

ANALYSIS OF ESG MUTUAL FUNDS IN INDIA – A NEW DIMENSION OF SUSTAINABLE INVESTING

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Abstract

Sustainable Investing (SI) refers to any investment approach integrating ESG factors into selecting and managing investments. One of the most significant instruments of SI is ESG Mutual Funds. Considering the gravity of ESG mutual funds as an effective medium of SI, this study analyzes the performance of ESG mutual funds in India. This study employs both exploratory and empirical methods to shed light on the present landscape of ESG Mutual Funds. A secondary dataset constructed based on individual mutual funds' databases, reports provided by AMFI and NSE. SBIEF has the largest fund size among the reported funds, while QBSF has the smallest. The expense ratio is particularly high for INVVF, AISF, ABSLF, and SBIEF. In contrast, MANF has the lowest expense ratio. QF is the best performer in up markets with high risk but excellent returns and strong downside protection. ICICIEF provides solid returns with the lowest risk, excelling in down markets. INVVF and SBIEF offer balanced performance.

Keywords: Sustainable Investing, ESG, Fund Size, Expense Ratio.

I. INTRODUCTION

Sustainable Investing refers to any investment approach integrating Environmental, Social and Governance (ESG) factors into selecting and managing investments. In other words, sustainable investing is explained as a long-term approach to finance and investing, emphasizing long-term thinking, decision-making and value creation and is described as the interrelationships that exist between ESG issues on the one hand, and financing, lending and investment decisions on the other and long-term oriented financial decision making that integrates ESG considerations (**Koenigsmarck & Geissdoerfer, 2023, pp. 7-8**).

Sustainable finance has become a prominent initiative and is gaining traction as the world faces challenges relating to climate change, biodiversity, health, financial inclusion, livelihood, women empowerment and food security. As a result, organisations, investors, financial intermediaries and other stakeholders

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are taking into account ESG assessments in their investment decisions. Considering that investors and asset managers are key pillars in the sustainable finance structure, SEBI has issued regulatory guidelines for ESG investing. There are several instruments associated with sustainable finance. One of the most significant instruments is ESG Mutual Funds.

In May 2022, SEBI constituted an ESG Advisory Committee (EAC) which, inter alia, provided recommendations for expanding the disclosure norms for ESG funds through public consultations¹. Subsequently, the SEBI (Mutual Funds) Regulations, 1996 (MF Regulations) were amended on 27 June 2023 to inter-alia specify that the funds under ESG schemes should be invested in the manner as specified by SEBI. Accordingly, on 20 July 2023, SEBI issued a circular [**Circular No.: SEBI/HO/IMD/IMD-I –PoD1/P/CIR/2023/125**] for mutual funds, implementing some key measures to facilitate green financing with a thrust on enhanced disclosures and mitigation of green washing risk (circular on ESG investing). SEBI with this particular circular focused on four things which are –

- **Multiple Strategies under ESG Schemes** - SEBI has now introduced a separate subcategory for ESG investments under the thematic category of equity schemes, by including six new strategies that the mutual funds can adopt to align their investments with ESG considerations. The strategies include:
 - ✓ **Exclusion** – This strategy involves exclusion from a fund or portfolio of certain sectors, companies or practices based on specific criteria such as adverse impact, controversy, faith etc.
 - ✓ **Integration** - Funds adopting this theme will consider ESG-related factors that are material to the risk and return of the investment, alongside traditional financial factors while making investment decisions.
 - ✓ **Best-in-Class and Positive Screening** - This strategy aims to invest in companies and issuers that outperform their peers on one or more ESG performance metrics.
 - ✓ **Impact Investing** - The fund based on this strategy should seek a non-financial (real world) impact and evaluate if that impact is being measured and monitored.
 - ✓ **Sustainable Objectives** - Funds based on this strategy aim to invest in sectors, industries, or companies that are expected to benefit from long-term macro or structural ESG-related trends.

¹ SEBI Consultation Paper on ESG Disclosures, Ratings and Investing issued in February 2023.

- ✓ **Transition or Transition related Investments** - Funds under this category aim to invest in companies and issuers that support/facilitate environmental transition.

