstock, D. C., Chan, K., Cheng, L. T., Wang, X. (2021). The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China. *Finance Research Letters*, 38, 101716. <https://doi.org/10.1016/j.frl.2020.101716>
- Carhart, M.M. (1997). On the persistence in mutual fund performance. *The Journal of Finance*, 52(1), 57-82. <https://doi.org/10.1111/j.1540-6261.1997.tb03808.x>
- Chang, C.E., Nelson, W.A., Doug Witte, H. (2012). Do green mutual funds perform well?. *Management Research Review*, 35(8), 693-708. <https://doi.org/10.1108/01409171211247695>
- Chapple, W., Moon, J. (2005). Corporate social responsibility (CSR) in Asia: A seven-country study of CSR web site reporting. *Business & society*, 44(4), 415-441. <https://doi.org/10.1177/0007650305281658>
- Chiappini, H., Vento, G., De Palma, L. (2021). The impact of COVID-19 lockdowns on sustainable indexes. *Sustainability*, 13(4), 1-18. <https://doi.org/10.3390/su13041846>
- 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), 49-57. <https://doi.org/10.58886/jfi.v17i1.2334>



- David, L.K., Wang, J., David Jr, V. (2024). Economic and Governance Dimensions of ESG Performance: A Comparative Study in the Developing and European Countries. *The Journal of Developing Areas*, 58(4), 221-240. <https://doi.org/10.1353/jda.2024.a931312>
- Derwall, J., Koedijk, K. (2009). Socially responsible fixed-income funds. *Journal of Business Finance & Accounting*, 36(1/2), 210–229. <https://doi.org/10.1111/j.1468-5957.2008.02119.x>
- Fama, Eugene F., French, Kenneth R. (1996). Multifactor explanations of asset pricing anomalies. *Journal of Finance*, 51, 55–84. [https://doi.org/10.1016/0304-405X\(93\)90023-5](https://doi.org/10.1016/0304-405X(93)90023-5)
- Fama, Eugene F., French, Kenneth R. (1993). Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics*, 33, 3–56. [https://doi.org/10.1016/0304-405X\(93\)90023-5](https://doi.org/10.1016/0304-405X(93)90023-5)
- Fan, J.P., Wei, K.J., Xu, X. (2011). Corporate finance and governance in emerging markets: A selective review and an agenda for future research. *Journal of Corporate Finance*, 17(2), 207-214. <https://doi.org/10.1016/j.jcorpfin.2010.12.001>
- Fang, F., Parida, S. (2022). Sustainable mutual fund performance and flow in the recent years through the COVID-19 pandemic. *International Review of Financial Analysis*, 84, 1-12. <https://doi.org/10.1016/j.irfa.2022.102387>
