Performance Evaluation of ESG Mutual Funds in India

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Abstract

ESG investments have drawn a lot of interest from both investors and customers over the past ten years. Since the past five years, these investments have also gained popularity in the Indian context. Several renowned asset management firms have introduced their ESG programmes and drawn investors. This study evaluated the performance of ESG mutual fund schemes and examined a comprehensive portfolio. The findings imply that financial services and technology were the two sectors that ESG integrated assets found to be most appealing. A benchmark has also been used to compare the performance of ESG schemes. The analysis also highlights the industries and businesses that are most popular in each sector. The study's main goal is to comprehend the development and popularity of ESG mutual funds in India. Academicians, investors, business professionals, and research scholars can use this study as a starting point for their own research and investments. A systematic review of the literature and analysis of secondary data from various research firms involved in wealth management within the BFSI sector are the methodologies used in the current study. The study's key conclusions point to an increase in ESG fund investment in India, though growth is still sluggish when compared to other developed nations' major economies. This might be the case because Indian investors have not yet fully embraced the idea of discounting ESG factors when constructing a portfolio. This study includes a detailed discussion of portfolio and performance as well as risk return ratio.

Keywords: *Sustainability, Asset Management Firm, Financial performance, ESG Investments, Benchmark, and Portfolio Allocation.*

1. Introduction

Global acceptance of the use of environmental, social, and corporate governance (ESG) evaluations as investment selection criteria is growing. Companies that follow ESG mandates are argued to be more likely to deliver long-term sustainable performance, which is appealing to investors looking for appealing long-term investment opportunities, such as ESG-based investment trusts. India is following the lead of its international counterparts and utilising investment trusts and asset management firms to engage in the ESG trend of investing. In the coming years, investing in this sector is anticipated to yield favourable returns because it has not yet been fully explored. In this regard, this paper makes an effort to look into the expansion of ESG funds in India and examine the performance of the funds that are already in this category. According to the study, these funds have experienced tremendous growth in terms of the quantity of schemes, assets under management, and inflows. This study presents the CAGR and return performance of mutual fund schemes based on risk-adjusted performance indicators. Investors primarily consider a number of financial factors, such as profitability creation, earnings growth, solvency, and cash flow, when making investment decisions. Non-financial aspects, such as ensuring environmental and social responsibility and organisational commitment to good corporate governance, are becoming more and more important and are being recognised at home in a world that is gradually shifting from traditional commercial business models to sustainable business models. (Bhavani and Sharma 2019) Investing in ESG [environmental, social, and (corporate) governance) has recently gained popularity and is unavoidably attracting academicians' attention.

1.1 ESG philosophy of investment

A sustainable and socially conscious approach to building an investment portfolio can be seen as the goal of the ESG investment philosophy. Companies all over the world are being exposed to a new set of risks that have never been seen before. If global challenges like climate change, regulatory pressure to adhere to governance codes, social and demographic changes, terrorism, data protection and data security are not taken into account in business models, they will have a long-term impact on organisations. Furthermore, it is undeniable that businesses that successfully integrate sustainability considerations into their operations enjoy long-term success. As a result, from the perspective of value investing, investors should not only anticipate consistent long-term profits, but also the opportunity to contribute to sustainability by selecting a long-term investment company. Ervin et al. (2012), Khanna and Speir (2013), Bansal and Gangopadhyay (2003, 2003, 2012).

1.2 What motivates ESG investment?

The following is a discussion of the factors that have been most important to the recent increase in ESG investment:

a. A variety of risks are being created by global changes in environmental sustainability, data security and privacy, governance code compliance, and terrorism. Companies that anticipate these risks and make prudent plans will be the only ones to live and prosper in the future. As a result, investing in companies that adhere to ESG principles is also required.

b. Newer investors: Because they are more conscious of how their investment choices can contribute to sustainability, newer investors are more likely to favour ESG investments. Globally, a new era of ESG investment has emerged by questioning and reevaluating conventional financial investment patterns, and a mechanism for incorporating ESG principles into this domain has also emerged. New generation investors are starting to favour the introduction of new investment opportunities and tools based on the idea of ESGs.

c. Data Availability: Incorporating the ESG philosophy into the selection of investee companies necessitates the availability of more information about the performance of the company in relation to sustainability metrics. Thanks to stricter disclosure requirements for market observers, data availability and quality have increased significantly. This aided investors' decision-making when comparing their companies' performance to ESG metrics.

