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ASSESSING THE PERFORMANCE OF ESG MUTUAL FUNDS: AN IN-DEPTH ANALYSIS

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ABSTRACT :

The study investigates the performance and operational dynamics of Environmental, Social, and Governance (ESG) mutual funds in comparison to traditional mutual funds, with a focus on the emerging investment landscape in India. As investor interest shifts towards sustainable investing, ESG funds aim to balance financial returns with positive societal impacts. Using a quantitative research approach, this analysis draws on secondary data from reputable financial platforms and evaluates key performance metrics, including the Sharpe ratio, Treynor ratio, Jensen's alpha, and Beta, to assess risk-adjusted returns and volatility across multiple timeframes. The study reveals that while ESG mutual funds align well with investors' values and long-term sustainability goals, they face challenges such as performance variability and limited diversification. The findings underscore the need for enhanced portfolio management strategies to optimize ESG funds' risk-return profiles, making them more competitive with traditional mutual funds. This research contributes to the growing dialogue on sustainable finance and offers insights for investors, asset managers, and policymakers seeking to advance ESG-focused investment strategies.

Keywords: ESG mutual funds, sustainable investing, risk-adjusted returns, financial performance, India

INTRODUCTION :

In recent years, the investment landscape has witnessed a notable shift towards sustainability and ethical considerations. Environmental, Social, and Governance (ESG) criteria have become increasingly important for investors looking to not only generate financial returns but also make a positive impact on society and the environment. In response to this growing demand, ESG mutual funds have emerged as a popular vehicle for incorporating these principles into investment strategies.

The rise of ESG investing reflects a broader recognition among investors that environmental and social factors, along with corporate governance practices, can significantly influence the long-term performance and sustainability of companies. ESG criteria encompass a wide range of factors, including carbon emissions, diversity and inclusion, labor practices, board diversity, and ethical business practices, among others. By integrating these considerations into investment decisions, ESG mutual funds aim to allocate capital towards companies that demonstrate strong ESG performance while avoiding those with poor ESG records.

This study seeks to explore the performance trends of ESG mutual funds, providing a comprehensive analysis of their financial outcomes over time. Understanding the performance dynamics of these funds is crucial for investors, asset managers, and policymakers alike, as it can inform investment decisions, asset allocation strategies, and regulatory frameworks.

One of the primary objectives of this study is to compare the performance of ESG mutual funds with that of traditional mutual funds. By examining historical performance data across various time horizons, we aim to assess whether ESG criteria have a discernible impact on investment returns. Additionally, we seek to identify the specific performance metrics that drive the success or underperformance of ESG mutual funds, shedding light on the factors that contribute to their financial outcomes.

Furthermore, we aim to delve into the nuances of different types of ESG strategies employed by mutual funds, such as exclusionary screening, integration of ESG factors into traditional financial analysis, and thematic investing focused on specific sustainability themes. By analyzing the performance of these different strategies, we aim to provide insights into their effectiveness and suitability for investors with varying risk preferences and investment objectives.

In addition to internal factors related to ESG performance, we also aim to explore how external factors, such as market conditions, regulatory developments, and societal trends, influence the performance of ESG mutual funds. Understanding the interplay between these external factors and fund performance is essential for assessing the resilience and adaptability of ESG investment strategies in different market environments.

Overall, this study aims to contribute to the ongoing dialogue surrounding sustainable investing by providing empirical evidence and insights into the performance trends of ESG mutual funds. By shedding light on the financial outcomes of these funds and the factors that drive their performance, we aim to empower investors and stakeholders to make informed decisions that align with their financial goals and ESG priorities.

LITERATURE REVIEW :

The literature survey offers profound insights into the study, serving as a crucial gateway for further exploration and investigation.

Wimmer (2013) conducted a study to explore the longevity of environmental, social, and governance (ESG) scores in socially responsible (SR) mutual funds, which serve as indicators of a fund's level of social responsibility. The study revealed that ESG scores tend to remain stable for approximately two years. However, their persistence diminishes after around three years. This implies that investors seeking high-ESG investments within SR mutual funds cannot depend on sustained strong ESG scores over the long term and should periodically adjust their portfolios. The fluctuation in ESG scores over time is primarily attributed to changes in the holdings of SR mutual funds.

Gunnar Friede (2015), portrayed the most comprehensive examination of scholarly literature on the subject to date, allowing for broad and applicable conclusions. The findings underscore the robust empirical support for ESG (Environmental, Social, and Governance) investing within the business realm. Approximately 90% of the research reviewed reveals a positive correlation between ESG factors and Corporate Financial Performance (CFP). Moreover, the majority of studies present encouraging outcomes, indicating a consistent and enduring positive impact of ESG considerations on CFP over time. Notably, when considering various factors such as the type of study (portfolio vs. non-portfolio), geographical regions, and emerging asset classes like corporate bonds and green real estate, the results consistently indicate promising prospects for ESG investment.

Trivedi (2015) conducted a scientific assessment of ESG (Environmental, Social, and Governance) investing performance in India, an emerging economy. Using the Capital Asset Pricing Model and Brown-Forsythe Levene's Test, the study compared the risk-return dynamics of the ESG India Index with a traditional benchmark index. Results unequivocally showed that despite its brief existence, the ESG India Index outperformed the traditional index, suggesting that ESG investing can enhance returns without substantially increasing risk. This revelation underscores the potential for investors to achieve superior outcomes without sacrificing performance by investing in highly rated ESG stocks, offering valuable insights for international organizations, governments, and regulatory bodies seeking to promote ESG investments, especially in emerging economies.

PASQUINI-DESCOMPS (2015) has put forth insights regarding the potential influence of news-based ESG (Environmental, Social, and Corporate Governance) scores on monthly stock market returns across Switzerland, the US, and the UK during the period spanning from 2007 to 2011. The study revealed that variations in the overall ESG score were only discernible within the UK market. Furthermore, it was observed that changes in the subcategory ratings for governance, economics, environment, labor, human rights, society, and products, as per the GRI (Global Reporting Initiative), exerted a modest yet significant impact on stock performance, particularly over shorter time frames or within specific industries, contingent upon the respective nation. Lastly, the non-parametric kernel regression analysis indicated a likely non-linear relationship between a stock's performance and changes in its ESG score.

N. C. Ashwin Kumar (2016) challenges the conventional financial wisdom suggesting that lower returns are typically associated with lower risk. Through new mathematical analysis outlined in this article, it is revealed that companies integrating Environmental, Social, and Governance (ESG) factors into their operations demonstrate reduced stock performance volatility compared to their industry counterparts. Furthermore, the study illustrates that the impact of ESG factors varies across different industries, and ESG-oriented companies tend to generate higher returns. The analysis evaluates a total of 809 businesses not listed on the Dow Jones Sustainability Index alongside 157 businesses that are, over a two-year period.

Nandita Das (2018) conducted an evaluation comparing the risk-adjusted performance of socially responsible mutual funds (SRMF) to the market over a 12-year period spanning from 2005 to 2016, utilizing the Fama-French 5-factor model. This comprehensive analysis includes the years leading up to, during, and following the Great Recession. Additionally, the study examines the Environmental, Social, and Governance (ESG) ratings assigned to the SRMF to assess their predictive power regarding fund performance over time. The results indicate that although SRMFs exhibited underperformance relative to the market throughout the period studied, there was no significant deviation in SRMF performance compared to the market during the Great Recession. Moreover, the study highlights that SRMFs with higher ESG ratings outperformed those with lower ratings during this economic downturn.

