Performance of ESG Schemes and Flexicap Mutual Fund Schemes in India: A Comparative Analysis

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This paper investigates the connection between traditional equity-based mutual funds and sustainable equity-based mutual funds by comparing them with reference to their returns, risk, risk adjusted returns and other parameters. The study draws an analogy between equity-based ESG mutual fund schemes and traditional flexicap schemes; and evaluates the performance of ESG mutual fund schemes in India. It found that the annualized return of sustainable funds has surpassed that of traditional flexicap funds. Similar results are displayed when risk adjusted return is taken into account, showing that the performance of sustainable ESG funds is generally superior to that of traditional mutual funds. The study's findings and conclusions have important implications for investors. It also adds to the body of knowledge on sustainable investment for academics and recommends that future research on the subject take into account ESG performance analysis when evaluating sustainable investments

Introduction

Mutual funds have emerged as the preferred long-term investment vehicle among investors in the last ten years. Many investors with similar financial objectives pool their savings into mutual funds. One of the most popular investing options for risk-averse individuals is a mutual fund, which provides an inexpensive way to participate in a professionally managed diversified portfolio. With a focus on increasing domestic savings and investment through capital markets, there is a much greater need and opportunity for mutual fund operations.

A new financial paradigm focused on sustainable development is expressed by the field of sustainable finance, which includes sustainable economic systems. An investment process that takes into consideration and promotes social and environmental factors is referred to as sustainable finance (KPMG). It aims to ensure that investments contribute to sustainable development, while mitigating risks associated with climate change, social inequality and

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unsustainable business practices. Sustainable finance comes in many shapes and forms. The most common financial instruments are debt and equity, despite the wide range of financing options available. The outcome of the financial sector's adaptation to the difficulties of sustainable development is known as sustainable financial system (Pisano *et al.*, 2012). According to the literature, institutionally sustainable policies and comprehensive system analyses that consider behavioral aspects in addition to Environmental, social and governance factors are what are meant to be understood by sustainable finance (Soppe, 2009; and Schoenmaker, 2017).

Concerns about how business practices affect society, environment and (corporate) governance have increased over the past few decades, which has led to a paradigm change in the world of business. ESG has evolved as a revolutionary paradigm to assess a company's performance beyond purely financial measurements as the globe struggles with urgent issues like climate change, social inequality and ethical misbehavior. To enhance longer-term investments into sustainable economic activities and projects, sustainable finance is commonly defined as taking ESG concerns into account when making investment decisions.

Thus, it is implied that sustainable finance is a broader phenomenon that has many perspectives to it, and the current study addresses ESG as part of sustainable finance. ESG expansion has been motivated by investors' desire to impact society and the environment and their financial performance. This development is a reaction to a more widespread pattern that saw several nations mobilize their efforts to support a global rise. Currently, behavioral finance is playing an active role in attempting to integrate these ideas into the investing process. ESG rating, serves as the foundation for ESG investing. Investing in ESG has advanced recently in response to institutional and retail investors' demands and those of some public sector authorities who wish to more effectively incorporate long-term economic risks and possibilities into their financial choices to produce long-term worth. The areas of ESG factors involve conflicts and negative risks that reduce equity value and raise credit chance over time (Blackburn *et al.*,1994). As a result, it seeks to integrate superior risk management with enhanced portfolio returns, and a technique for investing that takes investor and beneficiary values into account. The community views ESG as an investment strategy that aims to incorporate more and more reliable data regarding the subject (Hong and Kacperczyk, 2009).

ESG principle was first presented in 2004; since then, it has been actively used in industrialized nations, including America, Europe and Australia. Several accomplishments, such as the creation of ESG assessment system, ESG disclosure rules and ESG index system support the growth and maturity of the ESG components and ESG as a whole. Thes e elements are continuously creating new sustainable growth patterns.

Mutual funds are a convenient way to get started with ESG investing. Are there mutual fund schemes in India's emerging market that allow investors to invest with simplicity and convenience for financial and societal benefits? The present study investigates various mutual fund scheme under the theme of ESG.

Flexicap has been taken into consideration so that there would be a fair comparison between the schemes. While Flexicap has different asset categories like gold and debt in their portfolio, most hold more than 80% in large, mid and small-cap.

Literature Review

Sustainable development is fueled by finance. Along with incorporating broader questions about the long-term economic viability of the organizations receiving funding and the stability and role of the entire financial system in which they function, sustainable finance also takes 'climate', 'green' and 'social finance' into account (Ryszawska, 2016). To characterize the shift in sustainable finance 'Multilevel- Perspective' concept was used by Urban and Wójcik (2019).