The disclosure of information and the publication of an open ESG report are two of the most crucial components of sustainable investment. Despite the fact that ESG reporting and disclosure are required by law in many nations and optional in many others, the topic is currently in high demand. Information disclosure is crucial for customers and investors to assess long-term business and investment strategies and determine sustainability quotient. To potential investors, the disclosures offer crucial information. (PWC 2020)

d. Artificial intelligence (AI) and machine learning, two cutting-edge technologies, are encouraging the development of new tools for extracting data from reports that have already been published. Due to this, companies are no longer solely relied upon for voluntary disclosure to evaluate ESG performance. The accurate and timely data analysis supported by cutting-edge technology has greatly streamlined ESG investment.

e. Global Investment: Achieving ESG goals is a long-term process, drawing a steady flow of funding. Private investment might help some of these objectives be accomplished. ESG Investment may therefore be crucial for achieving the SDGs (Korwatanasakul2020). The SDGs' identified problems are unlikely to be solved by public funding alone; instead, they require active participation and support from the private sector.

2. Review of Literature

Indian Nifty ESG Index outperformed Nifty 50 over one and five year periods ending October 30, 2020, according to (Goyal & Aggarwal, 2014). Additionally, the ESG schemes have an aggressive portfolio and a higher overall and systematic risk. However, a study comparing benchmark US ESG indexes and funds found no appreciable performance differences between the two. 2019 (Jain, Sharma, & Srivastava). On the basis of risk-return and volatility analysis, there is a significant opportunity to create better ESG portfolios, according to Sudha (2015). According to Scandinavian mutual fund schemes (Dopiera, Mosionek-Schweda, & Ilczuk, 2020), asset allocation at both the sectoral and corporate levels is essential for influencing a scheme's performance significantly. (Torre, Mango, Cafaro, & Leo, 2020) claim that communicating ESG strategies and investing in ESG have a positive impact on firm returns. Since 2009, especially in the wake of the global financial crisis, companies have become more sensitive to CSR and other governance factors, and this has been reflected in their performance in the ESG index (Singh, 2013). By taking into account connections between the ESG theme and company financial performance, ESG integration aids in the development and analysis of portfolios that are more closely aligned to the ESG criteria (Franklin, 2020). However, according to a study by Jin (2020), value-oriented investors continue to make long-term investments while researching passive ESG investing. According to Xiao-Guang Yue et al. (2020), investing in sustainable funds is less risky than investing in traditional funds. In their opinion, sustainable funds consistently outperformed the market over the study period on the majority of the metrics, according to Helena Naffa and Máté Fain (2020).

3. Research Shortcomings/Study Limitations

- Reliant on secondary data
- For some schemes, the risk-adjusted return cannot be calculated due to their recent launch.

• Knowing the preferences of investors and fund managers requires primary data.

4. The Study's Purpose

Understanding the availability and expansion of ESG Mutual Funds is the study's main goal. The study aids in determining how well ESG Thematic schemes that are offered in India are performing. Academicians, investors, business professionals, and research scholars can use this study as a starting point for their own research and investments.

5. Methodology of Research

• Exploratory research built on a method of investigation.

• In order to gather published secondary data, reliable and authentic research websites were used.

• Fund managers and investors will be contacted via a structured questionnaire for the study's further expansion.