In accordance with the Master Circular issued by SEBI, at least 80 per cent of the total Assets Under Management (AUM) of ESG schemes should be invested in equity and equity related instruments of the chosen strategy.

Based on the gravity of ESG mutual funds as an effective medium of sustainable finance and continuous monitoring of SEBI over such funds due to its rising momentum in India, this study takes an attempt to analyze the performance of ESG mutual funds in India. And to do so, this study consists of six sections: Section – I provides the background of the study; Section – II highlights the review of literatures; Section – III mentions the objectives of the study; Section – IV describes the research methodology used in this study; Section – V explains analysis and findings of the study, Section – VI outlines the briefs of the findings and Section – VII concludes the study with some recommendations.

II. REVIEW OF LITERATURES

ESG Mutual Funds is considered as one of the key instruments of sustainable investing (**Cortez et.al., 2009, pp. 573 – 574**). There are several studies on sustainable investing but few studies are associated with ESG Mutual Funds. Some of those studies are mentioned below:

Das et. al. (2018) in their study examined that the Environmental, Social, and Governance (ESG) ratings assigned to the Socially Responsible Mutual Fund (SRMF) signal fund performance over time. **Ibikunle and Steffen (2017)** in their study identified that Green Mutual Funds significantly underperformed relative to conventional funds over the 1994 – 2001 period, while no significant risk-adjusted performance differences between green and black mutual funds could be established during the same period. **Yue et. al. (2020)** in their study suggested that sustainable funds are less risky than traditional funds. **Hemashree (2022)** in her study found that the main reason behind underperformance of ESG funds is Diversification problem. Otherwise, they would perform well in the highly volatile market. **Samant and Singh (2022)** in their study, identified ample evidence of structural shift and thus concluded that the surge in ESG Mutual Funds is largely attributed to the changes brought about by the COVID-19 pandemic. **Sarkar (2022)** in his study indicated that investment in ESG funds is gaining momentum in India, though the growth is still slow as compared to other leading economies of the world. **Vishali and Muhammad (2024)** in their study, opined that SRI enables investors to include environmental, social, and governance considerations in their investing decision-making.

Based on the literatures discussed above, it is quite clear that there are lots of studies dealt with performance of the mutual funds and the effectiveness of the mutual funds as an instrument of wealth generation in the eye of an individual investor. Very few studies are associated with efficacy of ESG Mutual Funds in the current era. Furthermore, there are dearth of literatures analyzing the performance of ESG Mutual Funds in India. Hence this study tries to bridge the gap.

III. OBJECTIVES OF THE STUDY

This study has three specific objectives which are –

- To highlight the basic attributes of the ESG Mutual Funds in India.
- To assess the annualized returns of the ESG Mutual Funds in India.
- To evaluate the risk associated with the ESG Mutual Funds in India.
- To review the governance aspects of the ESG Mutual Funds in India.

IV. DATA & METHODOLOGY

This study employs a descriptive method to shed light on the present landscape of ESG Mutual Funds within the Indian financial market. A secondary dataset constructed based on individual mutual funds' databases, reports provided by AMFI and NSE, as well as relevant published literature. Specifically, the study delves into the performance of select ESG mutual funds. These funds are randomly chosen. No specific statistical method is used for selection of sample funds. In pursuit of this objective, data spanning from April 2023 to March 2024 has been gathered to assess the efficacy of these investment strategies. Table – 1 reflects the details of the sample ESG funds that have been considered for this study.