Ciotti (2020) explores the significant surge of sustainable investments in recent years, as they transition from a specialized sector into mainstream financial markets. This evolution sees ESG (Environmental, Social, and Governance) practices joining traditional risk-return strategies, which historically dominated investors' portfolio decisions. Through a combination of a case study and benchmarking technique, this paper aims to contribute to the ongoing discourse regarding the incorporation of ESG factors in investment selection. The empirical research centers on a two-tier analysis of PIMCO management company's GIS Global Bond ESG Fund (EUR Hedged). The findings suggest that ESG practices should be viewed as a supplementary rather than an alternative approach to portfolio management.

Jie Cao (2020) has examined how socially conscious (SR) institutions prioritize Environmental, Social, and Governance (ESG) performance over quantitative measures of value. This shift in focus leads SR institutions to show less responsiveness to indications of quantitative mispricing. The study suggests that this divergence in attention towards ESG could impact stock return patterns, particularly as stocks held by SR institutions are more prone to experiencing abnormal returns associated with mispricing signals. Notably, the correlation between SR ownership and the effectiveness of mispricing signals has only emerged recently, coinciding with the rise of ESG investment. This correlation becomes significant especially in cases where financial constraints limit arbitrage opportunities.

Quinn Curtis (2021) delves into the rising scrutiny faced by corporations for their contributions to climate change, perpetuation of racial and gender inequities, and disregard for other significant social issues. While governmental changes offer an opportunity for reconsideration, authorities are hindered by a lack of comprehensive understanding of ESG (Environmental, Social, and Governance) investment, given the rapid expansion and evolution of the market. To bridge this gap, the study presents the most comprehensive empirical analysis of ESG mutual funds to date, aiming to provide a nuanced understanding of the current ESG landscape. By amalgamating extensive data on mutual funds with proprietary data from leading ESG ratings agencies, the research seeks to inform regulatory policies effectively.

Stoklasa (2021) conducted an analysis employing the fsQCA techniques, incorporating their most recent updates by Stoklasa, Luukka, and Taláek, to explore potential factors contributing to the strong performance of European ESG funds. The study examined 429 mutual equity growth ESG funds in Europe, focusing on the relationship between the Morningstar sustainability rating and fund performance from 2018 to 2021, as measured by Jensen's alpha and the Sharpe ratio. The findings indicate that while a high sustainability rating for a fund cannot definitively be linked to superior performance, it does seem to mitigate against negative performance outcomes.

Jang (2021) has explored a South Korean-specific ESG framework that incorporates both global and regional elements across the three main areas. The study employs the Analytic Hierarchy Process (AHP) model to evaluate the materiality of these categories and compare country-specific factors with global standards. The findings indicate that institutional investors prioritize environmental and governance factors over social considerations. Key factors such as shareholder rights, waste and pollution management, greenhouse gas emissions, and risk and opportunity management are identified as significant influences on investors' decision-making processes.

Couvert (2022) has investigated the requirement for mutual funds to disclose their standard voting procedures for various issues at shareholder meetings of companies within their portfolios. Over the period from 2006 to 2018, a sample of 29 major mutual fund families in the United States was examined, resulting in the manual collection of 17,000 of these policies. The study suggests that voting practices are strongly influenced by these voting policies. It is demonstrated that investee companies tend to align with the preferred governance provisions of their mutual fund shareholders through incremental adjustments to the funds' voting practices. The active voting participation of mutual fund shareholders is identified as a driving factor behind this alignment. Additionally, publicly announced voting policies also encourage strategic plan submissions from shareholders who do not hold mutual funds.

Gupta (2022) conducted a study aimed at exploring the growth of ESG mutual funds in India and evaluating their performance using various metrics, including stand-alone return and risk indicators, as well as widely recognized risk-adjusted measures such as the Sharpe Index, Treynor Ratio, Sortino Measure, and Jensen's Alpha. The investigation revealed that although the ESG mutual fund sector is still nascent, there is a consistent and favorable upward trajectory in terms of both the number of firms participating and the assets under their management. Performance analysis results indicated that the Quant ESG Equity Fund emerged as the top performer, even when excluding the social benefits associated with sustainable investing. These findings underscore that ESG investments not only facilitate investors in achieving their sustainability objectives but also deliver competitive returns.

Kumar (2022) examined the emergence of international regulatory bodies like the Corporate Sustainability Reporting Directive (CSRD), which encourage businesses to publicly disclose documents such as annual reports and integrated reports covering social, environmental, and human rights issues. ESG considerations in investment decisions focus on evaluating a company's operational impact on the local environment. Pressure from stakeholders like customers, policymakers, investors, and regulatory authorities drives companies to engage in ESG reporting, also known as nonfinancial reporting. Active disclosure of nonfinancial practices is seen as crucial for long-term performance. This study utilizes machine learning techniques, including regression analysis, and performance ratios like Return on Assets and Return on Equity to delve into ESG disclosure and its influence on firm performance.

Sarkar (2022) has highlighted the increasing global acceptance of using Environmental, Social, and Corporate Governance (ESG) scores as criteria for investment selection. Investors aiming for attractive long-term opportunities are advised to consider investment products such as mutual fund schemes grounded in the ESG philosophy. It is suggested that companies adhering to ESG principles are likely to exhibit sustainable performance over time. Following the lead of international counterparts, India has embraced ESG investments within the mutual fund industry. Investments in this sector are anticipated to yield significant returns in the future, as it remains an area that has not yet been fully explored.

Torsten Ehlers (2022) explored the feasibility and effectiveness of specialized investment strategies by deconstructing ESG (Environmental, Social, and Governance) scores into their individual components. Initially, the study scrutinizes the characteristics of various categories underlying ESG scores. However, due to constraints on ESG data disclosure and the challenge of quantifying qualitative attributes, some ESG categories may not be conducive to more targeted approaches. Secondly, the study proposes an investment strategy that involves excluding businesses with the lowest ratings across all ESG categories. However, for certain investors, this exclusion may be undesirable as it can introduce regional and industry biases compared to benchmark portfolios.

Shangchen Li (2023) explored the management overlap within mutual funds that encompass both ESG (Environmental, Social, and Governance) and non-ESG components. They revealed that following the introduction of an ESG counterpart, non-ESG mutual funds tend to include a greater proportion of high ESG stocks, which subsequently exhibit stronger performance. Despite operating within more constrained parameters, ESG funds outshine their non-ESG counterparts in terms of the selection of low ESG stocks. This latter observation aligns with the preferences of fund families towards ESG-oriented funds. Additionally, ESG funds often engage in the trading of illiquid stocks ahead of their non-ESG counterparts and are favored with preferred allocations during initial public offerings (IPOs).

Dr. Shuchita Singh (2023) assessed various portfolios, focusing on the performance of ESG (Environmental, Social, and Governance) mutual fund schemes. The study highlights financial services and technology as the two industries where ESG integrated assets were deemed most intriguing. The primary findings of the study indicate a rise in ESG fund investments in India. However, despite this trend, the country's major economy continues to experience slower growth compared to other affluent nations. This disparity might be attributed to the incomplete adoption of ESG considerations among Indian investors when constructing portfolios. The study offers a comprehensive analysis of portfolio performance and the risk-return ratio.