- Folger-laronde, Z., Pashang, S., Feor, L., Elalfy, A. (2022). ESG ratings and financial performance of exchange-traded funds during the COVID-19 pandemic. *Journal of Sustainable Finance & Investment*, 12, 490-496. <https://doi.org/10.1080/20430795.2020.1782814>
- Gangaraju, P.K., Raj, R., Kumar, V., NSB, A., De, T., Kaswan, M.S. (2025), Financial Performance in Industry 4.0 Agile Supply Chains: Evidence from Manufacturing Companies. *The TQM Journal*, 37(1), 222-248. <https://doi.org/10.1108/TQM-07-2023-0214>
- Gantchev, N., Giannetti, M., Li, R. (2024). Sustainability or performance? Ratings and fund managers' incentives. *Journal of Financial Economics*, 155, 103831. <https://doi.org/10.1016/j.jfineco.2024.103831>
- Goldreyer, E.F., Ahmed, P., Diltz, J.D. (1999). The performance of socially responsible mutual funds: incorporating sociopolitical information in portfolio selection. *Managerial Finance*, 25(1), 23–36. <https://doi.org/10.1108/03074359910765830>
- Gupta, H., Jha, A., Raj, R., Kumar, V. (2024), An empirical study on volatility in industrial sectors during COVID 19. *International Journal of Business Excellence*, Ahead-of-Print, 1-22.
- Hamilton, S., Jo, H., Statman, M. (1993). Doing well while doing good?. The investment performance of socially responsible mutual funds. *Financial Analysts Journal*, 49(6), 62–66. <https://doi.org/10.2469/faj.v49.n6.62>
- Hornuf, L., Yüksel, G. (2024). The performance of socially responsible investments: A meta-analysis. *European Financial Management*, 30(2), 1012-1061. <https://doi.org/10.1111/eufm.12439>
- Humphrey, J. E., Lee, D.D., Shen, Y. (2012). The independent effects of environmental, social and governance initiatives on the performance of UK firms. *Australian Journal of Management*, 37(2), 135-151. <https://doi.org/10.1177/0312896211410081>
- Ito, Y., Managi, S., Matsuda, A. (2013). Performances of socially responsible investment and environmentally friendly funds. *Journal of the Operational Research Society*, 64(11), 1583-1594. <https://doi.org/10.1057/jors.2012.112>
- Jackson, T. (2011). Societal transformations for a sustainable economy. *In Natural Resources Forum*, 35(30), 155-164. <https://doi.org/10.1111/j.1477-8947.2011.01395.x>
- Jain, V., Mitra, A. (2025). The Role of Corporate Governance in Driving Technological Innovation for Sustainable Development. *In Modern Corporate Governance Strategies for Sustainable Value Creation*. IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-6750-6.ch007>