Green municipal bonds provide the best opportunity for a detailed empirical study of how pricing and ownership differ from those of ordinary bonds. Green bonds are issued at a small premium of several basis points over similar ordinary bonds, except when they are issued simultaneously with ordinary bonds from the same issuer; in that situation, a premium emerges overtime in the secondary market. Green bonds, especially small or nearly riskless ones, are also more closely held than ordinary bonds. These facts are consistent with a simple framework that incorporates assets with nonpecuniary utility (Baker *et al.*, 2022). The most active funds underperform passive benchmarks during the crisis. Funds with high sustainability ratings perform well, as do funds with high star ratings. Fund outflows surpass pre-crisis trends, but not dramatically. Investors favor funds that apply exclusion criteria and funds with high sustainability ratings, especially environmental ones. Investors remain focused on sustainability during a major crisis, suggesting they view sustainability as a necessity rather than a luxury (Pastor and Vorsatz, 2020). ESG rating agencies have integrated new criteria into their assessment models to measure corporate performance more accurately and robustly to respond to new global challenges. ESG rating agencies do not fully integrate sustainability principles into the corporate sustainability assessment process, suggesting they view sustainability as a luxury rather than a necessity (Escrig-Olmedo *et al.*, 2019).

The 2008 Global Financial Crisis led to a rapid development of the literature on Socially Responsible Investing. Research has looked at how ESG performance affects risk characteristics and financial performance on a global scale (Brammer *et al.*, 2006; Stateman and Glushkov, 2009; and Humphrey *et al.*, 2012). The findings of these investigations demonstrate that on comparing ESG-integrated strategies to non-ESG-integrated strategies, no difference is found in risk characteristics or reduction in investment performance. The research on the factors that influence ESG performance is very dispersed. Multiple independent research contributions have demonstrated that a multitude of factors impact ESG performance. Firm size (Drempetic *et al.*, 2020), auditing (Del Giudice and Rigamonti, 2020), strategy decisions (Galbreath, 2013), board composition (Birindelli *et al.*, 2018), stock exchange innovation (Bizoumi *et al.*, 2019), investors (Kölbel *et al.*, 2020) and whether the company is in an industry that is more sensitive to ESG issues (Garcia *et al.*, 2017) are a few examples of the factors that affect ESG outcomes.

The factors that influence mutual fund investments can be broadly divided into two categories: investors and mutual funds. The majority of research on mutual funds has focused on analyzing how different fund-related characteristics affect the flow of capital or investment in mutual funds. The performance of mutual funds (Bu and Lacey, 2008), advertising spending and fund

size (Cashman *et al.*, 2014), fund age (Chavlier and Ellison, 1997), redemption fee and load/ no load (Cashman *et al.*, 2014) have all been found to have an impact on investors' investments in mutual funds. The majority of research on investors has looked at the socioeconomic traits, perspectives, and knowledge of investors in mutual funds. Barber and Odean (2013) observed that the social environments in which individual investors operate have an impact on their decisions and choices. The investor's choice of financial services and their perception of the risk associated with those services are influenced by their characteristics, including age, education level, investment experience, and level of financial literacy (Falk and Matlulich, 1976; and Mitchell and Greatorex, 1993). Jensen's measure is the difference in how much a person returns vs. the overall market. It is commonly referred to as alpha; so, when a manager outperforms the market concurrent to risk, they have delivered alpha to their clients. The measure accounts for the risk-free rate of return for the period. A risk-adjusted indicator of portfolio performance, known as "Jensen's alpha", was developed by Jensen (1968) and provides an estimate of the contribution of a manager's forecasting prowess to fund returns.

In a modern portfolio hypothesis setting, Sharpe (1966) explained that there is a direct relationship between the expected return of a proficient portfolio and the risk associated with it, known as unsystematic risk. By combining various concepts, he developed a Sharpe index. To determine which asset has the best reward to volatility, he attempted to rate the presentation using the ideal portfolio, which included a riskier portfolio and a risk-free asset. Ineffective management is the reason behind the specific security associated with the unsystematic hazard. The Sharpe-Ratio technique was proposed by William Sharpe as a means of measuring the performance of mutual funds. The reward-to-volatility ratio or Treynor ratio is a performance metric that shows how much excess return a portfolio generated for each unit of risk it took on. In this context, the excess return is defined as the return that was obtained above the return that could have been obtained from an investment devoid of risk. According to Treynor (1965), it makes more sense to estimate a portfolio's return on its systematic risk. In his endeavor, he graphically evaluated the mutual fund display on a quality line. A fund becomes riskier the more efficient risk or unpredictability it possesses. He developed the "Treynor Index", also known as the "Single-Line Index".

The other kind of mutual fund that is not limited to investing in businesses with a set market capitalization is known as a flexi-cap fund. The prospectus for the fund will specify this kind of structure. According to *The Economic Times* (2023), financial planners feel that flexi cap funds could be a good place to start, given the number of new investors joining mutual funds at record highs with broad indices. These programs allow for flexibility in investing across large, mid, and small-cap companies of any market capitalization. The fund manager may have more options for investments and diversification with a flexi-cap fund.

Investing in sustainable funds is less risky than traditional funds, according to Yue *et al.* (2020). According to Naffa *et al.* (2020), sustainable funds continuously outperformed the market on a majority of the metrics during the study period.