Table – 1: List of Sample ESG Mutual Funds

SL. No.	ESG Funds	Date of Launch
1.	Quant ESG Equity Fund Direct Growth (QF)	05-11-2020
2.	ICICI Prudential ESG Exclusionary Strategy Fund Direct Growth (ICICIEF)	09-10-2020
3.	Invesco India ESG Equity Fund Direct Growth (INVF)	22-03-2021
4.	Kotak ESG Exclusionary Strategy Fund Direct Growth (KEF)	18-12-2020
5.	Axis ESG Integration Strategy Fund Direct Growth (AISF)	12-02-2020
6.	Aditya Birla Sun Life ESG Integration Strategy Fund Direct Growth (ABSLF)	24-12-2020

7.	Mirae Asset Nifty 100 ESG Sector Leaders Fund of Fund Direct Growth (MANF)	19-11-2020
8.	Quantum ESG Best-In-Class Strategy Fund Direct Growth (QBSF)	12-07-2019
9.	SBI ESG Exclusionary Strategy Fund Direct Growth (SBIEF)	01-01-2013

Source: Morningstar Database

The Indian mutual fund industry offers a wide range of investment plans and opportunities to investors. However, this study focuses exclusively on the evaluation of ESG mutual funds based on their risk and returns. The analysis is based on a specific subset of ESG direct plan mutual funds, and data was collected during the period spanning from 2023 to 2024. Based on Table – 1, it is annualizedly clear that SBI provides investors the ESG fund almost ten years back while others are quite lagged behind SBI.

To compare the basic attributes of Reporting ESG funds operating in Indian financial market, five variables are considered – **(a) Fund Size, (b) Expense Ratio, (c) Large Cap Investment, (d) Net Asset Value and (e) Equity Holding.**

In evaluating the performance of ESG funds in India, this study considers three variables which are – **(a) One Year Annualized Return, (b) Two Years Annualized Return and (c) Three Years Annualized Return.**

On the other hand, in order to assess the risk of the ESG funds, six variables are taken into account which are – **(a) Standard Deviation, (b) Beta, (c) Sharpe Ratio, (d) Treynor Ratio, (e) Jensen’s Alpha and (f) Capture Ratio.**

To assess the governance aspect of the ESG funds, only two variables are considered – **(a) Percentage of Women Director in Board of Directors and (b) Percentage of Women Executive participated in the management.**

V. ANALYSIS & DISCUSSION

Table – 2 reflects five key attributes of reporting ESG funds in India. Large Cap Investment means the portion of total assets of mutual funds invested in the companies with large market capitalizations. Assets Under Management (AUM) or Fund Size are the overall value of the capital held by the mutual fund in the current market. In other words, it is the total market value of the assets that are being managed by the mutual fund. An Expense Ratio is the amount that an investment company charges investors to manage an investment portfolio of a mutual fund. The ratio represents all of the management fees and operating costs of the fund. NAV stands for Net Asset Value. The performance of a mutual fund scheme is denoted by its NAV per unit. NAV per unit is the market value of securities of a scheme divided by the total number of units of the scheme on a

given date. Equity Holding implies how much investment is made in equity shares of other companies by the said mutual fund at a particular point of time.

Table – 2: Attributes of Sample ESG Mutual Funds

ESG Funds	Large Cap Investment (%)	Fund Size (Cr.)	Expense Ratio (%)	NAV (₹)	Equity Holding (%)
QF	41.39	253.71	0.77	33.49	76.09
ICICIEF	46.99	1430.14	0.97	20.05	88.5
INVF	50.39	549.85	1.01	16.84	98.68
KEF	69.86	997.88	0.76	16.71	99.63
AISF	44.24	1362.05	1.23	20.67	78.66
ABSLF	53.35	675.16	1.33	16.2	98.08
MANF	NA	111.07	0.57	16.78	0
QBSF	46.73	81.17	0.84	22.39	95.01
SBIEF	60.05	5422.46	1.31	235.45	96.48

Source: Morningstar Data base and Computation by the Researcher

The largest investment in large cap stocks has been made by KEF, with SBIEF coming in second. Notably, except for MANF, all ESG mutual funds that have reported their investments have allocated more than 40% to large cap stocks. SBIEF has the largest fund size among the reported funds, while QBSF has the smallest. The expense ratio is particularly high for INVF, AISF, ABSLF, and SBIEF. In contrast, MANF has the lowest expense ratio. SBIEF's NAV is significantly high at ₹235.45, whereas the NAV for other reported ESG funds ranges from ₹16 to ₹34. All reported ESG funds, except for MANF, have equity holdings exceeding 75%. However, INVF, ABSLF, and KEF have exceptionally high equity holdings, with each exceeding 98%.

