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Performance Evaluation of ESG Mutual Funds in the Indian Financial Landscape

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Abstract

Mutual funds have been steadily gaining widespread acceptance on a global scale, with the consistent growth in trade volumes serving as a clear testament to their popularity. Nevertheless, they are accompanied by a significant level of risk, characterized by heightened price volatility and a lack of robust regulatory measures. With the growing emphasis on sustainable investing worldwide, the Indian financial market has been witnessing a burgeoning interest in investment vehicles focused on environmental, social, and governance (ESG) principles. Despite this, ESG mutual funds have not fully harnessed their potential to contribute to the further evolution of financial markets due to several challenges. Among these challenges, one prevailing issue is ethical investment practices. In this context, this paper endeavors to analyze the trends, performance, and the key factors that influence the adoption of ESG-focused mutual funds within the Indian market.

Key Words: ESG, AMCS', CAGR, SD, Alpha, Beta.

1. Introduction

ESG (Environmental, Social, and Governance) Mutual Funds are playing a pivotal role and investment vehicles that integrate sustainability factors into their decision-making process. They Focus on many a number of laudable objectives such as positive environmental

impact, ethical social practices; generate competitive returns, fund strategies, performance metrics, reflecting growing investor awareness of societal and environmental concerns and robust governance structures etc. And these funds seek to align financial returns with responsible investing, aiming to create

long-term value for investors while contributing to a more sustainable world. Few facts presented below signify their importance and contribution to the Indian financial markets. Therefore, these mutual funds are rightly called the backbone of India's financial markets. Though these emerging funds are contributing substantially, they are facing many a number of problems, including impact measurement is essential for informed investment decisions in this evolving landscape.

2. Problem Statement

The mutual fund industry stands out as a highly favored investment option in India. Nevertheless, the abundance of available schemes poses a challenge for retail investors when it comes to making informed choices. While a fund's historical track record holds significance, it is vital to recognize that past performance alone cannot reliably predict future results. It serves as a quantitative metric for evaluating a fund's performance. Thus, there is a compelling need to accurately assess the historical performance of ESG (Environmental, Social, and Governance) mutual funds, while also identifying performance indicators that can shed light on the stock selection quality of different Asset Management Companies (AMCs). The underlying objective of this study is to

investigate the returns generated by ESG schemes and the associated risk levels in comparison to the broader market and risk-free interest rates.

3. Research Objectives

In view of the aforementioned context, this paper endeavors to assess the efficacy of ESG mutual funds. Clearly, comprehensively evaluating the performance of these funds across various facets within the confines of a single paper is quite challenging. Consequently, the primary objective of this study is to concentrate on appraising the performance of select ESG mutual funds in relation to their annual returns, quarterly performance, prevailing trends, and related parameters.

4. Methodological Framework

Due to evident constraints, this research primarily relies on existing data and sources. The primary data source is derived from the website <https://www.moneycontrol.com/>.

Additionally, pertinent statistics and details are sourced from several other secondary outlets, including reports, websites, journals, reference books, business publications, and more.

In order to assess and scrutinize the performance of specific thematic mutual

fund schemes within the Indian context, focusing on their trends, returns, and risk profiles, a variety of financial ratios and statistical tools have been employed. The analytical techniques encompass the calculation of averages, identification of maximum and minimum values, determination of standard deviations, analysis of Beta and Sharpe Ratios,

assessment of Jensen's Alpha and Treynor's Ratio, and computation of Compound Annual Growth Rate (CAGR). It is essential to apply these tools to analyze the performance statistics and to achieve the research objectives. Moreover, the study encompasses a three-year period, spanning from 2020 to 2022.

5 Discussions and Results

Table – 1: Quarterly Returns of Selected ESG Mutual Funds in India

Schemes	Q2'23	Q1'23	Q4'22	Q3'22	Q2'22	Q1'22	Q4'21	Q3'21	Q2'21	Q1'21
SBI Magnum Regular Plan	13%	-4%	3%	9%	-12%	-2%	4%	11%	8%	5%
SBI Magnum Direct Plan	13%	-3%	3%	9%	-12%	-2%	4%	11%	8%	5%
ICICI Prudential Regular Plan	12%	-2%	2%	9%	-10%	-5%	0%	6%	10%	3%
ICICI Prudential Direct Plan	12%	-1%	3%	10%	-10%	-4%	1%	7%	11%	4%
Kotak ESG Opportunities Regular Plan	11%	-6%	7%	9%	-16%	-1%	0%	8%	8%	3%
Kotak ESG Opportunities Direct Plan	11%	-6%	7%	9%	-15%	-1%	0%	8%	8%	4%
Aditya Birla Sun Life Regular Plan	12%	-4%	-1%	11%	-17%	-7%	4%	16%	7%	5%
Aditya Birla Sun Life Direct Plan	12%	-3%	0%	12%	-16%	-7%	5%	16%	8%	5%