6. Results of the Study

a. Growth of ESG Funds in India: As was already mentioned, compared to its international counterparts, India has a much smaller number of sustainable investment funds. However, since 2019, ESG fund investment in India has skyrocketed. There was only one such mutual fund scheme up until 2018 (SBI Magnum Equity ESG Fund), but since then, nine additional mutual fund schemes have been introduced. Ten ESG Mutual Fund schemes are available under direct and regular plans in total. According to SEBI data, the ESG thematic equity schemes had assets under management (AUM) of 11,800 crores at the end of June 2022. Fresh $9 trillion will be invested globally in the ESG category by 2025, according to a study by Bloomberg Intelligence, and total AUM is anticipated to reach $53 trillion.

b. Results of ESG Thematic Equity Schemes:

b1: As of June 30, 2022, ten equity ESG thematic schemes are available in India. The study's sample includes each of the ten ESG thematic schemes. The schemes that have reached their third anniversary are listed first, followed by the AUM rankings from highest to lowest as of July 2022. The following provides a snapshot of these schemes:

Table b1 Snapshot of the Selected ESG Thematic Schemes

Fund Name	Category	Launch	Expense Ratio (%)	1 Year CAGR (%)	3 Year CAGR (%)	Till Date CAGR (%)	Net Assets (Cr)	Fund Manager
SBI Magnum Equity ESG Fund (Growth)	EQ-T-ESG	2006-11-27	2.06	2.3	17.6	12.1	4670.396	Rohit Shimpi
HDFC Housing Opportunities fund (Growth)	EQ-T-ESG	2017-12-06	2.24	7.7	15.5	7.0	1239.336	Rakesh Vyas
Quantum India ESG Equity Fund - Regular Plan	EQ-T-ESG	2019-07-12	1.69	-1.1	19.8	18.3	62.042	Chirag Mehta
Axis ESG Equity Fund - Regular Plan	EQ-T-ESG	2020-02-12	2.13	-10.0	-	16.8	1801.514	Jinesh Gopani

Kotak ESG Opportunities Fund - Regular Plan	EQ-T-ESG	2020-12-11	2.08	-4.5	-	10.6	1440.073	Harsha Upadhyaya
ICICI Prudential ESG Fund	EQ-T-ESG	2020-10-09	2.20	-5.0	-	16.3	1416.493	Mittul Kalawadia
Aditya Birla Sun Life ESG Fund - Regular Plan	EQ-T-ESG	2020-12-24	2.33	-4.6	-	14.1	1012.437	Satyabrata Mohanty
Invesco India ESG Equity Fund (Growth)	EQ-T-ESG	2021-03-22	2.29	-3.9	-	15.5	748.825	Taher Badshah
Mirae Asset Nifty 100 ESG Sector Leaders ETF	EQ-T-ESG	2020-11-17	0.65	-.3	-	17.6	136.578	Ekta Gala
Quant ESG Equity Fund (Growth)	EQ-T-ESG	2020-11-05	2.69	25.2	-	55.8	99.609	Sanjeev Sharma

Source: valueresearchonline.com/accessed on 13th July, 2022

The aforementioned schemes, which invest 80–100% of the funds in equity, use the Nifty 100 ESG TRI as their benchmark index. The launch of schemes with an ESG theme is extremely appealing to asset management companies.

b2: Top Three Sectors and Companies in the Portfolio: As of July 2022, the following table lists the top three industries and top three businesses in which the schemes have invested.

Table b2 Top Six Sectors and Companies in the Portfolio of ESG Thematic Funds

	Sectorial Allocation			**Company Holdings**		
SBI Magnum Equity ESG Fund (Growth)	Financials	Consumer Cyclical	Technology	Infosys	HDFC	ICICI Bank
HDFC Housing Opportunities fund (Growth)	Financials	Basic Materials	Industrials	Larsen &Turbo	HDFC Bank	ICICI Bank
Quantum India ESG Equity Fund - Regular Plan	Financials	Technology	Consumer Cyclical	**TREPS^**	TATA Chemicals Ltd.	TATA Services Ltd.
Axis ESG Equity Fund - Regular Plan	Financials	Services	Technology	Nestle India	Avenue Supermarts	Bajaj Finance
Kotak ESG Opportunities Fund - Regular Plan	Financials	Technology	Materials	Infosys	State Bank of India	ICICI Bank
ICICI Prudential ESG Fund	Technology	Financials	Automobiles	Infosys	HDFC Bank	HCL Technologies
Aditya Birla Sun Life ESG Fund - Regular Plan	Financials	Technology	Services	ICICI Bank	Infosys	Axis Bank