Rohilla (2023) suggests that ESG (Environmental, Social, and Governance) funds offer a pathway to sustainable growth, advocating for investors to consider them as alternatives to traditional mutual funds for achieving long-term objectives. While the ESG fund industry in India remains relatively unexplored, it is anticipated to yield substantial returns in the future. The study endeavors to address several unresolved issues pertaining to these funds. According to the findings, ESG funds exhibited superior performance compared to the market portfolio during the specified period.

Paul (2023) analyzed the performance of a limited selection of ESG funds over a 24-month period following the Covid-19 pandemic onset. Using metrics like CAGR, Standard Deviation, Sharpe Ratio, Treynor Ratio, Alpha, Beta, and coefficient of determination, the study focused on four ESG funds. Results showed underperformance in terms of CAGR, Sharpe Ratio, and Treynor Ratio, with a trend towards defensive investments. Despite this, the funds maintained reasonable diversity levels consistently.

The literature survey underscores both the advantages and challenges inherent in ESG mutual funds. It has brought to light the imperative of assessing the performance of ESG mutual funds to enhance investment strategies.

OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

- To understand the operations of ESG Mutual funds
- To evaluate the Performance of ESG Mutual funds over the other category funds
- To Identify the benefits or drawback of ESG Mutual funds in new investors

METHODOLOGY

The study is based on secondary data sourced from various reputable platforms including the Motilal Oswal website, Money Control, ESG mutual fund-related journal articles, and the AMFI (Association of Mutual Funds in India) website. Leveraging the Power BI tool enhances the interpretation of data through effective visualization, plots, graphs, and evaluation of outcomes or results.

Data analysis involves comparing the performance of an average of 10 ESG mutual funds with other mutual funds. This comparison is based on statistical methods such as NAV values, Sharpe ratio, Treynor ratio, Jensen's alpha, Standard Deviation, Beta, and Absolute returns (in %) for different time periods ranging from 1 month to 3 years.

The methodology employed is quantitative research, chosen for its ability to provide accurate confirmation by gathering and interpreting numerical data. This approach facilitates prediction, and the findings can be generalized to a broader population. The utilization of software programs expedites the data assessment process, ensuring efficiency and accuracy in analysis.

THE OPERATIONS OF ESG MUTUAL FUNDS

The operations of ESG (Environmental, Social, and Governance) mutual funds encompass a range of activities aimed at aligning investment decisions with sustainability and ethical criteria. These funds typically involve thorough screening processes to evaluate companies based on their environmental impact, social responsibility, and corporate governance practices. Additionally, portfolio managers engage in active management strategies to select investments that meet ESG criteria while also striving to generate competitive financial returns. Furthermore, ESG mutual funds often prioritize engagement with companies to encourage positive change and influence corporate behavior towards sustainability. Overall, the operations of ESG mutual funds reflect a commitment to integrating environmental, social, and governance factors into investment decisions, thereby promoting both financial performance and responsible investing practices.

1. *Investment Strategy*: ESG mutual funds operate with an investment strategy that integrates environmental, social, and governance factors into their investment decisions. This strategy entails screening potential investments based on ESG criteria, selecting companies that demonstrate strong ESG practices, and excluding or minimizing exposure to those with poor ESG performance.
2. *Research and Analysis*: Fund managers conduct extensive research and analysis to identify companies that align with the fund's ESG objectives. This involves assessing companies' environmental impact (e.g., carbon emissions, resource usage), social responsibility (e.g., labor practices, community engagement), and governance practices (e.g., board diversity, executive compensation).
3. *Portfolio Construction*: Once suitable companies are identified, fund managers construct the fund's portfolio by selecting a diversified mix of ESG-compliant securities across various industries and sectors. Portfolio construction aims to optimize risk-adjusted returns while adhering to ESG principles.
4. *Engagement and Advocacy*: ESG mutual funds often engage with companies in their portfolio to encourage improvements in ESG practices. This may involve dialogue with company management, shareholder resolutions, and voting on ESG-related issues at annual meetings. Additionally, some ESG funds may engage in advocacy initiatives to promote broader social and environmental goals.
5. *Transparency and Reporting*: ESG mutual funds prioritize transparency and disclosure of their ESG investment approach and performance. This includes providing investors with detailed information on the fund's ESG screening criteria, portfolio holdings, and ESG-related engagement activities. Regular reporting on ESG performance metrics allows investors to assess the fund's impact and alignment with their values.
6. *Risk Management*: ESG mutual funds incorporate ESG considerations into their risk management processes to mitigate potential risks associated with environmental, social, and governance factors. This may involve identifying and addressing ESG-related risks within the portfolio, such as regulatory compliance issues, reputational risks, and climate change impacts.
7. *Continuous Monitoring and Evaluation*: ESG mutual funds continuously monitor and evaluate the ESG performance of portfolio companies to ensure ongoing alignment with the fund's objectives. This involves tracking key ESG metrics, assessing changes in companies' ESG practices, and making adjustments to the portfolio as needed to maintain alignment with ESG criteria.

Overall, the operations of ESG mutual funds involve a comprehensive approach to integrating environmental, social, and governance considerations into the investment process, with a focus on generating positive financial returns alongside measurable social and environmental impact.

EVALUATION THE PERFORMANCE OF ESG MUTUAL FUNDS OVER THE OTHER CATEGORY FUNDS

ESG MUTUAL FUNDS

ESG Fund names	NAV Values	Sharpe ratio	Treynor ratio	Jension's alpha Standard Deviation	Standard Deviation	Beta

Quant E.S.G Equity Fund	24.29	1.62	0.27	11.47	16.43	0.99
Axis E.S.G. Equity Fund	16.3	0.78	0.12	-2.48	12.38	0.79
ICICI Prudential E.S.G Fund	15.11	0.76	0.11	-3.15	10.72	0.74
SBI Magnum Equity E.S.G. Fund	180.97	1.14	0.16	0.35	13.28	0.96
Kotak E.S.G. Opportunities Fund	12.91	0.26	0.04	-10.47	12.75	0.9
Aditya Birla Sun Life ESG Fund	13.07	0.33	0.05	-10.22	13.7	0.96
HDFC Housing Opportunities	15.73	1.3	0.22	1.08	14.48	0.88
Mirae Asset ESG Sector Leaders ETF	31.53	0.54	0.07	-6.17	13.11	0.99
Franklin Build India Fund	85.82	1.68	0.35	8.33	14.53	0.7
Quantum India E.S.G Equity Fund	18.4	1.24	0.17	1.76	12.18	0.87
ESG funds		**0.965**	**0.156**	**-0.948**	**13.356**	**0.878**

ESG Fund names	1 Month	3 Month	6 Month	1 Year	2 Year	3 Year
Quant E.S.G Equity Fund	9.03%	15.66%	12.57%	23.28%	45.79%	
Axis E.S.G. Equity Fund	3.36%	10.15%	12.82%	14.16%	8.75%	54.16%
ICICI Prudential E.S.G Fund	4.89%	13.11%	12.52%	19.79%	13.45%	
SBI Magnum Equity E.S.G. Fund	4.79%	13.10%	12.31%	17.48%	21.67%	76.13%
Kotak E.S.G. Opportunities Fund	4.60%	10.21%	10.90%	16.24%	11.58%	
Aditya Birla Sun Life ESG Fund	3.32%	12.09%	13.95%	12.57%	12.29%	
HDFC Housing Opportunities	-0.79%	17.56%	26.69%	0.48%	9.45%	-8.98%
Mirae Asset ESG Sector Leaders ETF	3.53%	9.10%	8.03%	12.60%	17.77%	
Franklin Build India Fund	7.74%	17.92%	22.86%	35.75%	45.94%	155.58%
Quantum India E.S.G Equity Fund	3.90%	11.58%	12.68%	16.83%	15.72%	80.57%
ESG funds	**4%**	**13%**	**15%**	**17%**	**20%**	**72%**