Axis Fund - Direct Plan	11%	-2%	3%	7%	-14%	-7%	2%	13%	8%	1%
Axis Regular Plan	11%	-2%	3%	6%	-14%	-8%	2%	12%	8%	1%
Quant Regular Plan	13%	-9%	4%	18%	-13%	7%	5%	16%	18%	12%
Quant Direct Plan	14%	-8%	4%	19%	-12%	7%	5%	16%	18%	12%
Average	12%	-4%	3%	11%	-13%	-3%	3%	12%	10%	5%
Maximum	14%	-1%	7%	19%	-10%	7%	5%	16%	18%	12%
Minimum	11%	-9%	-1%	6%	-17%	-8%	0%	6%	7%	1%

Source: Compiled from the data retrieved from, <https://www.moneycontrol.com/>

It is obvious from the above that the average returns across all funds have been positive, with the highest average return in Q2'23 (12%) and the lowest in Q1'23 (-4%). The funds generally exhibited a positive performance trend, with only a few exceptions of negative returns in certain quarters (Q1'23 and Q3'21). SBI Magnum Equity ESG Fund and ICICI Prudential ESG Fund both showed consistent performance in both regular and direct plans. The Kotak ESG Opportunities Fund also demonstrated stable performance. Aditya Birla Sun Life ESG Fund and Axis ESG Equity Fund had a moderate degree of volatility but generally displayed positive returns. The Quant ESG

Equity Fund, both in regular and direct plans, showed the highest returns in Q2'23 (14% and 13%, respectively) and also displayed the highest returns in Q4'22, Q3'22, and Q2'21. The funds from SBI, ICICI, and Kotak showed consistent performance and did not exhibit extreme highs or lows. Axis ESG Equity Fund and Aditya Birla Sun Life ESG Fund, especially in regular plans, had relatively lower returns in some quarters. The average returns over the analyzed quarters were positive (ranging from -4% to 12%), indicating that these ESG mutual funds have generally been successful in generating returns for their investors.

Table– 2: Yearly Returns of Selected ESG Mutual Funds in India

Schemes	2022	2021	2020	Average	CAGR
SBI Magnum Regular Plan	-2%	29%	13%	13%	-1.56
SBI Magnum Direct Plan	-2%	30%	14%	14%	-1.49
ICICI Prudential Regular Plan	-4%	21%	11%	9%	-1.69
ICICI Prudential Direct Plan	-2%	23%	13%	11%	-1.56
Kotak ESG Opportunities Regular Plan	-1%	20%	1%	7%	-2.10
Kotak ESG Opportunities Direct Plan	0%	22%	1%	8%	-0.36
Aditya Birla Sun Life Regular Plan	-13%	36%	0%	7%	-5.06
Aditya Birla Sun Life Direct Plan	-12%	38%	0%	9%	-4.91
Axis Fund - Direct Plan	-11%	26%	36%	17%	-1.67
Axis Regular Plan	-12%	24%	34%	15%	-1.71
Quant Regular Plan	16%	61%	17%	31%	-0.02
Quant Direct Plan	18%	63%	17%	33%	0.01
Average	-2%	33%	13%	15%	
Maximum	18%	63%	36%	33%	
Minimum	-13%	20%	0%	7%	

Source: Compiled from the data retrieved from, <https://www.moneycontrol.com/>

From the above, it is unequivocal that the average returns of the funds were positive, with an average annual return of 15%. 2021 seems to have been a strong year for most funds, with the highest average returns observed across all funds (33%). 2020 had a wide variation in performance, ranging from 36% of the Axis ESG Equity Fund to 0% for several funds. In 2022, most funds experienced negative or low returns, contributing to the negative average return (-2%). Aditya Birla Sun Life ESG Fund - Direct Plan had the highest average returns over the three-year period (38%), closely followed by the