Invesco India ESG Equity Fund (Growth)	Financials	Technology	Consumer Cyclical	HDFC Bank	Infosys	ICICI Bank
Mirae Asset Nifty 100 ESG Sector Leaders ETF	Financials	Technology	Energy	Reliance Industries	HDFC Bank	Infosys
Quantum India ESG Equity Fund - Regular Plan	Technology	Financials	Consumer Staples	Tata Consultancy Services	Infosys	HDFC

Source: valueresearchonline.com/accessed on 13th July, 2022

The following conclusions can be drawn from the above table:

• It has been noted that the two sectors that thematic ESG mutual fund schemes most favour are technology and financial services. The most sought-after company for investment in the technology sector is Infosys, followed by the financial services companies HDFC Bank and ICICI Bank.

• Contrary to peer schemes, the HDFC Housing Opportunities Fund (Growth) has NOT invested in the technology sector among the top three choices, yet it is still generating the MOST CONSISTENT POSITIVE RETURNS.

b3:The following table displays the absolute and annualised return of the various ESG mutual fund thematic schemes under consideration. The table shows that the absolute returns for all six funds as of the end of 2022 have been positive and healthy. Due to the worsening economic climate and the sluggish post-pandemic economic recovery, all of the schemes' annualised returns have been negative.

Table b3 Absolute and Annualized Return of the Schemes

Fund Name	Expense Ratio (%)	1 Year CAGR (%)	3 Year CAGR (%)	Till Date CAGR (%)
SBI Magnum Equity ESG Fund (Growth)	2.06	2.3	17.6	12.1
HDFC Housing Opportunities fund (Growth)	2.24	7.7	15.5	7.0
Quantum India ESG Equity Fund - Regular Plan	1.69	-1.1	19.8	18.3
Axis ESG Equity Fund - Regular Plan	2.13	-10.0	-	16.8
Kotak ESG Opportunities Fund - Regular Plan	2.08	-4.5	-	10.6
ICICI Prudential ESG Fund	2.20	-5.0	-	16.3
Aditya Birla Sun Life ESG Fund - Regular Plan	2.33	-4.6	-	14.1

Invesco India ESG Equity Fund (Growth)	2.29	-3.9	-	15.5
Mirae Asset Nifty 100 ESG Sector Leaders ETF	0.65	-.3	-	17.6
Quant ESG Equity Fund (Growth)	2.69	25.2	-	55.8

Source: valueresearchonline.com/accessed on 13th July, 2022

From the above table following inferences can be drawn:

The following conclusions can be drawn from the above table:

- Even though it is the smallest and newest fund in the category, Quant ESG Equity Fund (Growth) has outperformed its peers. This amplifies the quality of the portfolio (studied further).
- Ever since it was established, the HDFC Housing Opportunities fund (Growth) has consistently produced gains.
- The fund with the highest negative return was Axis ESG Equity Fund - Regular Plan.

C. Risk Profile and Risk-Adjusted Performance of ESG Thematic Equity Schemes: The study also discusses risk ratios for ESG Thematic schemes, such as mean, absolute risk (standard deviation), Sharpe Ratio, Sortino, systematic risk (beta), and unsystematic risk alpha. It's important to note that risk ratios are only available for schemes that have been in existence for three years. Absolute risk here represents the sum of systematic and unsystematic risk. Unsystematic risk denotes fluctuations brought on by firm-specific factors as opposed to systematic risk, which describes fluctuations brought on by market forces.

Due to the adoption of an active investment strategy, return and risk metrics across mutual fund schemes essentially differ. As a result, only risk adjusted measures can be used to compare their performance over a specified period of time. The study employs four risk-adjusted measures in this situation: the Sharpe Ratio, Treynor Ratio, Sortino Ratio, and Jensen's Alpha.

The Sharpe Ratio: Created by Nobel laureate William F. Sharpe, this ratio explains how much excess return an investor has reaped for the volatility of holding a riskier portfolio with both systematic and unsystematic risk. It is determined using the formula –

$$\text{Sharpe Ratio} = \frac{R_p - R_f}{\sigma_p}$$

The performance of the portfolio when adjusting for risk is improved with a higher ratio.