Table – 3 discloses performance of the Reporting Mutual Funds in terms of 1 Year Annualized Return, 2 Years Annualized Return and 3 Years Annualized Return provided by the said funds to their respective unit holders. Moreover, a Rank is assigned to all the funds for each of their respective three types of returns. Based on these individual ranking, Total Ranking is calculated. Then, on the basis of average score, Final Rank is assigned to each Reporting ESG Funds in order to compare their respective performance over the years.

Table – 3: Annualized Return of Sample ESG Mutual Funds

ESG Funds	1 Year Annualized Return (%)	Rank	2 Years Annualized Return (%)	Rank	3 Year Annualized Returns (%)	Rank	Rank Total	Rank Average (Rank Total ÷ 3)	Rank Based on Average
QF	49.63	1	31	1	31.1	1	3	1	1
ICICIEF	38.44	2	26	2	17.9	3	7	2.3	2

INVF	35.26	3	20	6	18.4	2	11	3.7	3
KEF	34.08	4	22	4	15.5	6	14	4.7	5
AISF	29.34	5	21	5	14	9	19	6.3	6
ABSLF	28.69	7	18	8	15.8	5	20	6.7	7
MANF	28.15	8	17	9	14	8	25	8.3	9
QBSF	28.15	8	20	7	15	7	22	7.3	8
SBIEF	29.12	6	23	3	17.7	4	13	4.3	4

Source: Morningstar Data base and Computation by the Researcher

The table compares the annualized returns of various ESG mutual funds over 1-year, 2-year, and 3-year periods, ranking them based on their performance in each time frame. Here's an interpretation of the results:

- QF stands out as the top performer, ranking first in all three-time frames (1-year, 2-year, and 3-year returns). With a total rank score of 3 and an average rank of 1, QF is the best-performing fund overall.
- ICICIEF is consistently strong, ranking second for both 1-year and 2-year returns, and third for 3-year returns. It has a total rank score of 7 and an average rank of 2.3, making it the second-best fund based on the average rank.
- INVF ranks third overall, with strong 1-year and 3-year returns (third and second place, respectively), but it falls to sixth place for 2-year returns. Its total rank score is 11, with an average rank of 3.7.
- SBIEF performs well, particularly for 2-year returns where it ranks third. It has a total rank score of 13 and an average rank of 4.3, making it the fourth-best fund.
- KEF is the fifth-best fund overall, with consistent rankings across the time frames, particularly in the middle of the pack (fourth, fourth, and sixth place). Its total rank score is 14, with an average rank of 4.7.
- AISF and ABSLF both rank lower overall, with AISF coming in sixth and ABSLF seventh. Both funds have higher rank totals and averages, indicating less consistent performance over the time periods.
- QBSF and MANF are among the lower performers, with QBSF ranking eighth and MANF ninth. Both funds have a total rank score above 20 and average ranks of 7.3 and 8.3, respectively, reflecting their weaker performance relative to the others.

In summary, QF is the clear leader in performance, followed by ICICIEF and INVF. SBIEF and KEF also show relatively strong performance, while AISF, ABSLF, QBSF, and MANF lag behind.

The Table – 4 provides descriptive statistics for the 1-year, 2-year, and 3-year annualized returns of a sample of seven ESG mutual funds.

Table – 4: Descriptive Statistics of Return Aspect

RETURNS	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis		Range
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error	Statistic
1 Year Annualized Return (%)	9	28.15	49.63	33.4289	7.11372	1.712	0.717	2.982	1.400	21.48
2 Years Annualized Return (%)	9	17.12	31.39	22.0022	4.42225	1.293	0.717	1.675	1.400	14.27
3 Year Annualized Returns (%)	9	13.99	31.14	17.7078	5.29857	2.467	0.717	6.652	1.400	17.15

Source: Computed Results by SPSS

The results from Table – 4 can be interpreted as follows:

1. 1-Year Annualized Return (%)

The lowest return observed is 28.15%. The highest return observed is 49.63%. The average return is 33.43%. The variability or spread of the returns around the mean is 7.11%. A higher standard deviation indicates more variability in returns. The skewness is 1.712, indicating that the distribution of returns is positively skewed. This means that the returns are skewed to the right, with a longer tail on the higher return side. The kurtosis is 2.982, suggesting that the distribution is relatively normal but with slightly more peaked-ness compared to a normal distribution. The difference between the maximum and minimum returns is 21.48%.

