“COMPARISON BETWEEN THE PERFORMANCE OF ESG FUND AND TRADITIONAL EQUITY FUND”

A DISSERTATION SUBMITTED TO

GOA UNIVERSITY

In partial fulfilment of the requirement for the degree of

MBA (FINANCIAL SERVICES)

SEMESTER IV

SUBMITTED BY

SANJANA KASHINATH GAWAS

ROLL NO: 10-2021

UNDER THE GUIDANCE OF

DR. PINKY PAWASKAR

ASSISTANT PROFESSOR

MBA (FINANCIAL SERVICES)

GOA BUISNESS SCHOOL

GOA UNVERSITY

TALEIGAO PLATEAU, GOA

2023

DECLARATION

I hereby declare that the dissertation titled "Comparison between the performance of ESG fund and traditional equity fund" is an authentic and individualistic work done by me for the degree of MBA (FS) under the guidance and control of Assistant Professor Dr Pinky Pawaskar MBA (Financial Services) Goa Business School, Goa University, Goa. Study has not been published anywhere in books or article form.

For the current project that I am submitting to the university, I have not previously obtained a degree or diploma from this university or any other university.

Date:

Place: Goa Business School

Sanjana Kashinath Gawas

Roll no. 10-2021

MBA (FS) Semester (IV)

CERTIFICATE

This is to certify that the dissertation entitled “Comparison between the performance of ESG fund and traditional equity fund” is a record of work done by the candidate himself during the period of study under my guidance and to the best of my knowledge it has not previously formed the basis of the award of any degree or diploma by this or any other university.

Date:

Place: Goa Business School

Dr. Pinky Pawaskar

Assistant Professor

MBA (Financial Services)

Goa Business School

Goa University

ACKNOWLEDGEMENT

This Acknowledgement is a small work on my part to do justice and thank to the people who helped me to accomplish my dissertation.

I would like to thank my faculty guide, Dr Pinky Pawaskar, Assistant Professor, MBA (Financial Services), Goa Business School, Goa University for his precious guidance and support. I offer my sincere thanks for his valuable advice and suggestions which carried me through all the stages of writing my dissertation.

It is unfair to say that my dissertation has been completed, without mentioning the help and cooperation I received from the faculty member of the MBA (Financial Services) department.

CONTENTS

CHAPTER 1: INTRODUCTION

Mutual fund industry is growing industry in today's era .It is a pool of money collected from investors and is invested according to certain investment options plans. A mutual fund is a trust that pools investor number of saving who share common financial goals. A mutual fund is one of the best options for investment to those investors who cannot invest a lump sum amount and are interested to invest in the stock market. This investment aims to provide sustainable growth by providing various strategies which are used to maximize the profit of the investor while increasing long term environmental and social values. Investors have performed better through evaluations and excellent investment decisions because to the mix of conventional investments with environmentally-safe approaches, or ESG elements. (stobierski, 2022).

ESG (Environmental, Social and Governance) funds and traditional equity fund have different investment approaches. The main objective of ESG fund is to generate long term capital appreciation by investing in diversified companies who are environmental friendly in nature ,while traditional equity focus on how to maximizing returns without considering environmental factors. The performance of the both funds can vary depending on the market conditions and investment goals. These types of schemes are generally meant for investors with a long-term investment horizon and with a higher risk appetite.

The performance of ESG fund compared to traditional fund has been so many different suggestions , some studies suggesting that ESG funds have better than the traditional fund , while other suggests that they may underperform in certain market conditions . Base on this two thinking, it is important for investor to understand the difference between these funds and performance to make informed investment decisions that standardize their goals.

1.1 Investment Plans

- Direct Plan: Under direct plan investors can invest directly with a fund house where in no agent or distributor is involved and thus, they can save on costs. The direct plan has a separate NAV, which is generally higher than normal or regular plan as direct plan charges lower expenses because it does not entail paying any commission to agent/distributor and thus gets reflected in the form of higher NAV.

- Regular or Normal Plan: Under regular or normal plan investors can invest through an agent or distributor in order to avail their investment advice/services. The regular plan too has a separate NAV, which is generally lower than direct plan as former charges higher expenses in order to pay commission to an intermediary involved.

Investment Options

- Growth Option: Under growth option, dividends are not paid out to the unit holders. Income attributable to the unit holders continues to remain invested in the scheme and is reflected in the NAV of units under this option. Investors can realize capital appreciation if any, by way of an increase in NAV of their units by redeeming them.

- Dividend Pay-out Option: Dividends are paid out to the unit holders under this option. However, the NAV of the units falls to the extent of the dividend paid out and applicable statutory levies.