Quant ESG Equity Fund - Direct Plan (33%). Kotak ESG Opportunities Fund - Regular Plan and Axis ESG Equity Fund - Regular Plan had relatively lower average returns. The negative returns in 2022 could be attributed to challenging market conditions, which might have affected the performance of these funds. The strong positive returns in 2021 indicate a favorable market environment for ESG-focused funds. CAGR measures the annualized rate of return over a specific period, smoothing out the volatility of returns. Most of the funds have negative CAGR values, indicating that their

investment value decreased over the specified period. "Kotak ESG Opportunities Fund - Regular Plan" has the lowest CAGR (-2.10), indicating the highest decline in value. "Quant ESG close to zero CAGR values.

Equity Fund - Direct Plan" has the highest CAGR (0.01), indicating a very minimal positive growth. "Quant ESG Equity Fund - Regular Plan" and "Quant ESG Equity Fund - Direct Plan" stand out with very

Table – 3: Trend Analysis of Yearly Return of Selected ESG Mutual Funds in India

Schemes	2022	2021	2020
SBI Magnum Regular Plan	-17%	213%	100%
SBI Magnum Direct Plan	-12%	207%	100%
ICICI Prudential Regular Plan	-33%	194%	100%
ICICI Prudential Direct Plan	-17%	177%	100%
Kotak ESG Opportunities Regular Plan	-132%	1931%	100%
Kotak ESG Opportunities Direct Plan	26%	1947%	100%
Aditya Birla Sun Life Regular Plan	-6710%	17845%	100%
Aditya Birla Sun Life Direct Plan	-5975%	19065%	100%
Axis Fund - Direct Plan	-30%	71%	100%
Axis Regular Plan	-35%	69%	100%
Quant Regular Plan	94%	361%	100%
Quant Direct Plan	104%	369%	100%
Average	-1061%	3537%	100%
Maximum	104%	19065%	100%
Minimum	-6710%	69%	100%

Source: Compiled from the data retrieved from, <https://www.moneycontrol.com/>

It is clear from the above table, in 2020, most of the funds exhibited substantial growth, with "Aditya Birla Sun Life ESG Fund" (both regular and direct plans) and "Kotak ESG Opportunities Fund" (regular plan) experiencing exceptionally high returns. 2021 saw further growth for most funds, especially "Aditya Birla Sun Life ESG Fund" (both plans) and "Kotak ESG

Opportunities Fund" (direct plan). In 2022, the trend reversed, and several funds experienced negative returns, including "Kotak ESG Opportunities Fund" (regular plan) and "Aditya Birla Sun Life ESG Fund" (both plans). "Aditya Birla Sun Life ESG Fund" (both plans) had extremely high returns in 2021 and remarkably high negative returns in 2022, reflecting

significant volatility. "Kotak ESG Opportunities Fund" (regular plan) showed an extreme negative return in 2020 followed by strong positive returns in 2021, and then a negative return in 2022. The average yearly return of all funds in 2020 was -1061%, indicating an overall decline, likely due to extreme negative returns of certain funds. The average yearly return for 2021 was 3537%, indicating substantial overall growth. The return trend reversed in 2022, with an

average yearly return of 100%, suggesting a more stable performance compared to the extreme fluctuations of the previous two years. The data show that ESG mutual funds experienced both exceptional growth and significant declines over the analyzed years. The extreme values indicate high volatility and the potential for substantial gains or losses. Investors need to carefully consider the historical performance, risk tolerance, and their investment horizon when evaluating these funds.

Table – 4: Performance analysis of Selected ESG Mutual Funds in India

Schemes	SD	Beta	Sharpe Ratio	Jenson's Alpha	Treynor's Ratio
SBI Magnum Regular Plan	14.91	0.97	0.91	0.56	0.14
SBI Magnum Direct Plan	14.92	0.97	0.96	1.27	0.15
ICICI Prudential Regular Plan	12.14	0.75	0.75	-0.99	0.12
ICICI Prudential Direct Plan	12.16	0.75	0.86	0.41	0.14
Kotak ESG Opportunities Regular Plan	14.28	0.90	0.31	-7.72	0.05
Kotak ESG Opportunities Direct Plan	14.29	0.90	0.43	-5.99	0.07
Aditya Birla Sun Life Regular Plan	15.48	0.97	0.34	-7.81	0.05
Aditya Birla Sun Life Direct Plan	15.45	0.97	0.45	-6.08	0.07
Axis Fund - Direct Plan	13.63	0.79	0.66	-1.60	0.11
Axis Regular Plan	13.63	0.78	0.77	-0.12	0.13
Quant Regular Plan	18.27	1.00	1.54	14.60	0.28
Quant Direct Plan	18.27	1.00	1.62	16.12	0.30
Average	14.79	0.90	0.80	0.22	0.13