- Jawa, R., Zamani, K. (2022). Sustainable investment versus conventional investment: A study from Indian stock market during COVID-19 pandemic. *International Journal of Engineering Technologies and Management Research*, 9(3), 63-77. <https://doi.org/10.29121/ijetmr.v9.i4.2022.1137>
- Jawa, R., Zamani, K., Goyal, A. (2020). A meta-analysis of the literature performed comparative analysis of socially responsible mutual funds to their conventional peers. *Solid State Technology*, 63(5), 6258-6281.
- Jawa, R., Zamani, K., Kumar, H. (2021). Does it really pay to be green in India? A study of financial performance of select power companies. *Mudra: Journal of Finance and Accounting*, 8(2), 36-56. <https://doi.org/10.17492/jpi.mudra.v8i2.822103>
- Jegadeesh, N., Titman, S. (1993). Returns to buying winners and selling losers: Implications for stock market efficiency. *The Journal of Finance*, 48(1), 65-91. <https://doi.org/10.1111/j.1540-6261.1993.tb04702.x>
- Jensen, M.C. (1968). The Performance of Mutual Funds in the Period 1945–64. *The Journal of Finance*, 23(2), 389–416. <https://doi.org/10.2307/2325404>
- Kandpal, V., Jaswal, A., Santibanez Gonzalez, E.D., Agarwal, N. (2024). Corporate Social Responsibility (CSR) and ESG reporting: Redefining Business in the Twenty-First Century. In *Sustainable Energy Transition: Circular Economy and Sustainable Financing for Environmental, social and governance (ESG) practices*, Cham: Springer Nature Switzerland, 239-272. https://doi.org/10.1007/978-3-031-52943-6_8
- Kapecki, T. (2020). Elements of Sustainable Development in the Context of the Environmental and Financial Crisis and the COVID-19 pandemic. *Sustainability*, 12(15), 6188. <https://doi.org/10.3390/su12156188>
- Kempf, A., Osthoff, P. (2008). SRI funds: Nomen Est Omen. *Journal of Business Finance and Accounting*, 35(9/10), 1276–1294. <https://doi.org/10.1111/j.1468-5957.2008.02107.x>
- Khan, K., Zhao, H., Zhang, H., Yang, H., Shah, M.H., Jahanger, A. (2020). The Impact of COVID-19 Pandemic on Stock Markets: An Empirical Analysis of World Major Stock Indices. *Journal of Asian Finance, Economics and Business*, 7(7), 463–474. <https://doi.org/10.13106/jafeb.2020.vol7.no7.463>
- Khemir, S., Baccouche, C., Ayadi, S.D. (2019). The Influence of ESG information on Investment Allocation Decisions: An Experimental Study in an Emerging Country. *Journal of Applied Accounting Research*, 20(4), 458-480. <https://doi.org/10.1108/JAAR-12-2017-0141>
- Klapper, L.F., Love, I. (2004). Corporate governance, investor protection, and performance in emerging markets. *Journal of corporate Finance*, 10(5), 703-728. [https://doi.org/10.1016/S0929-1199\(03\)00046-4](https://doi.org/10.1016/S0929-1199(03)00046-4)
- Kräussl, R., Oladiran, T., Stefanova, D. (2024). A review on ESG investing: Investors' expectations, beliefs and perceptions. *Journal of Economic Surveys*, 38(2), 476-502. <https://doi.org/10.1111/joes.12599>
- Lalthanliana, S., Singh, B., Lalzuithangi, H. (2024). Environmental, Social and Governance (ESG) Factors in Mutual Fund Performance and Investor Preferences. *International Management Review*, 20, 116-148. <https://www.proquest.com/openview/d317c3817f8a86f742f2612f4d9c53e8/1?pq-origsite=gscholar&cbl=28202>
- Lee, K.J., Lu, S.L. (2021). The impact of COVID-19 on the Stock Price of Socially Responsible Enterprises: An Empirical Study in Taiwan Stock Market. *International Journal of Environmental Research and Public Health*, 18(4), 1398. <https://doi.org/10.3390/ijerph18041398>
- Lesser, K., Rößle, F., Walkshäusl, C. (2016). Socially Responsible, Green, and Faith-Based Investment Strategies: Screening Activity Matters!. *Finance Research Letters*, 16, 171-178. <https://doi.org/10.1016/j.frl.2015.11.001>
- Li, D., Li, H. (2025). Socially Responsible Investment and Fund Performance: The Moderating Roles of Mutual Funds' Operating Environments. *International Review of Financial Analysis*, 97, 103804. <https://doi.org/10.1016/j.irfa.2024.103804>
- Liedekerke, L.V., De Moor, L., Wallegghem, D.V. (2007). Risk- return of Belgian SRI funds. *Tijdschrift voor Economie en Management*, 52(4), 673–685.