Research Questions and Objective

Extremely scanty work has been done in the area of ESG mutual funds, specially in the context of India. The present study is motivated by two research questions:

- Are equity-based ESG mutual funds performing better than traditional equity funds? Second, how are ESG mutual funds performing in India?

The research questions lead to the two research objectives:

- To draw an analogy between equity-based ESG mutual fund schemes and traditional Flexicap schemes; and
- To evaluate the performance of ESG mutual fund schemes in India.

Methodology

The present study is empirical in nature. Secondary data have been assembled from various sources for assessment and comparison. Primarily, data were collected from individual mutual funds' websites, other websites like Valueresearch and Moneycontrol, and relevant literature on the subject. There are eight active ESG funds in India, and the present study takes seven schemes into consideration due to availability of data (Table 1). The ESG mutual funds used in

Table 1: Details of the Schemes Along with Their Inception Date

Asset Management Company	Schemes	Inception Date
ICICI Prudential Mutual Fund	ICICI Prudential ESG Fund	October 9, 2020
	ICICI Prudential Flexicap Fund	July 16, 2021
Kotak Mutual Fund	Kotak ESG Exclusionary Strategy Fund	December 7, 2020
	Kotak Flexicap Opportunities Fund	September 11, 2009
SBI Mutual Fund	SBI Magnum Equity ESG Fund	January 1, 1991
	SBI Magnum Equity Flexicap Fund	September 29, 2005
Quant Mutual Fund	Quant ESG Equity Fund	November 5, 2020
	Quant Flexicap Equity Fund	October 15, 2008
Axis Mutual Fund	Axis ESG Equity Fund	February 12, 2020
	Axis Flexicap Equity Fund	November 20, 2017
Aditya Birla Sunlife Mutual Fund	Aditya Birla Sunlife ESG Fund	December 24, 2020
	Aditya Birla Sunlife Flexicap Fund	August 27, 1998
Invesco India Mutual Fund	Invesco India Equity ESG Fund	March 18, 2021
	Invesco India Flexi Cap Fund	February 14, 2022

Source: https://valuereasearchonline.com

this study are ICICI Prudential ESG Fund, Kotak ESG Opportunities Fund, SBI Magnum Equity ESG Fund, Quant ESG Equity Fund, Axis ESG Equity Fund, Aditya Birla Sunlife ESG Fund and Quantum India ESG Equity Fund. Most of the Asset Management Companies (AMCs) have Flexicap schemes, but considering all will be vague and not precise. For the respective ESG schemes, their Flexicap schemes have been considered as their counterpart for evaluation. Thus, the Flexicap mutual funds included in the study are Kotak Flexicap Opportunities Fund, SBI Magnum Equity Flexicap Fund, Quant Flexicap Equity Fund, Axis Flexicap Equity Fund, and Aditya Birla Sunlife Flexicap Fund.

Included are return and risk, with a focus on beta (which quantifies unsystematic risk) and standard deviation (which quantifies both systematic and unsystematic risk). There are also risk-adjusted performance measures in this study. Treynor Ratio, Jensen Alpha and Sharpe Index are the three risk-adjusted returns that make up the majority of it. The cost ratio is another crucial factor to consider. Investors should consider the mutual fund's expenses when making their decision. A review of the systems' functionality was conducted between December 2023 and January 2024. The time frame studied spanned the end of the holiday season and the commencement of the New Year, which has been identified for their seasonal investment patterns. This time frame enables analysis of how these trends affect mutual fund performance. Moreover, reviewing the year end performance and commencement of new calendar year helps to recognize investor's long-term approaches and confidence.

Results and Discussion

Performance Based on AUM and Expense Ratio

Evidence about ESG schemes and Flexicap schemes that are based on equity is analyzed based on expense ratio and asset under management (AUM). Although it hurts investors' wallets, comparing scheme costs is a common practice among investors; similarly, the mutual fund schemes' AUM size. Within a mutual fund, the total market value of the assets is called AUM. A mutual fund's inclusive capital value is indicated by what is also called fund size. It is obvious that investors look at past performance to determine the efficacy of the fund manager overall; AUM is a key factor in this evaluation. Similar to how the expense ratio will typically decrease with increasing AUM. Comparisons between the AUM expense ratio of both sustainable and traditional funds are shown in Tables 2 and 3, respectively.