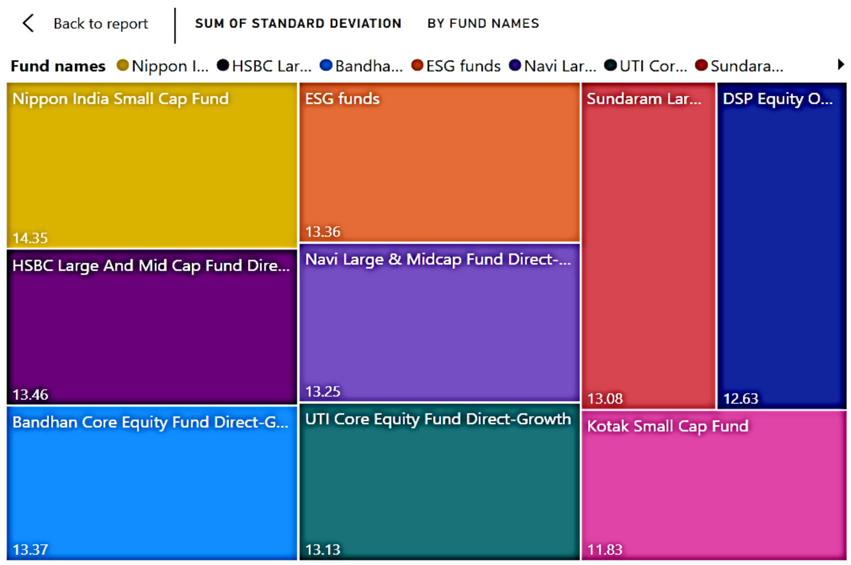
OTHER MUTUAL FUNDS + AVG OF ESG MUTUAL FUNDS

ESG Fund names	NAV Values	Sharpe ratio	Treynor ratio	Jension's alpha Standard Deviation	Standard Deviation	Beta
UTI Core Equity Fund Direct-Growth	12.48	1.57	0.22	2.44	13.13	0.95
Navi Large & Midcap Fund Direct-Growth	32.11	1.39	0.2	3.47	13.25	0.94
DSP Equity Opportunities Direct Plan-Growth	449.8	1.29	0.18	-1.96	12.63	0.91
Bandhan Core Equity Fund Direct-Growth	95.7	1.46	0.2	-0.07	13.37	0.97
Sundaram Large And Mid Cap Fund Direct-Growth	67.63	1.31	0.18	-2.13	13.08	0.95
HSBC Large And Mid Cap Fund Direct - Growth Sheet1 Chart1 Sheet2	19.15	1.27	0.18	-2.51	13.46	0.97
Nippon India Small Cap Fund	114.06	2.32	0.37	8.41	14.35	0.9

Kotak Small Cap Fund	189.65	2.51	0.42	10.21	11.83	0.7
ESG funds		**0.965**	**0.156**	**-0.948**	**13.356**	**0.878**

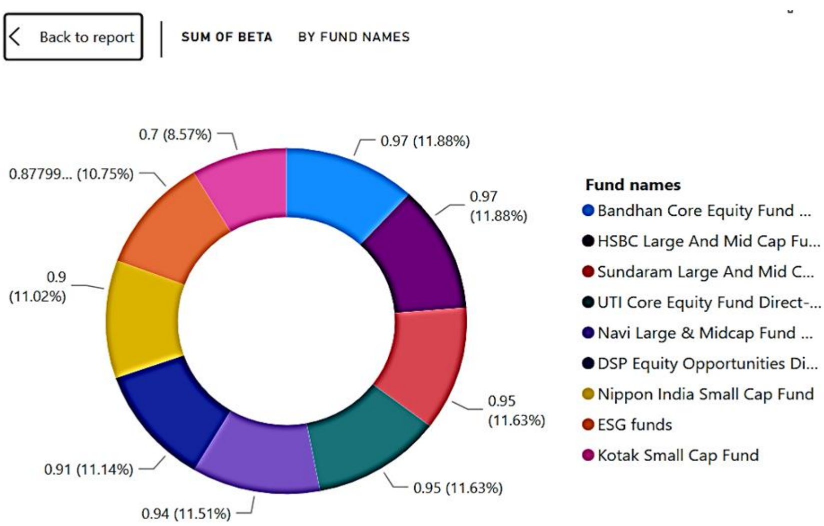
ESG Fund names	1 Month	3 Month	6 Month	1 Year	2 Year	3 Year
UTI Core Equity Fund Direct-Growth	6.52%	14.83%	17.79%	24.41%	29.10%	118.37%
Navi Large & Midcap Fund Direct-Growth	3.89%	13.97%	17.97%	22.28%	34.58%	116.54%
DSP Equity Opportunities Direct Plan-Growth	5.70%	13.89%	15.49%	22.24%	21.15%	97.83%
Bandhan Core Equity Fund Direct-Growth	6.04%	15.77%	17.34%	27.20%	32.72%	117.55%
Sundaram Large And Mid Cap Fund Direct-Growth	4.91%	13.45%	15.56%	20.06%	27.05%	99.41%
HSBC Large And Mid Cap Fund Direct - Growth Sheet1 Chart1 Sheet2	4.11%	13.74%	18.96%	21.48%	25.57%	100.31%
Nippon India Small Cap Fund	5.35%	20.06%	27.40%	36.29%	48.98%	218.00%
Kotak Small Cap Fund	3.93%	16.57%	19.65%	21.70%	27.73%	181.15%
ESG funds	**4%**	**13%**	**15%**	**17%**	**20%**	**72%**

Standard Deviation



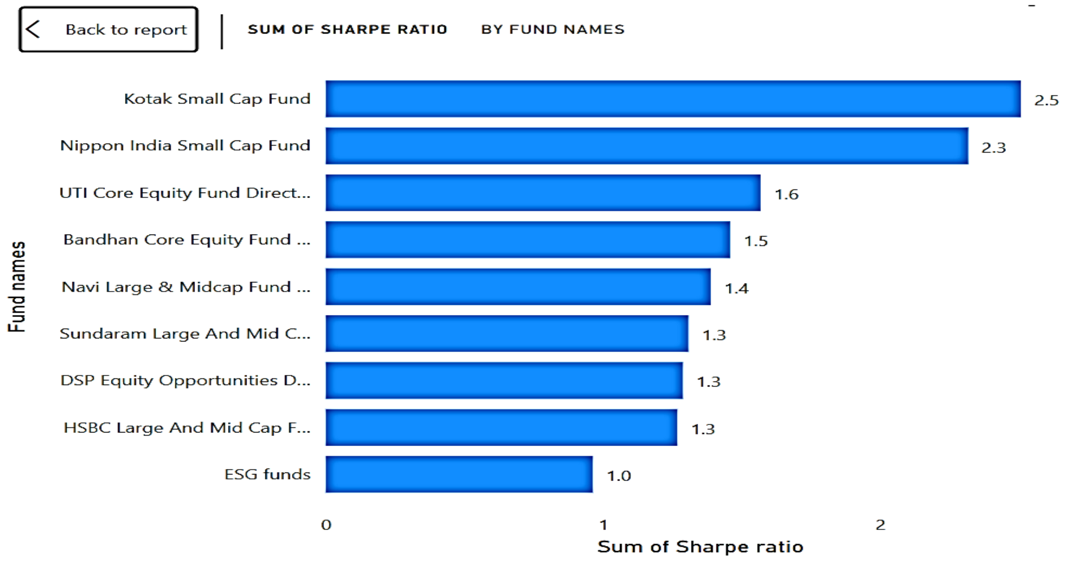
Standard deviation serves as a metric for assessing the volatility of a fund, indicating how much its returns are expected to deviate from its average annual returns. In comparison to other mutual funds, the Kotak Small Cap Fund exhibits relatively low volatility, measuring at 11.83. Conversely, the ESG Mutual Fund demonstrates a higher volatility of 13.36. Consequently, there is room for improvement in reducing the volatility of ESG mutual funds, signifying a need to mitigate the degree of fluctuation in returns.