Sortino Ratio: This modification of the Sharpe Ratio offers a risk-adjusted performance measure that takes the downside risk (i.e., negative deviations or loss) instead of total risk (S.D). Retail investors who are more worried about loss should use this ratio. It is determined using the formula –

$$\text{Sortino Ratio} = \frac{R_p - R_f}{D}$$

The performance of the portfolio when adjusting for risk is improved with a higher ratio.

$\text{Treynor Ratio} = \frac{R_p - R_f}{\beta_p}$ where β_p refers to the systematic risk measure of the portfolio.

Treynor Ratio: Invented by J. L. Treynor, using this risk-adjusted measure, you can see how much excess return a portfolio has produced for each unit of systematic risk (measured by beta). The change in a portfolio's return as a result of changes in the overall market return is referred to as systematic risk, as was previously stated.

The higher the ratio, the better is the systematic risk adjusted performance of the portfolio.

Table c1 Risk Profile of the Schemes

Fund Name	Mean	Standard Deviation	Sharpe	Sortino	Beta	Alpha
SBI Magnum Equity ESG Fund (Growth)	18.81	21.84	.70	.76	.97	-1.02
HDFC Housing Opportunities fund (Growth)	16.96	25.59	.53	.61	1.06	-6.21
Quantum India ESG Equity Fund - Regular Plan	20.19	19.60	.85	.91	.86	2.19
Axis ESG Equity Fund - Regular Plan	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Kotak ESG Opportunities Fund - Regular Plan	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
ICICI Prudential ESG Fund	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Aditya Birla Sun Life ESG Fund - Regular Plan	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Invesco India ESG Equity Fund (Growth)	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Mirae Asset Nifty 100 ESG Sector Leaders ETF	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Quant ESG Equity Fund (Growth)	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Source: valueresearchonline.com/funds/accessed on 13th July, 2022

* Risk Ratios are available only for those schemes which have completed three years of inception.

The following conclusions can be drawn from the above table:

• In comparison to peer schemes for which risk indicators are available, HDFC Housing Opportunities fund (Growth) exhibits the highest standard deviation (25.59), which denotes high risk.

• In comparison to its peer schemes, Quantum India ESG Equity Fund - Regular Plan has the highest Sharpe ratio (.85), indicating that it has produced the highest risk-adjusted return.

• Highest Beta (1.06), a sign of greatest volatility, is displayed by HDFC Housing Opportunities fund (Growth). The highest standard deviation and beta are found in this scheme.

• With the highest alpha (2.19), Quantum India ESG Equity Fund - Regular Plan has outperformed the benchmark.

We can conclude that HDFC Housing Opportunities Fund (Growth) has not produced negative returns since its inception, but has displayed significant volatility, after examining the risk-adjusted performance of ESG schemes offered by SBI, HDFC, and Quantum. Quantum India ESG Equity Fund - Regular Plan, on the other hand, has a targeted strategy and outperformed benchmark and peer schemes while maintaining the lowest expense ratio (1.69 %) when compared to HDFC and SBI.

Despite being the biggest and oldest ESG fund, SBI Magnum Equity ESG Fund (Growth) scheme has not received the highest risk adjusted return ranking.

The above section has covered the main findings of the risk-adjusted return. However, the following is a summary of some additional observations:

1. Quality data are readily available:

Therefore, obstacles to increasing his ESG investments in India include data credibility and credibility.

2. Taxonomies and market standards are lacking.

For investors looking for clarity and comparability in a company's ESG performance, the lack of standardisation in ESG data collection, reporting procedures, and impact metrics adds another level of complexity.

3. Investors' and money managers' conventional wisdom

4. ESG funds have a poor track record:

Investment is hampered by India's short track record of performance in comparison to funds that focus on ESG and non-ESG products.

5. Technical Capabilities with Limitations:

All value chain participants are gradually acclimating to the topic of ESG as it develops at a rapid pace. It is urgent to develop skills, take into account social and environmental factors, comprehend risks and opportunities better, and offer financing options.

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