Table 2 clearly shows that Kotak Flexicap Opportunities Fund has the largest share of AUM (₹41,371.57 cr), followed by SBI Magnum Equity Flexicap Fund (₹18,643.59 cr) and Aditya Birla Sunlife Flexicap Fund (₹18,132.74 cr) and . The ICICI Prudential Flexicap Fund has an impressive AUM of 12,962.19. A majority of Flexicap investments are quite old, and the fund corpus has increased over time, which explains why the AUM is so high. With a date of 1998, Aditya Birla Flexicap is the oldest, followed by SBI Flexicap with a date of 2005. It is fascinating to note that despite having a sizable AUM, Kotak Flexicap has a relatively modest founding date. All sustainable ESG funds are relatively new, having been established primarily in 2020. Therefore, it is essential that AUM shares in this instance pertain more to traditional funds than to sustainable funds for investors to ascertain the rate of return on investment in mutual

Table 2: Comparative Analysis of ESG Schemes and Flexicap Schemes Based on AUM

Asset Management Company	Schemes	AUM (₹ in cr)
ICICI Prudential Mutual Fund	ICICI Prudential ESG Fund	1,326.68
	ICICI Prudential Flexicap Fund	12,962.19
Kotak Mutual Fund	Kotak ESG Exclusionary Strategy Fund	988.11
	Kotak Flexicap Opportunities Fund	41,371.57
SBI Mutual Fund	SBI Magnum Equity ESG Fund	5,199.51
	SBI Magnum Equity Flexicap Fund	18,643.59
Quant Mutual Fund	Quant ESG Equity Fund	191.83
	Quant Flexicap Equity Fund	2,457.78
Axis Mutual Fund	Axis ESG Equity Fund	1,397.92
	Axis Flexicap Equity Fund	11,119.64
Aditya Birla Sunlife Mutual Fund	Aditya Birla Sunlife ESG Fund	707.67
	Aditya Birla Sunlife Flexicap Fund	18,132.74
Invesco India Mutual Fund	Invesco India Equity ESG Fund	562.71
	Invesco India Flexi Cap Fund	1,314.64

Source: Data Based on https://valuereasearchonline.com

Table 3: Comparative Analysis of ESG Schemes and Flexicap Schemes Based on Expense Ratio

Asset Management Company	Schemes	Expense Ratio
ICICI Prudential Mutual Fund	ICICI Prudential ESG Fund	0.68
	ICICI Prudential Flexicap Fund	0.09
Kotak Mutual Fund	Kotak ESG Exclusionary Strategy Fund	0.71
	Kotak Flexicap Opportunities Fund	0.65
SBI Mutual Fund	SBI Magnum Equity ESG Fund	1.31
	SBI Magnum Equity Flexicap Fund	0.86
Quant Mutual Fund	Quant ESG Equity Fund	0.77
	Quant Flexicap Equity Fund	0.77
Axis Mutual Fund	Axis ESG Equity Fund	1.25
	Axis Flexicap Equity Fund	0.73
Aditya Birla Sunlife Mutual Fund	Aditya Birla Sunlife ESG Fund	0.92
	Aditya Birla Sunlife Flexicap Fund	0.89
Invesco India Mutual Fund	Invesco India Equity ESG Fund	2.39
	Invesco India Flexi Cap Fund	0.65

Source: Data Based on https://valuereasearchonline.com

funds; an asset management company's overall valuation is crucial for determining its expense ratio. On the other hand, a low expense ratio means that investors are getting most out of their investment by paying less for it overall. Interestingly, when compared to conventional Flexicaps funds, all ESG funds have higher expense ratios. One explanation could be that because AUM of Flexicaps is significantly higher than that of sustainable funds, there may be a correspondingly higher operational cost. It might not hold in every situation, though. With an expense ratio of 2.39, Invesco India Equity ESG Fund is the most expensive, followed by SBI Magnum Equity ESG Fund (1.31) and Axis ESG Equity Fund (1.25). With the lowest expense ratio of 0.09 ICICI Prudential Flexicap Fund is the most efficient fund manager. Both Quant's ESG and Flexicap showed an identical 0. 77 expense ratio.

Performance Based on Annualized Return

To evaluate the performance of these seven sustainable ESG equity-based schemes with traditional mutual funds, an annualized return shall be used during the study. The fact that it enables investors to evaluate the returns objectively over a given period is one reason why annualized returns should be taken into consideration. Returns since inception have been considered. Table 4 shows the comparative analysis of seven different Asset Management Company's Sustainable ESG schemes and its peer Traditional Flexicap. It can be found that out of seven Mutual funds, three ESG schemes, namely, Quant ESG Equity Fund, Axis ESG Equity Funds and Invesco India Equity ESG, have outperformed their peer Flexicap funds. However,

Table 4: Comparative Analysis of ESG Schemes and Flexicap Schemes Based on Annualized Return

Asset Management Company	Schemes	Return (%)
ICICI Prudential Mutual Fund	ICICI Prudential ESG Fund	18.90
	ICICI Prudential Flexicap Fund	18.93
Kotak Mutual Fund	Kotak ESG Exclusionary Strategy Fund	14.80
	Kotak Flexicap Opportunities Fund	16.98
SBI Mutual Fund	SBI Magnum Equity ESG Fund	14.72
	SBI Magnum Equity Flexicap Fund	16.73
Quant Mutual Fund	Quant ESG Equity Fund	41.76
	Quant Flexicap Equity Fund	20.48
Axis Mutual Fund	Axis ESG Equity Fund	18.32
	Axis Flexicap Equity Fund	14.86
Aditya Birla Sunlife Mutual Fund	Aditya Birla Sunlife ESG Fund	15.13
	Aditya Birla Sunlife Flexicap Fund	17.12
Invesco India Mutual Fund	Invesco India Equity ESG Fund	26.89
	Invesco India Flexi Cap Fund	20.25