2. 2-Year Annualized Return (%)

The lowest return observed is 17.12%. The highest return observed is 31.39%. The average return is 22.00%. The variability or spread of the returns around the mean is 4.42%, lower than the 1-year period, indicating less variability in returns over a 2-year period. The skewness is 1.293, indicating positive skewness, but less pronounced than in the 1-year period. This suggests that there are fewer high-return outliers compared to the 1-year period. The kurtosis is 1.675, which is less than 3, indicating a flatter distribution with lighter tails compared to a normal distribution. The difference between the maximum and minimum returns is 14.27%, which is narrower compared to the 1-year period.

3. 3-Year Annualized Return (%)

The lowest return observed is 13.99%. The highest return observed is 31.14%. The average return is 17.71%. The variability or spread of the returns around the mean is 5.30%, indicating a moderate spread of returns. The skewness is 2.467, indicating a strong positive skewness, with a higher concentration of lower returns and a few high-return outliers. The kurtosis is 6.652, indicating a leptokurtic distribution, meaning there are more extreme values (outliers) than would be expected in a normal distribution. The difference between the maximum and minimum returns is 17.15%, indicating a moderate spread.

Summary Interpretation:

- **Returns Over Time:** The mean return decreases as the time period increases, with 1-year returns being the highest and 3-year returns being the lowest. This could suggest that shorter-term investments in this sample have higher returns but also higher variability.
- **Variability and Risk:** The standard deviation decreases from 1-year to 2-year returns but increases slightly in the 3-year period, indicating that 2-year returns are the least volatile.
- **Distribution Shape:** The skewness and kurtosis indicate that all three return periods have distributions that are not perfectly normal, with positive skewness and varying degrees of peaked-ness and tail weight, particularly in the 3-year period, which shows significant outliers.
- **Range:** The range narrows from 1-year to 2-year, but slightly widens again in the 3-year period, suggesting that while there is some moderation in the variability of returns over time, there are still outliers that cause fluctuations.

Overall, the data suggest that shorter-term returns (1-year) offer higher average returns but with greater variability and risk, while longer-term returns (2- and 3-year) are lower on average but offer more consistency, although the 3-year period shows some extreme values.

Table – 5: Risk Analysis of Sample ESG Mutual Funds

ESG Funds	Risk-Free Rate (%)	Standard Deviation	Beta	Sharpe Ratio	Treynor Ratio	Jensen's Alpha	Upside Capture Ratio	Downside Capture Ratio
QF	7	15.82	1.04	1.38	0.21	12.21	147	91
ICICIEF	7	10	0.73	0.97	0.13	2.96	91	64
INVF	7	11.68	0.87	0.79	0.11	1.13	103	92
KEF	7	11.96	0.91	0.6	0.08	-1.25	100	102
AISF	7	11.21	0.76	0.46	0.07	-1.92	85	99
ABSLF	7	12.36	0.93	0.52	0.07	-2.17	97	103

MANF	7	11.71	0.96	0.63	0.08	-0.97	93	98
QBSF	7	11.04	0.85	0.65	0.08	-0.67	88	83
SBIEF	7	11.65	0.9	0.79	0.1	0.92	94	81

Source: <https://www.moneycontrol.com>

This table provides a comprehensive risk analysis of ESG mutual funds, including additional metrics like the Upside Capture Ratio and Downside Capture Ratio, alongside traditional risk metrics like standard deviation, beta, Sharpe ratio, Treynor ratio, and Jensen's Alpha. Here's the interpretation:

1. QF

- **Standard Deviation:** 15.82 (Highest risk/volatility)
- **Beta:** 1.04 (Slightly more volatile than the market)
- **Sharpe Ratio:** 1.38 (Highest risk-adjusted return)
- **Treynor Ratio:** 0.21 (Best return relative to market risk)
- **Jensen's Alpha:** 12.21 (Strong outperformance)
- **Upside Capture Ratio:** 147 (Excellent ability to capture market gains, outperforming the market by 47% during up markets)
- **Downside Capture Ratio:** 91 (Loses 91% as much as the market during down markets)

QF is the top performer, with high risk but excellent risk-adjusted returns and strong outperformance. It significantly outperforms in rising markets while controlling losses in falling markets.