- Lintner, J. (1965a). The Valuation of Risk Assets and the Selection of Risky Investments in stock Portfolios and Capital Budgets. *The Review of Economics and Statistics*, 47, 13–37. <https://doi.org/10.2307/1924119>
- Lintner, J. (1965b). Securities Prices, Risk, and Maximal Gains from Diversification. *The Journal of Finance*, 20(4), 587–615. <https://doi.org/10.2307/2977249>
- Makarenko, E.N., Chernysheva, Y.G., Polyakova, I.A., Kislaya, I.A. (2023). Sustainable Business Development in the Concept of its ESG Responsibility. In *Climate-Smart Innovation: Social Entrepreneurship and Sustainable Development in the Environmental Economy*, 285-298. https://doi.org/10.1142/9789811264252_0018
- Markowitz, H. (1952). Portfolio selection. *The Journal of Finance*, 7(1), 77–91. <https://doi.org/10.2307/2975974>
- Martini, A. (2021). Socially Responsible Investing: from the Ethical Origins to the Sustainable Development Framework of the European Union. *Environment, development and sustainability*, 23(11), 16874-16890. <https://doi.org/10.1007/s10668-021-01375-3>
- Meiden, C., Silaban, A. (2023). Exploring the Measurement of Environmental Performance in Alignment with Environmental, Social, and Governance (ESG): a Qualitative Study. *Information Sciences Letters*, 12(9), 2287-2297. [Information Sciences Letters, 12\(9\), 2287-2297.](https://doi.org/10.1007/s10668-021-01375-3)
- Modigliani, F., Miller, M.H. (1958). The Cost of Capital, Corporation Finance, and the theory of Investment. *The American Economic Review*, 48(3), 261–297. <https://www.jstor.org/stable/1809766>
- Modigliani, Franco, and Leah Modigliani. (1997). Risk-adjusted performance. *Journal of Portfolio Management*, 23(2), 45-54. <https://www.pm-research.com/content/iijpormgmt/23/2/45>
- Momparler, A., Carmona, P., Climent, F. (2025). Catalyzing Sustainable Investment: Revealing ESG Power in Predicting Fund Performance with Machine Learning. *Computational Economics*, 65, 1617–1642. <https://doi.org/10.1007/s10614-024-10618-0>
- Mossin, J. (1966). Equilibrium in a Capital Asset Market. *Econometrica*, 34(4), 768–783. <https://doi.org/10.2307/1910098>
- Mueller, S. (1991). The Opportunity Cost of Discipleship: Ethical Mutual Funds and their Returns. *Sociological Analysis*, 52(1), 111–124. <https://doi.org/10.2307/3710719>
- Muñoz, F., Vargas, M., Marco, I. (2014). Environmental Mutual Funds: Financial performance and managerial abilities. *Journal of Business Ethics*, 124(4), 551-569. <https://doi.org/10.1007/s10551-013-1893-x>
- Mynhardt, H., Makarenko, I., Plastun, A. (2017). Standardization of Sustainability Reporting: Rationale for better Investment Decision-making. *Public and Municipal Finance*, 6(2), 7-15. [http://dx.doi.org/10.21511/pmf.06\(2\).2017.01](http://dx.doi.org/10.21511/pmf.06(2).2017.01)
- Nofsinger, J., Varma, A. (2014). Socially Responsible Funds and Market Crises. *Journal of Banking & Finance*, 48, 180–193. <https://doi.org/10.1016/j.jbankfin.2013.12.016>
- Omura, A., Roca, E., Nakai, M. (2020). Does Sustainable Investing pay during Economic Downturns: Evidence from the COVID-19 pandemic. *Finance Research Letters*, 42, 101914. <https://doi.org/10.1016/j.frl.2020.101914>
- Petridis, K., Kiosses, N., Tampakoudis, I., Ben Abdelaziz, F. (2023). Measuring the efficiency of Mutual Funds: Does ESG Controversies Score affect the Mutual Fund Performance during the COVID-19 pandemic?. *Operational research*, 23(3), 54. <https://doi.org/10.1007/s12351-023-00795-5>
- Reboredo, J.C., Quintela, M., Otero, L.A. (2017). Do investors pay a Premium for Going Green? Evidence from Alternative Energy Mutual Funds. *Renewable and Sustainable Energy Reviews*, 73, 512-520. <https://doi.org/10.1016/j.rser.2017.01.158>
- Renneboog, L., Horst, J.T., Zhang, C. (2008). The Price of Ethics and Stakeholder Governance: The Performance of Socially Responsible Mutual Funds. *Journal of Corporate Finance*, 14(3), 302–322. <https://doi.org/10.1016/j.jcorpfin.2008.03.009>