Source: Data Based on Moneycontrol.com

ICICI ESG and Flexicap funds have provided more or less the same return (18.90% and 18.93% respectively). Quant ESG Equity has given the maximum annualized return of 41.76%. The results reveal that Kotak ESG Exclusionary Strategy Fund and SBI Magnum Equity ESG Fund, among all the categories, have underperformed and delivered the lowest return of 14% approximately. This becomes even more attractive when comparing the performance of ESG funds with its peer Flexicap categories. Looking at these numbers might convince investors that they should invest in this category. Nonetheless, ESG funds, in India are thematic funds, and like other thematic funds, they can also be risky. So, the next section considers risk-adjusted return.

Performance Based on Risk-Adjusted Returns

This section addresses various returns following risk adjustment. As we compare the performance of sustainable ESG schemes with traditional Flexicaps, it is important to contemplate the level of risk assumed to achieve these outcomes when evaluating the returns on one's portfolio by adjusting the risk-adjusted return or comparing the performance of investment. According to this theory, "the risk premium is the reward for taking on risk and represents the return earned above and beyond the risk-free rate" (Kevin, 2022). Three risk-adjusted performance measures—the Sharpe Index, Treynor Ratio and Jensen Alpha—are used to compare and rank the funds.

Sharpe Ratio

According to Kevin (2022), "it is the ratio of the reward or risk premium to the variability of return or risk as measured by the standard deviation of return". The performance measure was developed by Willaim Sharpe. Better performance is indicated by a higher ratio. The comparative analysis based on the Sharpe ratio among ESG schemes of particular AMC along with its counter Flexicap is represented in Table 5. Expression for the Sharpe Proportion equation is:

$$Share Ratio = \frac{R_p - R_f}{\sigma_p}$$

where

R_p = Return on portfolio;

R_f = Risk-free rate; and

σ_p = Standard deviation of the portfolio's excess return

In the Sharpe Ratio, Quant ESG Equity Fund ranked one scoring the highest ratio of 1.58, followed by Quant Flexicap Equity Mutual Fund (1.33). SBI Magnum Equity Flexicap Fund scoring 0.78 performed well, followed by SBI Equity ESG (0.68). Although both Axis ESG and Flexicap have a healthy AUM, the reward-to-variability ratio is not remunerative, concerning other schemes. It is revealed from Table 5 that the Flexicap of all AMC categories has surpassed ESG schemes apart from the Quant ESG Equity scheme. The data for two funds, namely, ICICI Prudential Flexicap Fund and Invesco India Flexi Cap Fund, are not available as both funds are less than three years old.

Table 5: Comparative Analysis Based on Sharpe Ratio		
Asset Management Company	**Schemes**	**Sharpe Ratio**
ICICI Prudential Mutual Fund	ICICI Prudential ESG Fund	0.67
	ICICI Prudential Flexicap Fund	No data available
Kotak Mutual Fund	Kotak ESG Exclusionary Strategy Fund	0.34
	Kotak Flexicap Opportunities Fund	0.67
SBI Mutual Fund	SBI Magnum Equity ESG Fund	0.68
	SBI Magnum Equity Flexicap Fund	0.78
Quant Mutual Fund	Quant ESG Equity Fund	1.58
	Quant Flexicap Equity Fund	1.33
Axis Mutual Fund	Axis ESG Equity Fund	0.36
	Axis Flexicap Equity Fund	0.43
Aditya Birla Sunlife Mutual Fund	Aditya Birla Sunlife ESG Fund	0.34
	Aditya Birla Sunlife Flexicap Fund	0.71
Invesco India Mutual Fund	Invesco India Equity ESG Fund	0.48
	Invesco India Flexi Cap Fund	No data available
Source: Data Based on https://valuereasearchonline.com		

Treynor Ratio

Treynor Ratio is the name given to the performance metric that Jack Treynor created. "It is the ratio of return volatility as determined by portfolio beta to the reward risk premium" (Kevin, 2022). It is expressed as:

$$T = \frac{r_p - r_f}{\sigma_p}$$

T = Treynor Ratio;

r_p = Portfolio's Return;

r_f = Risk Free Rate; and

σ_p = Beta of the Portfolio

Table 6 clearly shows that the difference between Treynor Ratio of ESG schemes and Flexicap schemes of SBI, Quant and Axis is not much. Thus, it can be interpreted that both ESG and Flexicap have performed more or less equally. However, Kotak Flexicap Opportunities Fund scoring 0.1 surpassed Kotak ESG Exclusionary Strategy Fund scoring 0.05. Similarly,

Aditya Birla Sunlife Flexicap Fund scored 0.1, surpassing Aditya Birla Sunlife ESG Fund scoring 0.05. Once again, Flexicap and Quant ESG secured the first place.