2. ICICIEF

- **Standard Deviation:** 10.00 (Lowest volatility)
- **Beta:** 0.73 (Less volatile than the market)
- **Sharpe Ratio:** 0.97 (Good risk-adjusted return)
- **Treynor Ratio:** 0.13 (Moderate return relative to market risk)
- **Jensen's Alpha:** 2.96 (Outperformance)
- **Upside Capture Ratio:** 91 (Performs slightly under the market during up markets)
- **Downside Capture Ratio:** 64 (Significantly outperforms during down markets, losing only 64% as much as the market)

ICICIEF is a strong performer with low risk and good risk-adjusted returns. It captures less of the market gains but excels in protecting against losses in down markets, making it suitable for conservative investors.

3. INVF

- **Standard Deviation:** 11.68
- **Beta:** 0.87 (Less volatile than the market)
- **Sharpe Ratio:** 0.79

- **Treynor Ratio:** 0.11
- **Jensen's Alpha:** 1.13 (Slight outperformance)
- **Upside Capture Ratio:** 103 (Slightly outperforms the market in up markets)
- **Downside Capture Ratio:** 92 (Loses 92% as much as the market during down markets)

INVF shows moderate risk and decent risk-adjusted returns, slightly outperforming in both up and down markets, making it a balanced option.

4. KEF

- **Standard Deviation:** 11.96
- **Beta:** 0.91
- **Sharpe Ratio:** 0.60
- **Treynor Ratio:** 0.08
- **Jensen's Alpha:** -1.25 (Underperformance)
- **Upside Capture Ratio:** 100 (Matches market performance in up markets)
- **Downside Capture Ratio:** 102 (Slightly underperforms in down markets, losing more than the market)

KEF has moderate risk but lower risk-adjusted returns and underperforms in both up and down markets, particularly during declines.

5. AISF

- **Standard Deviation:** 11.21
- **Beta:** 0.76
- **Sharpe Ratio:** 0.46 (Lowest Sharpe ratio)
- **Treynor Ratio:** 0.07
- **Jensen's Alpha:** -1.92 (Significant Underperformance)
- **Upside Capture Ratio:** 85 (Underperforms in up markets)
- **Downside Capture Ratio:** 99 (Nearly matches the market in down markets)

AISF has relatively low risk but offers poor risk-adjusted returns, underperforming in up markets while nearly matching the market's losses in down markets.

6. ABSLF

- **Standard Deviation:** 12.36
- **Beta:** 0.93
- **Sharpe Ratio:** 0.52
- **Treynor Ratio:** 0.07
- **Jensen's Alpha:** -2.17 (Most significant underperformance)
- **Upside Capture Ratio:** 97 (Slightly underperforms in up markets)
- **Downside Capture Ratio:** 103 (Performs worse than the market in down markets)

ABSLF has moderate risk but poor risk-adjusted returns and the most significant underperformance, with a tendency to underperform in both up and down markets, particularly during downturns.

7. MANF

- **Standard Deviation:** 11.71
- **Beta:** 0.96
- **Sharpe Ratio:** 0.63
- **Treynor Ratio:** 0.08
- **Jensen's Alpha:** -0.97 (Underperformance)
- **Upside Capture Ratio:** 93 (Underperforms in up markets)
- **Downside Capture Ratio:** 98 (Slightly outperforms in down markets)

MANF has moderate risk and moderate risk-adjusted returns but underperforms in up markets while offering some protection in down markets.