- Dividend Re-investment Option: The dividend that accrues on units under option is re-invested back into the scheme at ex-dividend NAV. Hence investors receive additional units on their investments in lieu of dividends.

1.2 LITERATURE REVIEW

This study examines ESG disclosure effects on corporate financial performance. It employed a sample of non-financial enterprises over a ten-year period (2000–2020) and applied a variety of staggered methodologies to identify problems. After using these techniques and methods, the author discovered a positive impact on corporate performance. It has been established that ESG disclosure has a favourable impact on financial performance. To build a better society, the ESG data should be distributed to regulators, investors, and businesses.**(Zhou et al., 2022).** Another study shows the portfolio risk relationship between ESG performance and downside risk in the equity mutual fund at the Chinese market. During the period from July 2018 to March 2021 it show positive downside risk in ESG performance and situation get worse or weakens during the covid- 19 pandemic. They had proposed 3 channels in which ESG fund performance is affected by downside risk they are Firm channel, Diversification channel, Flow channel. And due to this 3 channels ,they had found that there is mix information on ESG and very less awareness about ESG funds in Chinese market **(Zhang et al., 2023)**Another study examines the return expectations of investors and their awareness of ESG funds in order to determine if these factors have a positive or negative impact on the Chinese market. Furthermore, it has been established that the Chinese stock market lacks development in terms of ESG investments, large retail investor engagement, and escalating green policies. The potential undervaluation of ESG information has resulted in positive ESG expected return .In this study, we observed that the majority of retail investors disregard environmental, social, and governance (ESG) information prior to investing, which has a beneficial influence on the stock market, but when investors start actively trading information, the stock market is negatively impacted. **(Liu & Wan, 2023)**In another article they examined the effects of R&D and ESG performance on green innovation on the Chinese market is the primary goal of this study, which also used research on the moderating ESG effect. From 2015 to 2018, 223 Chinese listed firms were utilised. Regression analysis was used to determine the research hypotheses, and SynTao, an ESG index, was used to measure the ESG performance on green finance. Other measures included the total number of green patents, the number of green invention patents, and the number of non-invention patents. The results of utilising this measure indicated a beneficial impact on green innovation. ESG requirements are crucial to the improvement of any organisation **(Jang et al., 2022).** In this paper, the author examines how the performance of publicly traded corporations in terms of ESG factors commonly influences the company market value during financial crises and the COVID 19 pandemic. In this study, financial performance was used as a mediating variable, and linear regression models and mediating effect models were developed to examine the relationship between the three influencing factors of ESG performance, financial performance, and firm market value. More analysis reveals that state-owned listed companies' ESG performance has a larger mediation impact on corporate operating capability. This paper concludes with pertinent recommendations for investors, listed firms, and regulators. The market value of listed companies will increase as a result of improved ESG performance. **(Zhang et al., 2023)**.

The author in this article gives motivation to corporate engagement related to ESG and this will also play important role in protection of shareholders and sustainable growth of corporate .To do study this issue sample from 2010 to 2020 of Chinese public listed firm had used to know the managers misconduct behaviour perspective . It founded that quality of ESG engagement is significantly inhibits due to manager misconduct **(He et al., 2022)**

This study is based on the assumption that the external contingency element of the country modifies the association between business ESG and financial performance. He used ESG performance data from 4978 companies across 48 nations for this study's 17-year duration. They contend that because stakeholder evaluations and appreciations of a firm's ESG performance vary between countries, the financial return from ESG differs depending on the culture of the country. They discovered that nations with high levels of individualism or masculinity reflect more on fostering the link between a firm's ESG performance and financial performance. This discovery will assist multinational corporations in dealing with multiple cultural environments and stakeholder demands across international borders. **(Shin et al., 2023)** Another study shows the risk return performance of equities portfolios based on mixed ESG score. They concluded that if ESG portfolio is high, it will have reduced volatility, poorer returns, and it will also result in lower Sharpe ratios by using optimise equity portfolios of the NYSE from 2018 to 2019. When a high ESG portfolio underperformed, it nevertheless offered reasonable returns that were the same for all three components of corporate, social, and environmental governance. **(Javier Lopez ´ Pro et al, 2022)** A previous research has used bibliometric analysis and meta-analysis to analyse ESG performance and its effect on performance. Companies that engage in ESG activities benefit from increased financial returns and a positive reputation in the market place. This paper outlines three areas of research streams: (1) Firm characteristics and ESG performance, (2) Corporate governance and ESG performance and (3) Financial materiality of ESG disclosure.'' **(Khan, 2022).** The literature reviews examine ESG performance of Chinese listed companies on institutional investors to know the affect whether there or not. It has shown that institutional ownership has positive performance to corporate ESG. It is also show that positive ESG performance due to long term pressure insensitive and short term pressure sensitive on institutional investors. It is suggested that "such an association is especially evident among firms in regions with high levels of economic development and marketization'' **(Wang et al., 2023).**