- Seth, M., Singh, S., Kumar, V., Jha, A., Mahmood, A. (2025). Exploring the Link between Organizational Commitment, Person Organization Fit, and Work-Life Conflict. *Asian Journal of Interdisciplinary Research*, 8(2), 89–104. <https://doi.org/10.54392/ajir2525>
- Sharpe, W.F. (1964). Capital Asset Prices: a Theory of Market Equilibrium Under Conditions of Risk. *The Journal of Finance*, 19(3), 425–442. <https://doi.org/10.1111/j.1540-6261.1964.tb02865.x>
- Sharpe, W.F. (1994). The Sharpe Ratio. *The Journal of Portfolio Management*, 21(1), 49–58. <http://dx.doi.org/10.3905/jpm.1994.409501>
- Sherif, M. (2020). The impact of Coronavirus (COVID-19) Outbreak on Faith-Based Investments: An Original Analysis. *Journal of Behavioral and Experimental Finance*, 28, 1-10. <https://doi.org/10.1016/j.jbef.2020.100403>
- Singh, S., Raj, R., Dash, B. M., Kumar, V., Paliwal, M., Chauhan, S. (2025). Access to finance and its Impact on Operational Efficiency of MSMEs: Mediating Role of Entrepreneurial Personality and self-efficacy. *Journal of Small Business and Enterprise Development*, 32(3), 596-619. <https://doi.org/10.1108/JSBED-01-2024-0053>
- Statman, M. (2000). Socially Responsible Mutual Funds. *Financial Analysts Journal*, 56(3), 30–39. <https://doi.org/10.2469/faj.v56.n3.2358>
- Statman, Meir. (1987). How Many Stocks make a Diversified Portfolio? *Journal of Financial and Quantitative Analysis*, 22(3), 353-363. <https://doi.org/10.2307/2330969>
- Torres, L., Ripa, D., Jain, A., Herrero, J., Leka, S. (2023). The Potential of Responsible Business to Promote Sustainable Work—An Analysis of CSR/ESG Instruments. *Safety Science*, 164, 106151. <https://doi.org/10.1016/j.ssci.2023.106151>
- Travers, F.J. (1997). Socially Responsible Investing on a Global Basis: Mixing money and morality outside the US. *The Journal of Investing*, 6(4), 50-56. <https://doi.org/10.3905/joi.1997.408437>
- Tripathi, V., Bhandari, V. (2012). Green is good in Indian Stock Market. *Colombo Business Journal*, 3(2), 27-45. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2322596
- Tripathi, V., Bhandari, V. (2015). Do ethical funds Underperform Conventional Funds?—Empirical Evidence from India. *International Journal of Business Ethics in Developing Economies*, 4(2), 10-19. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2691265
- Tripathi, V., Bhandari, V. (2016a). Performance of Socially Sustainable Stocks Portfolios - the impact of global financial crisis. *Journal of Economics & Business Research*, 22(1), 42–68. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2843113
- Tripathi, V., Bhandari, V. (2016b). Performance of socially sustainable portfolios across sectors in Indian stock market. *International Journal of Business Ethics in Developing Economies*, 5(1), 1–9.
- Tripathi, V., Kaur, A. (2020). Socially sustainable investing: performance evaluation of BRICS nations. *Journal of Advances in Management Research*, 17(4), 525–547. <https://doi.org/10.1108/JAMR-02-2020-0020>
- Tripathi, V., Kaur, A. (2022). Does socially responsible investing pay in developing countries? A comparative study across select developed and developing markets. *FIIB Business Review*, 11(2), 189-205. <https://doi.org/10.1177/2319714520980288>
- Westley, F., Vredenburg, H. (1996). Sustainability and the corporation: Criteria for aligning economic practice with environmental protection. *Journal of Management Inquiry*, 5(2), 104-119. <https://doi.org/10.1177/105649269652003>
- World Investment Report (2024), Investment facilitation and digital government, Sustainable finance trends, Chapter III, pp. 79-106, Available at: https://unctad.org/system/files/official-document/wir2024_ch03_en.pdf
- Zhang, D., Hu, M., Ji, Q. (2020). Financial markets under the global pandemic of COVID-19. *Finance Research Letters*, 36, 1-10. <https://doi.org/10.1016/j.frl.2020.101528>



Author Contribution Statement

Kishwar Zamani: Conceptualization, Investigation, Methodology, Writing - Original Draft. Rachna Jawa: Conceptualization, Formal Analysis, Resources, Writing - Original Draft. Sumanjeet Singh: Conceptualization, Data curation, Visualization, Writing - Original Draft. Vimal Kumar: Writing - Review & Editing, Supervision, Validation. Minakshi Paliwal: Writing - Review & Editing, Supervision. Rohit Raj: Writing - original Draft. Nidhi Kumari: Writing - Review & Editing. All the authors have read and agreed to the published version of the manuscript.

Does this article screen for similarity?

Yes

Conflict of Interest

The authors have no conflicts of interest to declare. There is also no financial interest to report. The author certifies that the submission is original work and is not under review at any other publication.

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