8. QBSF

- **Standard Deviation:** 11.04
- **Beta:** 0.85
- **Sharpe Ratio:** 0.65
- **Treynor Ratio:** 0.08
- **Jensen's Alpha:** -0.67 (Underperformance)
- **Upside Capture Ratio:** 88 (Underperforms in up markets)
- **Downside Capture Ratio:** 83 (Performs well in down markets, losing less than the market)

QBSF has relatively low risk and moderate risk-adjusted returns. It underperforms in up markets but offers strong protection in down markets, making it a defensive choice.

9. SBIEF

- **Standard Deviation:** 11.65
- **Beta:** 0.90
- **Sharpe Ratio:** 0.79
- **Treynor Ratio:** 0.10
- **Jensen's Alpha:** 0.92 (Slight outperformance)
- **Upside Capture Ratio:** 94 (Slight underperformance in up markets)
- **Downside Capture Ratio:** 81 (Best performer in down markets, losing only 81% as much as the market)

SBIEF offers decent risk-adjusted returns with moderate risk. It slightly underperforms in up markets but excels in protecting against losses in down markets, making it a strong defensive option.

QF is the best performer in up markets with high risk but excellent returns and strong downside protection. ICICIEF provides solid returns with the lowest risk, excelling in down markets. INV F and SBIEF offer balanced performance, with SBIEF particularly strong in down markets. KEF, AISF, ABSLF, MANF, and QBSF generally underperform, with QBSF offering the best downside protection among these. ABSLF is the weakest performer, particularly in down markets.

Table – 6: Governance Aspects of the ESG Funds

ESG Funds	QF	ICICIEF	INV F	KEF	AISF	ABSLF	MANF	QEF	SBIEF
Women Director (%)	14	21	23	18	26	19	19	21	18
Women Executive (%)	8	13	10	6	15	9	10	9	10

Source: Compilation by the Researchers

Table – 6 exhibits the Governance aspects of Reporting ESG Mutual Funds and hence it can be stated as follows:

General Observations:

1. Women Directors:

- The highest representation of women directors is in AISF (26%), while the lowest is in QF (14%).
- Many funds have around 18-23% of women directors, indicating a moderate level of female representation on boards across these ESG funds.

2. Women Executives:

- AISF has the highest representation of women executives (15%), while KEF has the lowest (6%).
- Most funds have women executive representation between 8% and 13%, which is generally lower than the percentage of women directors.

Specific Fund Observations:

- 1. AISF:** This fund stands out with the highest percentages in both women directors (26%) and women executives (15%). This suggests a strong commitment to gender diversity at both the board and executive levels.
- 2. QF:** This fund has the lowest representation of women directors (14%) and one of the lower percentages of women executives (8%), indicating less gender diversity compared to other funds.
- 3. KEF:** Although it has a relatively average percentage of women directors (18%), it has the lowest percentage of women executives (6%), showing a

significant drop in gender representation from the board level to the executive level.

4. ICICIEF and QEF: Both funds have similar levels of women directors (21%) and executives (13% and 9%, respectively). This suggests a moderate and somewhat balanced representation of women in both roles.

Comparative Analysis - Director vs. Executive Representation:

Across most funds, the percentage of women in director roles is higher than in executive roles. This could indicate that while women are being included at the board level, fewer are advancing to or being placed in top executive positions. AISF is an exception where both percentages are relatively high, suggesting a more integrated approach to gender diversity.

Overall, the data suggest that while there is a presence of women in both director and executive roles within these ESG funds, the representation is generally higher at the director level than at the executive level. AISF appears to be the most gender-diverse fund in both categories, while QF and KEF have the lowest representation in at least one category. The differences between funds highlight varying levels of commitment to gender diversity across these ESG funds.

Table – 7: Descriptive Statistics of Governance Aspect

Governance	Statistic	Range	Min.	Max.	Mean	Std. Dev.	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error						
Women Director (%)	9	12	14	26	19.89	3.408	0.171	0.717	0.834	1.400
Women Executive (%)	9	9	6	15	10.00	2.646	0.677	0.717	0.786	1.400

Source: Computed Results by SPSS

The results arising out of Table – 7 can be described as follows:

The percentages of women directors show a higher average and less skewed distribution compared to women executives. The distribution of women executives has a more noticeable positive skew, suggesting that while most companies have lower percentages, a few have significantly higher percentages of women in executive roles. The kurtosis values close to 1 indicate distributions that are fairly normal but slightly more peaked.