Beta



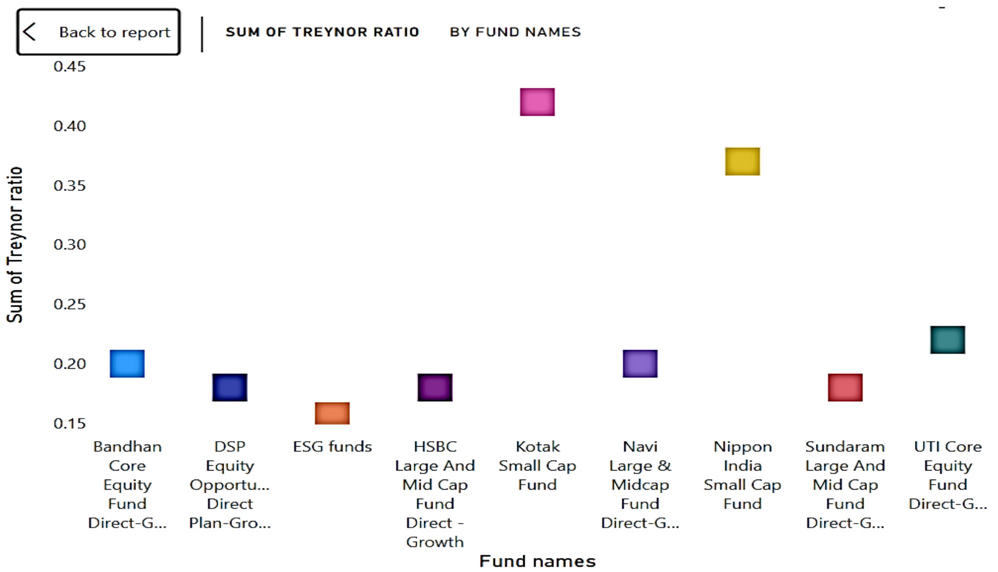
The beta of a mutual fund measures its volatility compared to its market benchmark. A beta exceeding 1 suggests that the fund is more volatile than its benchmark, while a beta below 1 indicates less volatility. In the case of the ESG mutual fund, its beta stands at 0.877, which may deter investors as it signifies lower volatility compared to the benchmark. Consequently, an increase in financial leverage heightens financial risk, leading to an uptick in a company's stock beta.

Sharpe Ratio



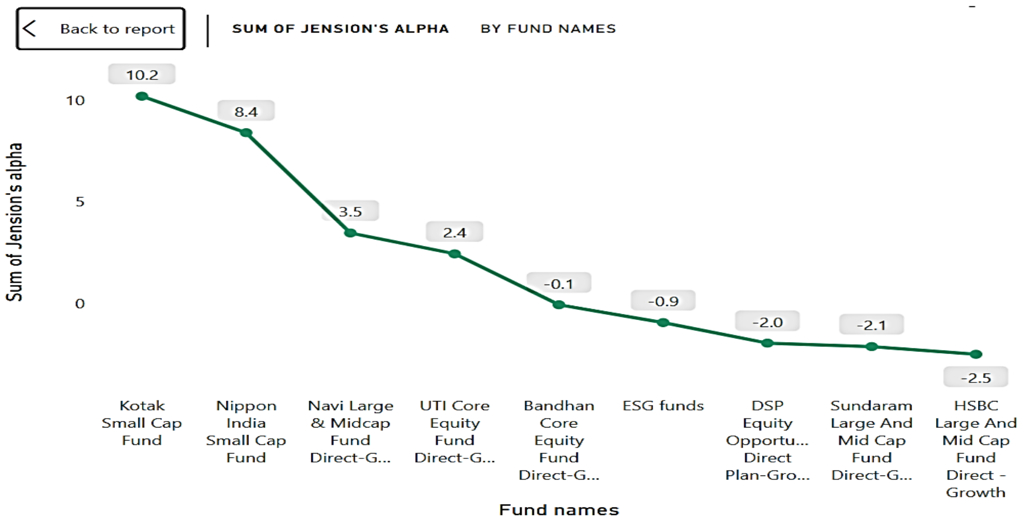
The Sharpe ratio serves as a tool for evaluating the performance of mutual funds or securities by providing insight into their risk-adjusted returns. A higher Sharpe ratio suggests a better return on investment relative to the level of risk undertaken. ESG mutual funds, compared to others, exhibit a relatively low Sharpe ratio of 1.0, indicating lower returns in proportion to the level of risk involved. To enhance returns and consequently elevate the Sharpe ratio, efforts should be directed towards increasing investment returns while managing risk effectively.

Treynor Ratio



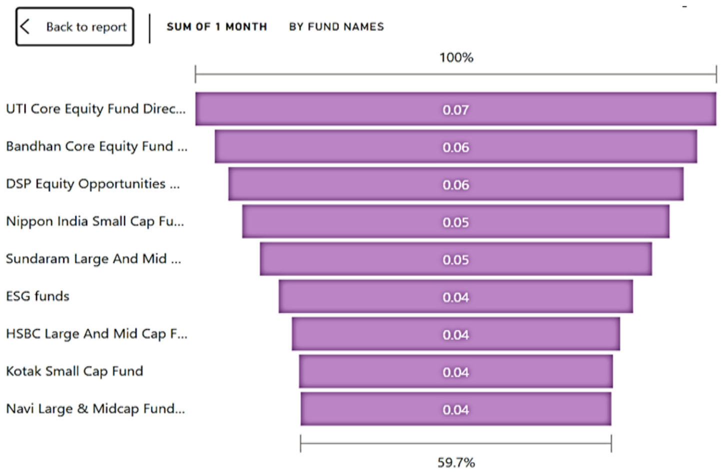
The Treynor ratio measures the return earned by an investment, such as mutual funds, relative to the amount of risk taken. A higher Treynor ratio indicates better performance compared to a lower one. ESG mutual funds exhibit a lower Treynor ratio of 0.16 compared to others, suggesting that they generate less return for the level of risk assumed. To improve market performance, ESG mutual funds should conduct a thorough risk-reward evaluation. Investors utilize this ratio to assess which portfolio offers greater returns per unit of risk.