Table 6: Comparative Analysis Based on the Treynor Ratio

Asset Management Company	Schemes	Treynor Ratio
ICICI Prudential Mutual Fund	ICICI Prudential ESG Fund	0.11
	ICICI Prudential Flexicap Fund	No data available
Kotak Mutual Fund	Kotak ESG Exclusionary Strategy Fund	0.05
	Kotak Flexicap Opportunities Fund	0.1
SBI Mutual Fund	SBI Magnum Equity ESG Fund	0.1
	SBI Magnum Equity Flexicap Fund	0.12
Quant Mutual Fund	Quant ESG Equity Fund	0.24
	Quant Flexicap Equity Fund	0.22
Axis Mutual Fund	Axis ESG Equity Fund	0.06
	Axis Flexicap Equity Fund	0.06
Aditya Birla Sunlife Mutual Fund	Aditya Birla Sunlife ESG Fund	0.05
	Aditya Birla Sunlife Flexicap Fund	0.1
Invesco India Mutual Fund	Invesco India Equity ESG Fund	0.08
	Invesco India Flexi Cap Fund	

Source: Data Based on https://valuereasearchonline.com

Jensen Measure/Ratio

Kevin (2022) stated that "this ratio attempts to measure the differential between the actual return earned on a portfolio and the return expected from the portfolio given its level of risk". Since the portfolio manager's managerial expertise and predictive abilities are implied by the portfolio's differential return elasticities, the Jensen measure is an essential tool for evaluating portfolios. Jensen Measure can be expressed as:

$$Jensen's\ \alpha = R_p - \left[R_f + (R_m - R_f) * \beta_{p.m}\right]$$

R_p = Return on Portfolio

R_f = Risk-Free Rate

R_m = Return on the Market

R_f = Risk Free Rate

$\beta_{p.m}$ = Sensitivity of the Portfolio Return vs. Market Returns

Table 7 shows the difference in return between the peer Flexicap funds and the ESG mutual funds. With an alpha of 15.04, Quant ESG Equity funds came in first, followed by Quant Flexicap Equity Fund with a ranking of 10. Both funds have Alpha values that are significantly higher than ICICI Prudential ESG Fund (0.88). Table 7 also shows the interesting fact that the alpha of funds managed by other AMCs, such as ESG and Flexicaps, is negative. When the alpha value is negative, it indicates that the fund's performance has lagged behind the market. Positive values, on the other hand, indicate higher returns because of better market forecasting, superior management, etc.

Table 7: Comparative Analysis Based on Jensen Measure/Ratio

Asset Management Company	Schemes	Jensen Measure/Ratio
ICICI Prudential Mutual Fund	ICICI Prudential ESG Fund	0.88
	ICICI Prudential Flexicap Fund	No data available
Kotak Mutual Fund	Kotak ESG Exclusionary Strategy Fund	–3.82
	Kotak Flexicap Opportunities Fund	–2.48
SBI Mutual Fund	SBI Magnum Equity ESG Fund	0.78
	SBI Magnum Equity Flexicap Fund	–0.91
Quant Mutual Fund	Quant ESG Equity Fund	15.04
	Quant Flexicap Equity Fund	10
Axis Mutual Fund	Axis ESG Equity Fund	–2.64
	Axis Flexicap Equity Fund	–5.45
Aditya Birla Sunlife Mutual Fund	Aditya Birla Sunlife ESG Fund	–4.01
	Aditya Birla Sunlife Flexicap Fund	–1.87
Invesco India Mutual Fund	Invesco India Equity ESG Fund	–1.23
	Invesco India Flexi Cap Fund	

Source: Data Based on https://valuereasearchonline.com

Systematic Risk-Beta

According to Kelvin (2022), "the risk that is relevant in investment decision making is the systematic risk because it is unverifiable. Hence, the investor seeks to measure the systematic risk of a security".

As a result, beta measurement becomes more appropriate when considering risk. Inversely, greater variability would suggest increased systematic risk. The beta analogy between Flexicap and ESG schemes is shown in Table 8.

Table 8: Comparative Analysis Based on Beta		
Asset Management Company	**Schemes**	**Beta**
ICICI Prudential Mutual Fund	ICICI Prudential ESG Fund	**0.76**
	ICICI Prudential Flexicap Fund	No data available
Kotak Mutual Fund	Kotak ESG Exclusionary Strategy Fund	0.91
	Kotak Flexicap Opportunities Fund	0.98
SBI Mutual Fund	SBI Magnum Equity ESG Fund	0.96
	SBI Magnum Equity Flexicap Fund	0.89
Quant Mutual Fund	Quant ESG Equity Fund	1.02
	Quant Flexicap Equity Fund	1.02
Axis Mutual Fund	Axis ESG Equity Fund	**0.79**
	Axis Flexicap Equity Fund	0.92
Aditya Birla Sunlife Mutual Fund	Aditya Birla Sunlife ESG Fund	0.97
	Aditya Birla Sunlife Flexicap Fund	0.96
Invesco India Mutual Fund	Invesco India Equity ESG Fund	0.8
	Invesco India Flexi Cap Fund	No data available
Source: Data Based on https://valuereasearchonline.com		

Quant's ESG and Flexicap share the same beta of 1.02, making it the fund with the highest beta rate overall. A higher beta indicates greater return volatility for security in comparison to the market. Given that Quant's traditional and sustainable betas are both greater than 1, this suggests a risk that is above average. It has been discovered that, out of all the AMCs, there is not much of a difference in beta between traditional Flexicap funds and sustainable ESG funds. However, with a beta of 0.76, the ICICI Prudential ESG Fund has the lowest beta.