Maximum	18.27	1.00	1.62	16.12	0.30
Minimum	12.14	0.75	0.31	-7.81	0.05

Source: Compiled from the data retrieved from, <https://www.moneycontrol.com/>

It is obvious from the above that the Standard deviation measures the volatility or risk associated with the fund's returns. Funds with higher standard deviations are generally riskier and exhibit greater price fluctuations. Among the analyzed funds, "Quant ESG Equity Fund" in both regular and direct plans has the highest standard deviation (18.27), indicating higher volatility in returns. "ICICI Prudential ESG Fund" in both regular and direct plans has the lowest standard deviation (12.14), suggesting comparatively lower volatility.

Beta measures the fund's sensitivity to market movements. A beta of 1 implies that the fund's returns move in line with the market. Higher beta indicates greater sensitivity to market fluctuations. "Quant ESG Equity Fund" has the highest beta (1.00), indicating a strong correlation with the market. "ICICI Prudential ESG Fund" in both regular and direct plans have relatively lower beta (0.75), suggesting lower sensitivity to market movements.

The Sharpe ratio assesses the risk-adjusted return of a fund. A higher Sharpe ratio indicates better risk-adjusted performance. "Quant ESG Equity Fund" in both regular and direct plans have the highest Sharpe

ratio (1.54 and 1.62 respectively), indicating better risk-adjusted returns. "Kotak ESG Opportunities Fund" in regular and direct plans has the lowest Sharpe ratio (0.31 and 0.43 respectively), implying comparatively lower risk-adjusted performance.

Jensen's Alpha measures the excess return of a fund compared to its expected return based on its beta and the market's risk-free rate. Positive alpha indicates that the fund has outperformed its expected return. Funds with negative alpha have underperformed expectations. "Quant ESG Equity Fund" in both regular and direct plans have the highest Jensen's Alpha (14.60 and 16.12 respectively), implying strong outperformance. Several funds like "Kotak ESG Opportunities Fund" and "Aditya Birla Sun Life ESG Fund" in both regular and direct plans exhibit negative alphas, indicating underperformance.

Treynor's ratio assesses the risk-adjusted return of a fund relative to its systematic risk (beta). Higher Treynor's ratio indicates better returns per unit of systematic risk. "Quant ESG Equity Fund" in both regular and direct plans have the highest Treynor's ratio (0.28 and 0.30 respectively), indicating better risk-adjusted

performance. "Kotak ESG Opportunities Fund" in regular and direct plans have the lowest Treynor's ratio (0.05 and 0.07 respectively), suggesting comparatively lower risk-adjusted performance.

"Quant ESG Equity Fund" stands out in terms of risk-adjusted performance, with high Sharpe ratio, Jensen's Alpha, and Treynor's ratio. Funds like "Kotak ESG Opportunities Fund" and "Aditya Birla Sun Life ESG Fund" exhibit lower risk-adjusted performance metrics, indicating potential challenges in generating returns considering the risk taken. On average, the ESG funds have a Sharpe ratio of 0.80, suggesting a reasonable level of risk-adjusted performance.

6 Conclusion and Way forward

It is obvious from the above factual analysis of the ESG mutual fund performance in the Indian context, in spite of constraints, has been doing a commendable job of assisting financial markets in the country. However, the performance of ESG funds in 2022 varied significantly, with average returns at -1061%, ranging from -6710% to 104%. The previous year, in 2021, these funds delivered exceptional gains, with average returns of 3537%. The extreme fluctuations indicate high risk associated with ESG investing, as evidenced by the

substantial negative returns observed in 2022 compared to the extraordinary gains in 2021. It's essential for investors to carefully assess the volatility and long-term sustainability of ESG funds before making investment decisions.

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