Jension's Alpha



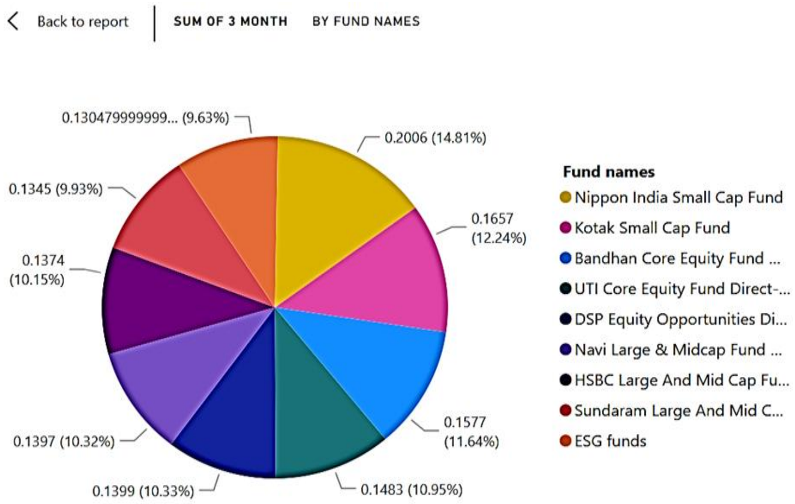
Jensen's alpha is a metric employed to assess the average return of a portfolio or investment, surpassing or falling short of what's predicted by the Capital Asset Pricing Model (CAPM). A positive alpha indicates that the mutual fund has outperformed the market significantly. However, the ESG mutual fund's Jensen's ratio stands at -0.9, reflecting a negative value. This underscores the necessity for enhancing risk-adjusted returns through improved mutual fund selection skills by investors or fund managers. By achieving a positive value, and implementing better portfolio management strategies, the fund can strive to outperform the market.

One Month Return



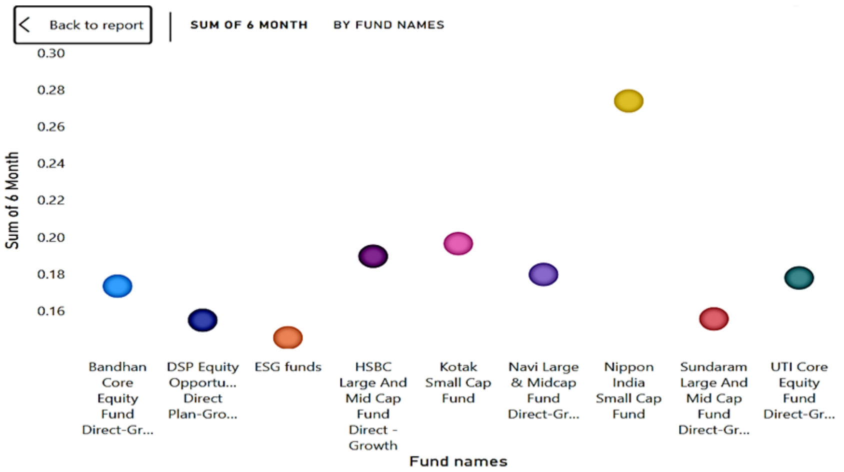
The monthly returns of the ESG mutual fund are either low or on par with other mutual funds. Various factors influence the returns of each mutual fund. Currently, the ESG mutual fund has a 1-month return of 0.04%, which could potentially increase with enhancements in factors such as beta, standard deviation, and other performance-improving methods.

Three Months Returns



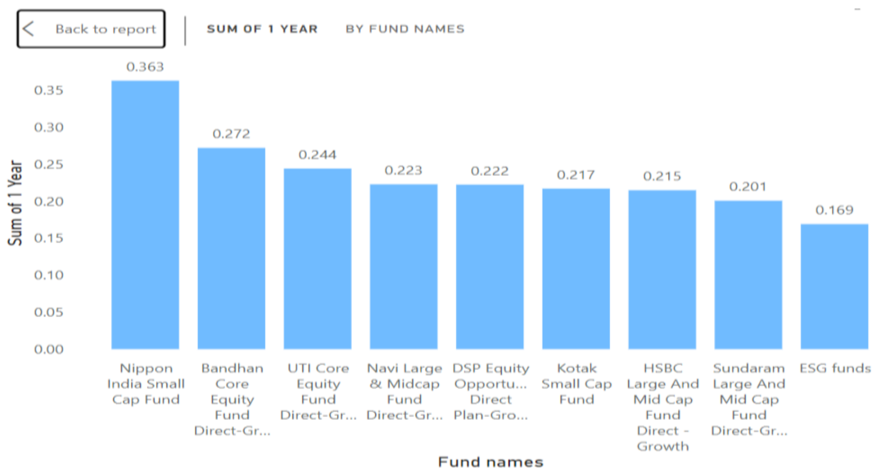
The ESG mutual fund's 3-month returns of 9.63% are lower compared to other mutual funds. Hence, optimizing profits for the ESG mutual fund entails diversifying the portfolio and conducting regular reviews of fund performance. By doing so, not only can the returns be augmented, but also foster better growth in the market.

Six Months Returns



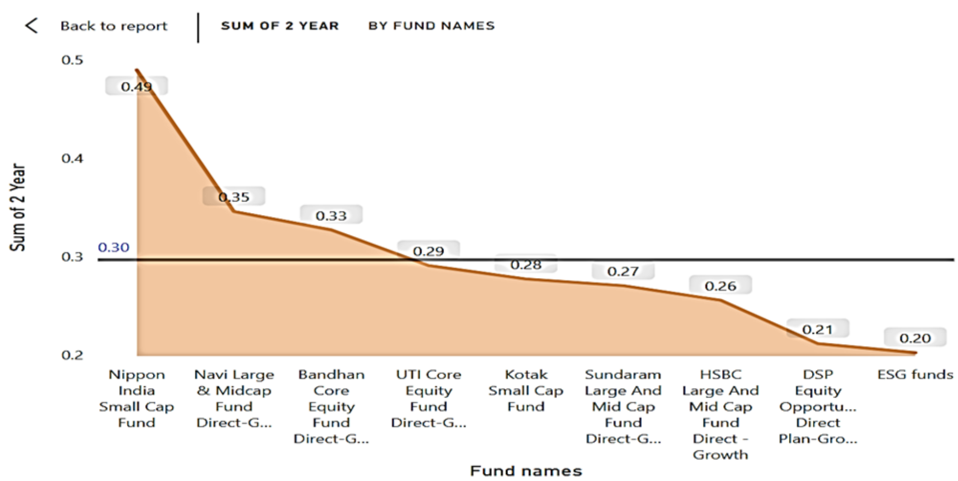
The ESG mutual fund's 6-month returns remain modest at 0.15%, albeit showing an improvement from the returns observed over 1 month and 3 months. This progressive trend suggests that the returns of ESG mutual funds are gradually increasing month by month, potentially indicating promising growth prospects in the future.

One Year Return



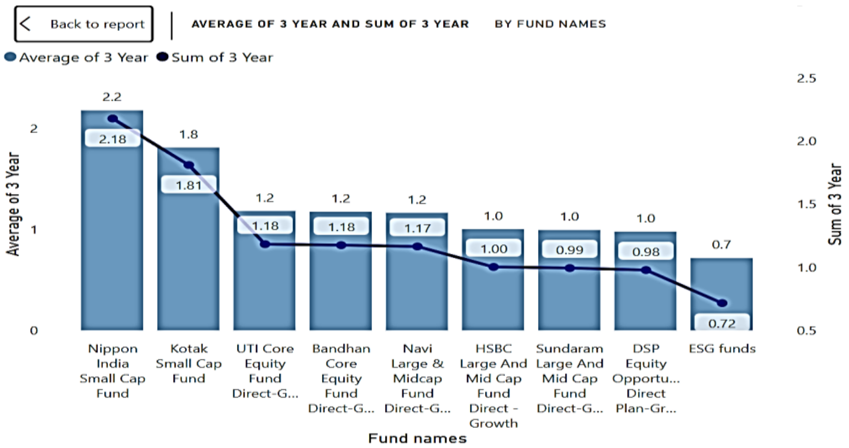
The ESG mutual fund's 1-year return stands at a lower rate of 0.169%, in contrast to other mutual funds. Notably, the Nippon India Small Cap Fund exhibits the highest returns among all others, with a notable 0.363% return. When considering all nine fund names, the sum of 1-year returns ranges from 0.17% to 0.36%, highlighting a diverse spectrum of performance across the funds.