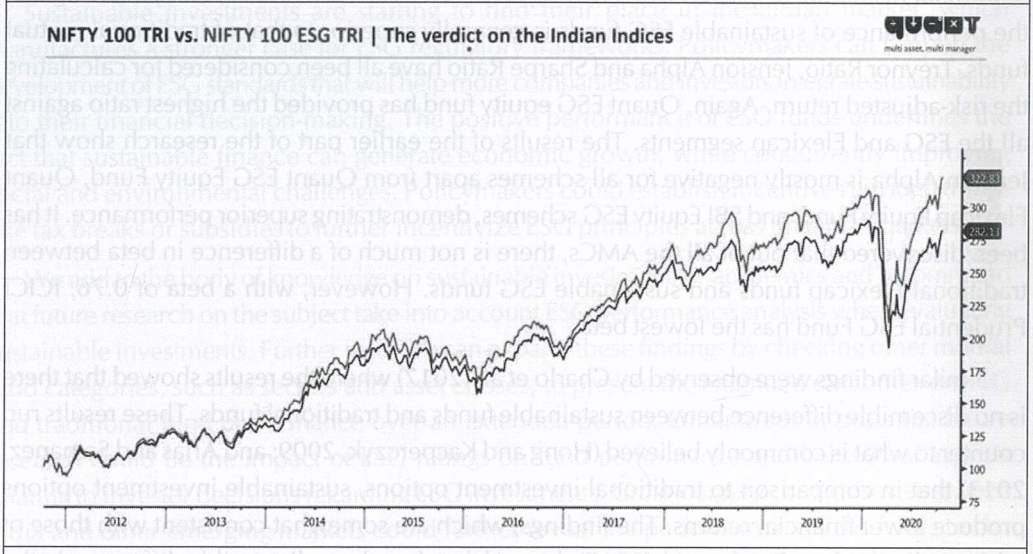
Analogy Between Leading Equity ESG Mutual Fund and Benchmark

A majority of mutual funds use the Nifty 100 ESG Total Return Index as their standard. The results show that Quant ESG Equity Fund has been the worst offender since its founding and for the year 2023. While the Nifty 100 ESG Total Return Index serves as the standard, the current study has taken into account the BSE S&P 100 to provide more accurate results. Without a doubt, Quant ESG equity fund outperformed the benchmark return and did exceptionally well across a majority of the parameters. Additionally, it was discovered that a majority of ESG mutual funds outperformed the NIFTY 100 ESG TRI benchmark. This is a huge discovery for the field of ESG investing because it shows that sustainable investments can outperform traditional ones over the long term and are also more profitable (Table 9).

Table 9: Indices and Ranking			
Index Name	**1 year**	**3 years**	**5 years**
BSE S&P 100	16.46	21.90	12.93
Index Name	1 year	3 year	5 year
NIFTY 100 ESG TRI	5.91	18.74	11.8

Additionally, according to a report by Quant Mutual Fund, Nifty 100 ESG TRI outperformed Nifty 100 TRI between 2012 and 2020. Consequently, it is abundantly clear that value investing, strong financial institutions, and good governance will cause sustainable investments. The top ESG scheme, Quant, outperformed traditional ones overall (Figure 1).

Figure 1: Nifty 100 vs. Nifty 100 ESG TRI



Source: Quant Mutual Fund (Bloomberg)

Conclusion

The last few decades have seen a rise in interest in sustainable investing. However, because they are thought to be less profitable or risky than traditional investments, investors frequently avoid sustainable investment opportunities. To tackle these issues, the present paper investigates the connection between traditional equity-based mutual funds and sustainable equity-based mutual funds by comparing them with regard to their returns, risk, risk-adjusted returns and other parameters.

The study began with two objectives: to draw an analogy between equity-based ESG mutual fund schemes and traditional Flexicap schemes; and to evaluate the performance of ESG mutual fund schemes in India.

According to the findings, for the latest period of 2023- 2024, in terms of AUM size, traditional Flexicap has more corpus than sustainable ESG mutual funds. The Covid-19 pandemic

may have played a significant role in radically altering the way businesses conduct themselves internationally while turning them into more sustainable ventures. That is the reason most of the ESG mutual funds originated during the pandemic period. However, the study also found that the expense ratio of conventional funds is cheaper than that of ESG mutual funds.