VI. SUMMARY OF FINDINGS

The study critically examined the attributes, performance, risk profile, and governance aspects of ESG mutual funds in India. The findings provide valuable insights into the evolving nature of sustainable investing within the Indian financial market:

1. Fund Attributes

- SBI ESG Exclusionary Strategy Fund (SBIEF) emerged as the largest in terms of fund size, while Quantum ESG Best-In-Class Strategy Fund (QBSF) was the smallest.
- Expense ratios varied considerably, with INV F, AISF, ABSLF and SBIEF charging relatively higher fees, whereas MANF had the lowest.
- Except for MANF, all funds reported significant equity holdings exceeding 75%, with KEF, ABSLF, and INV F holding more than 98% in equities.

2. Performance Analysis

- QF consistently outperformed its peers, ranking first across one-year, two-year, and three-year returns.
- ICICIEF demonstrated stable performance with low volatility, making it the second-best fund overall.
- INV F and SBIEF showed balanced performances, securing mid-level rankings, while funds like QBSF and MANF remained at the bottom due to weaker returns.
- The descriptive statistics revealed that shorter-term investments (1-year) produced higher average returns but carried greater variability, while longer-term returns (3-year) were lower but more stable, albeit with outliers.

3. Risk Assessment

- QF, despite being the riskiest (highest standard deviation and beta), delivered the best risk-adjusted returns (highest Sharpe ratio and Jensen's Alpha). It also showed exceptional upside capture while moderating downside losses.
- ICICIEF was the least volatile, excelling in down markets and offering strong protection against losses, making it a conservative choice.
- INV F and SBIEF presented balanced risk-return profiles, with SBIEF particularly effective in downside risk management.
- Other funds, such as AISF, ABSLF, KEF, and MANF, underperformed in both up and down markets, with ABSLF recording the weakest results overall.

4. Governance Dimensions

- Women's representation in governance varied across funds. AISF stood out

with the highest proportion of women directors (26%) and executives (15%), reflecting stronger gender diversity.

- QF had the lowest representation of women on boards (14%) and among executives (8%), indicating weaker governance inclusivity.
- A general trend showed higher female representation at the board level compared to executive roles, suggesting a gap in upward mobility within ESG fund governance structures.

Overall, the findings suggest that ESG mutual funds in India represent a diverse landscape where certain funds like QF and ICICIEF demonstrate strong potential, combining financial performance with effective risk management, while others lag behind in consistency and governance inclusivity. These results reinforce the dual importance of financial and non-financial dimensions in evaluating ESG funds, positioning them as an evolving yet promising vehicle for sustainable investing in India.

VII. CONCLUSION AND RECOMMENDATION

ESG mutual funds in India represent a growing segment of the financial market that aligns with the increasing global focus on sustainable and responsible investing. These funds aim to generate long-term returns by investing in companies that adhere to strong ESG principles, balancing financial performance with a positive impact on society and the environment.

The rise of ESG mutual funds in India is driven by a combination of regulatory initiatives, increasing awareness among investors, and a shift towards more sustainable business practices by Indian companies. Investors are increasingly recognizing that companies with strong ESG practices are likely to be more resilient, face lower regulatory and reputational risks, and potentially deliver better long-term returns.

Despite their growing popularity, ESG mutual funds in India still face challenges, including limited availability of standardized ESG data, the need for greater transparency, and the challenge of educating investors about the importance and benefits of ESG investing. However, with continued regulatory support and increasing demand from socially conscious investors, the ESG mutual fund market in India is poised for significant growth.

In conclusion, ESG mutual funds in India offer a promising avenue for investors seeking to align their financial goals with their values, contributing to a more sustainable and equitable future. As the market matures, these funds are expected to play an increasingly important role in shaping the investment landscape in India.

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