Two Years Returns



The 2-year absolute returns of the ESG mutual funds average at 0.20%, which falls short in comparison to other mutual funds. However, this figure marks an improvement from the previous year's returns, which stood at 0.169.

Three Years Returns



The average 3-year annual absolute returns of ESG mutual funds amount to 0.72%, which are relatively lower compared to the listed above other mutual funds. Nonetheless, there's a consistent upward trend in the returns of ESG mutual funds over the years, indicating potential growth opportunities in the market.

BENEFITS AND DRAWBACK OF ESG MUTUAL FUNDS IN NEW INVESTORS

Benefits

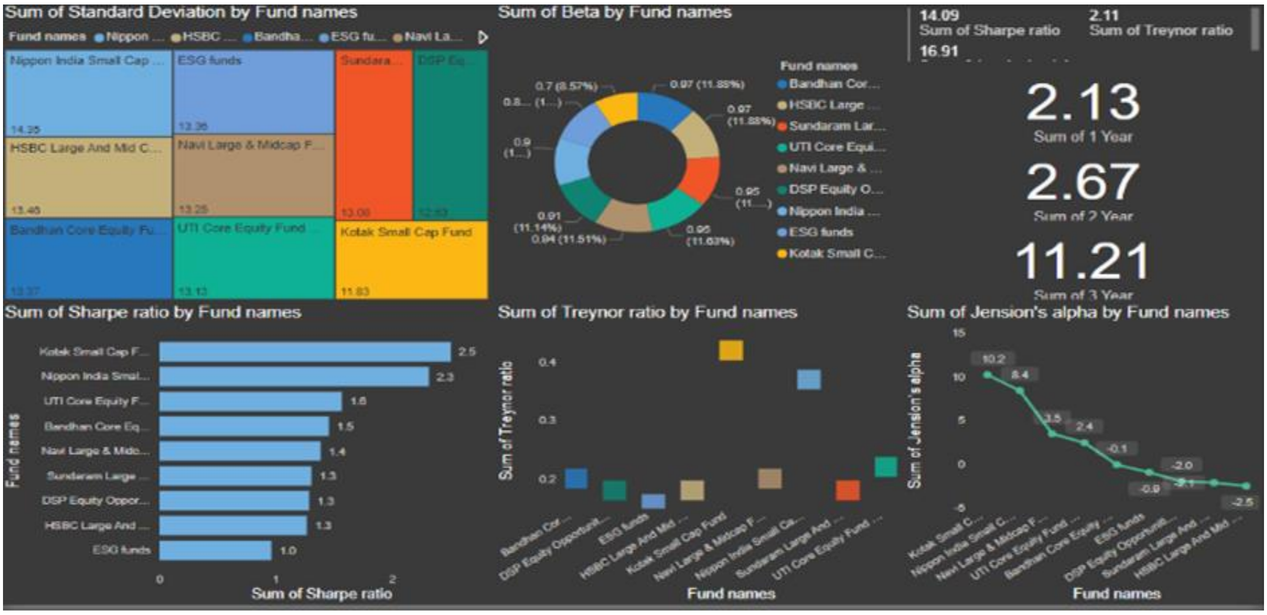
1. *Alignment with Values*: ESG mutual funds allow investors to align their investments with their personal values by supporting companies that prioritize environmental, social, and governance factors.
2. *Long-term Sustainability*: Investing in ESG mutual funds can promote sustainable practices within corporations, potentially leading to long-term financial stability and reduced risk.
3. *Risk Management*: ESG criteria help mitigate certain risks, such as reputational, regulatory, and environmental risks, which can lead to more resilient portfolios over time.
4. *Market Performance*: Studies have shown that companies with strong ESG practices tend to outperform their peers over the long term, potentially resulting in attractive returns for investors.
5. *Regulatory Tailwinds*: With increasing regulatory focus on sustainability and responsible investing, ESG mutual funds may benefit from favorable policy environments.

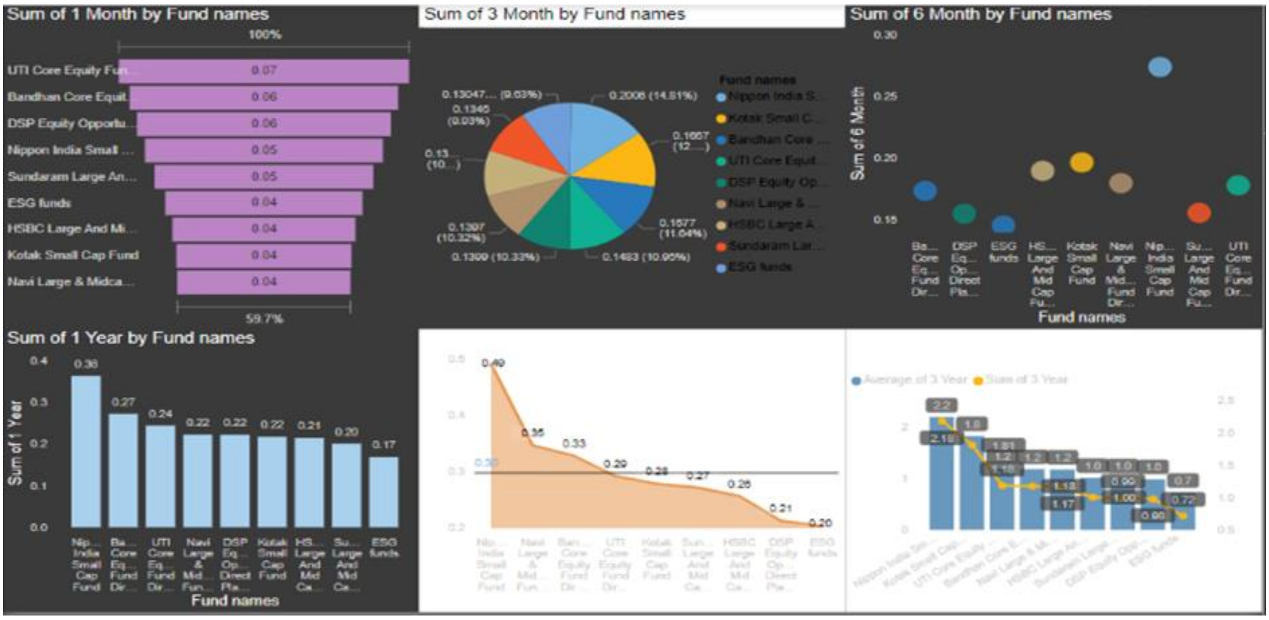
Drawbacks

1. *Limited Investment Options*: The universe of ESG-compliant companies may be smaller compared to traditional investment options, potentially limiting diversification opportunities.
2. *Performance Variability*: ESG mutual funds' performance can be subject to volatility, as they may prioritize sustainability metrics over traditional financial indicators.
3. *Complexity in Evaluation*: Assessing ESG criteria and determining the impact of these factors on investment performance may require additional research and expertise, posing a challenge for new investors.
4. *Higher Fees*: ESG mutual funds may have higher expense ratios compared to traditional funds, reflecting the additional costs associated with ESG screening and research.
5. *Subjectivity in ESG Ratings*: ESG ratings can vary across providers and may be subjective, leading to potential discrepancies in the evaluation of companies' sustainability practices.