An extremely encouraging finding from the current paper is that the annualized return of sustainable funds has surpassed that of traditional Flexicap funds. In every category, Quant ESG scheme has performed better. During the pandemic-induced global stock market crash, ESG funds outperformed traditional funds. ESG has been favored over other investment options during the pandemic and has won the Covid-19 challenge convincingly. The findings support that in the post-pandemic era, sustainable investments are expected to have an even greater influence on conventional investments than they did in the past.

Similar results are displayed when risk-adjusted return is taken into account, showing that the performance of sustainable ESG funds is generally superior to that of traditional mutual funds. Treynor Ratio, Jension Alpha and Sharpe Ratio have all been considered for calculating the risk-adjusted return. Again, Quant ESG equity fund has provided the highest ratio against all the ESG and Flexicap segments. The results of the earlier part of the research show that Jension Alpha is mostly negative for all schemes apart from Quant ESG Equity Fund, Quant Flexicap Equity Fund, and SBI Equity ESG schemes, demonstrating superior performance. It has been discovered that out of all the AMCs, there is not much of a difference in beta between traditional Flexicap funds and sustainable ESG funds. However, with a beta of 0.76, ICICI Prudential ESG Fund has the lowest beta.

Similar findings were observed by Charlo *et al.* (2017) where the results showed that there is no discernible difference between sustainable funds and traditional funds. These results run counter to what is commonly believed (Hong and Kacperczyk, 2009; and Arias and Samanez, 2013) that in comparison to traditional investment options, sustainable investment options produce lower financial returns. The findings, which are somewhat consistent with those of other studies such as Charlo *et al.* (2017) showed that there is no discernible difference in the performance of sustainable indices and traditional conventional indices, with the former serving as a good substitute.

There has been a dearth of evaluation in this field, so thorough performance analysis of equity-based mutual funds has been taken into consideration to close this gap. This study exclusively compared benchmark performance, in addition to comparison within the category. Investors will gain a better understanding from this all-encompassing approach to evaluation. This method of assessing the long-term performance of sustainable investments is distinct. The results showed that since its launch in 2023, Quant ESG Equity Fund has performed the best. Undoubtedly, one of the most consistently performing mutual fund schemes is this one, especially considering its small AUM and recent entry into the market. A report by Quant Mutual Fund also disclosed that from 2012 to 2020, NIFTY 100 ESG TRI outperformed NIFTY 100 TRI. Thus, it is clear that value investing, strong financial institutions, good governance, and top ESG scheme quantitative investing have all contributed to sustainable investments'

overall performance above traditional investments. The findings and conclusions have significant ramifications for investors, AMCs and so on.

Implications and Further Research: The research has important implications for investors. It demonstrated that sustainable investment performance can provide strong risk-adjusted returns for a variety of investor profiles and encourage high corporate ESG standards of invested companies. Investors will undoubtedly be encouraged by the current study to think about long-term investment strategies that offer higher returns. The good performance of ESG funds, especially in emerging markets such as India, is thus encouraging fund managers to integrate ESG factors into their investment analysis. With the growth in interest and promising fund performances, fund managers should consider developing more sustainable thematic investment products that will meet the demands for financial return with social responsibility. This could also attract retail and institutional investors who seek to meet ESG criteria.

Sustainable investments are starting to find their place in the Indian market, which manufactures a stronger case for ESG regulatory frameworks. Policymakers can support the development of ESG standards that will help more companies and investors integrate sustainability into their financial decision-making. The positive performance of ESG funds underlines the fact that sustainable finance can generate economic growth, while concurrently improving social and environmental challenges. Policymakers could establish incentives through things like tax breaks or subsidies to further incentivize ESG principles across financial markets.

We add to the body of knowledge on sustainable investment for academics and recommend that future research on the subject take into account ESG performance analysis when evaluating sustainable investments. Further research can expand these findings by checking other mutual fund categories, such as sectors and asset classes, to present the extended outcomes on ESG and traditional fund performance over an extended period. Other areas of potential future research could be the impact of ESG ratings on fund performance and behavioral aspects relating to investor decisions regarding ESG investments. Cross-country comparisons between India and other emerging markets could further reveal the performance of ESG funds under different regulatory and economic conditions. Value could be added to the literature on sustainable investment through a detailed cost-benefit analysis of ESG integration, especially of expense ratios and the role of ESG funds during financial crises. This paper has demonstrated how the performance of ESG funds has been influenced by current policy and regulations, to underscore how government actions shape the growth and resilience of sustainable investments.

Limitations: Notwithstanding the insightful knowledge this study provided, a number of limitations need to be noted. Firstly, the sample size used was relatively small, consisting of mutual funds from a specific type, which may limit the generalizability of the findings. Secondly, due to data unavailability, some mutual fund schemes had to be omitted from the analysis. In the performance evaluation and comparison, a restricted set of parameters were taken into account, which may have resulted in the exclusion of other significant variables that could have affected the results. To gain a more thorough understanding of the performance and state of mutual funds in India, future research should try to overcome these constraints by utilizing a wider range of mutual fund schemes, different performance measures, and larger sample sizes.■

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