Overall, while ESG mutual funds offer potential benefits for new investors seeking to align their investments with their values and promote sustainable practices, it's essential for investors to conduct thorough research and consider the potential drawbacks before making investment decisions.

FINDINGS :





Bandhan Core Equity Fund Direct-Growth and HSBC Large and Mid-Cap Fund Direct - Growth share the highest Sum of Beta, both recording at 0.97, closely followed by UTI Core Equity Fund Direct-Growth. On the contrary, Kotak Small Cap Fund demonstrates the lowest Sum of Beta at 0.70.

Kotak Small Cap Fund boasts the highest Sum of Sharpe ratio at 2.51, surpassing ESG funds by 160.10%, which have the lowest Sum of Sharpe ratio at 0.97. Remarkably, Kotak Small Cap Fund contributes to 17.82% of the Sum of Sharpe ratio across all 9 Fund names, which range from 0.97 to 2.51.

Similarly, Kotak Small Cap Fund leads with the highest Sum of Jensen's alpha at 10.21, towering over HSBC Large and Mid-Cap Fund Direct - Growth by 506.77%, which holds the lowest Sum of Jensen's alpha at -2.51. Kotak Small Cap Fund's contribution to the Sum of Jensen's alpha is notable, accounting for 31.76%. Across all 9 Fund names, the Sum of Jensen's alpha varies from -2.51 to 10.21.

Nippon India Small Cap Fund holds a significant portion of the Sum of 3 Month, accounting for 14.81%.

Nippon India Small Cap Fund outshines others with the highest Sum of 1 Year at 0.36, outperforming ESG funds by 114.73%, which have the lowest Sum of 1 Year at 0.17. Nippon India Small Cap Fund's contribution to the Sum of 1 Year stands at 17.07%. The range of Sum of 1 Year across all 9 Fund names is 0.17 to 0.36.

Moreover, Nippon India Small Cap Fund tops the chart with the highest Sum of 2 Year at 0.49, surpassing ESG funds by 141.98%, which have the lowest Sum of 2 Year at 0.20. Nippon India Small Cap Fund contributes 18.34% to the Sum of 2 Year, while the range across all 9 Fund names is from 0.20 to 0.49.

Nippon India Small Cap Fund maintains its lead with the highest Average of 3 Year at 2.18, surpassing ESG funds by 204.39%, which have the lowest Average of 3 Year at 0.72. Notably, the Average of 3 Year and total Sum of 3 Year show a positive correlation. Nippon India Small Cap Fund's contribution to the Sum of 3 Year is significant, accounting for 19.45%.

SUGGESTIONS :

When performance is dissected across various risk factors and investment sectors, it becomes apparent that ESG does not inherently yield a positive risk premium; instead, it tends to exhibit a negative risk premium. However, ESG strategies can leverage ESG momentum to generate profitable returns under certain conditions.

The rationale behind the superior performance of equities with high ESG ratings lies in the tendency of stock markets to underestimate the significance of ESG data. Consequently, stocks associated with companies making a positive ESG impact may be undervalued, thereby potentially leading to outperformance.

CONCLUSION :

The global demand for investment funds emphasizing environmental, social, and governance (ESG) factors is on a rapid rise. Recent forecasts indicate that ESG assets could soar to $53 trillion by 2025, accounting for more than one-third of the total estimated assets under management, pegged at $140.5 trillion.

Governments and environmentally-conscious younger investors are displaying a marked preference for ESG investments due to their potential for sustainable growth and their ability to address non-financial risks faced by businesses.

Despite the availability of ESG-themed mutual fund options in India, they have yet to gain widespread traction among investors. However, given the pressing environmental challenges we face today, it is anticipated that government bodies, regulators, and institutional investors will increasingly embrace ESG-focused funds to promote the development of long-term sustainable enterprises in the future.

REFERENCES :

1. Wimmer, M. (2013). ESG-persistence in Socially Responsible Mutual Funds. Journal of Management and Sustainability, 1-6.
2. Gunnar Friede, T. B. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. Journal of Sustainable Finance & Investment, 2-19.
3. Trivedi, C. H. (2015). Does ESG investment enhance investment returns . Published by iRepository, 1-17.
4. PASQUINI-DESCOMPS, J.-M. S. (2015). ESG Impact on Market Performance of Firms: International Evidence. Management international International Management Gestiòn Internacional, 1-25.
5. N. C. Ashwin Kumar, C. S. (2016). ESG factors and risk-adjusted performance: a new quantitative model. Journal of Sustainable Finance & Investment, 1-9.
6. Nandita Das, S. C. (2018). ESG Ratings and the Performance of Socially Responsible Mutual Funds: A Panel Study. Journal of Finance Issues Spring , 1-7.
7. Ciotti, V. V. (2020). Esg or Not Esg? A Benchmarking Analysis . International Journal of Business and Management, 1-10.
8. Jie Cao, S. T. (2020). ESG PREFERENCE, INSTITUTIONAL TRADING, AND STOCK RETURN PATTERNS. NATIONAL BUREAU OF ECONOMIC RESEARCH, 1-53.
9. Quinn Curtis, J. F. (2021). DO ESG MUTUAL FUNDS DELIVER ON THEIR PROMISES? Michigan law review, 2-59.
10. Stoklasa, F. W. (2021). Possible drivers of high performance of European mutual ESG funds - an fsQCA view on sustainable investing. KNOWCON-NSAIS workshop on Business Analytics, 73-85.
11. Jang, S. R. (2021). The Impact of ESG Management on Investment Decision: Institutional Investors' Perceptions of Country-Specific ESG Criteria. International Journal of Financial Studies, 1-27.
12. Couvert, M. (2022). What is the impact of mutual funds' ESG preferences on portfolio firms? Norwegian Finance Initiative (NFI) Research Program, 1-57.
13. Gupta, S. (2022). Growth and Performance Measurement of ESG-themed Mutual Funds in India: An Empirical Investigation. Orissa Journal of Commerce, 1-18.
14. Kumar, E. T. (2022). Incorporating ESG in Decision Making for Responsible and Sustainable Investments using Machine Learning. Proceedings of the International Conference on Electronics and Renewable Systems, 1-7.
15. Sarkar, S. (2022). Performance Evaluation of ESG Funds in India – A Study. The Management Accountant Journal, 2-9.
16. Torsten Ehlers, U. E. (2022). Deconstructing ESG Scores: How to Invest with Your own Criteria. Swiss Finance Institute Research Paper Series, 2-48.
17. Shangchen Li, H. R. (2023). ESG SPILLOVERS. NATIONAL BUREAU OF ECONOMIC RESEARCH, 2-64.
18. Dr. Shuchita Singh, D. S. (2023). Performance Evaluation of ESG Mutual Funds in India. Journal of Survey in Fisheries Sciences, 1-9.
19. Rohilla, M. A. (2023). EVALUATION OF PERFORMANCE OF SELECTED INDIAN ESG FUNDS. An International, Peer Reviewed, Open Access & Multidisciplinary Journal, 1-9.
20. Paul, A. D. (2023). Performance Analysis of Select ESG Funds in India. Management Journal for Advanced Research, 1-7