In this paper researcher examine performance of the environmentally clustered portfolios using simple quantitative investment strategies. The findings indicated that environmental factors and the performance of a dynamic environment both have a significant impact on the financial decisions people make. It demonstrates that companies with low ratings have stronger financial results and less risky environmental leaders who exhibit greater resiliency **(Elettra Agliardi et al, 2023) .**The authors of this study looked at the impact of ESG performance on financial crises that were brought on by the global pandemic of covid 19. Investors consider ESG performance to be an indication of potential stock performance and risk reduction. They had showed '(i) high-ESG portfolios generally outperform low-ESG portfolios (ii) ESG performance mitigates financial risk during financial crisis and (iii) the role of ESG performance is attenuated in 'normal' times, confirming its incremental importance during crisis. **(Broadstock et al., 2021)**

In this article author studied during the covid 19 pandemic on the performance of SRI /ESG investment against conventional investment. Previous studies had done on performance of financial crises, author want to research on performance during covid 19 pandemic. They had used asset pricing models , abnormal return analysis and shape ratio methods to know about ESG ETFs in US and MSCI SRI indices for the world. Result showed there is the greater outperformance of SRI indices during the pandemic **(Akihiro Omura et al , 2021)** The author of this research article examined how ESG performance affects corporate value and profitability. He has chosen data from the Bloomberg database for the 5000 largest publicly traded corporations from 2013 through 2021. Research discovered a positive and significant correlation between the ESG combined score and company valuation .Individual social and governance scores have a positive impact on business value but environmental scores have no discernible association to firm worth. These findings suggest that a company can gain financially from investing in high ESG performance, both in terms of value and viability **(Mahmut Aydogmus¸et al, 2022).**

This paper's major goal is to assess how environmental protection, social responsibility, and corporate governance (ESG) performance have affected the cost of equity capital for Chinese enterprises during the past ten years. [2010 – 2020] According to benchmark study, ESG performance can considerably lower the cost of equity capital for listed companies, and this effect is persistent even when heteroscedasticity, sequence correlation, and cross-section correlation are simultaneously or separately controlled. It was observed that it will have a mediating effect on ESG both directly and indirectly, lowering the cost of equity capital by lowering market risk and increasing equity diversity. **(Yonghuai Chen et al, 2023) .**Another article is talk about the Impact of ESG performance on corporate dividend policy. They had used a panel data set made up of 1094 listed non-financial companies from 21 different European nations between 2002 and 2019.It showed that companies with higher ESG performance are likely to pay higher dividend as compared to not performing firms. They learn from the findings that endogeneity problems resist definitions and specifications based on many variables. After that, they had to look into the possible routes that could lead to better corporate ESG performance as well as better corporate dividend distribution. They had also provided novel evidence that will improve corporate dividends that balance risk and profits with ESG performance **(Seda Bilyay-Erdogan et al, 2023).** The next study is done on the effect of manager on "manipulative tendencies on firms". ESG performance from 2015 to 2000 is study using share pledging and management earning data. It is also found that share pledging is having negative impact ESG performance **(Jang et al., 2022).** Another studied is determines to know whether the ESG performance impact on the financial success of the companies. It is also identified that how develop and developing nations affected in terms of ESG performance on the corporate financial environmentally conscious firms. To study this researcher had taken total 383 samples of environmentally Sensitive Corporation, in which 305 corporation from developed countries and 78 corporations from emerging countries. They had taken had ESG has independent variable and return on equity and Tobin's Q as a dependent variable. Base on this research authors founded that there is the significant positive impact on the ESG performance. ESG performance more impact on the developed countries as compared to emerging countries **(Naeem et al., 2022).**

In next article author "test how financial performance and ESG score for large cap stock impact on stock return." It is also examined Europe stock performance to know how market capitalization, price to book value, Sharpe ratio and ESG score of large cap firms. The study period is selected from the year 2010 to 2020 of six European countries that is Portugal, Italy, Greece, Spain, France and Germany. In Greek and French firms there is negative effect on stock returns. Investor in European nation investing in companies which have high ESG scoring except Italy. After analysis of 6 European countries we come to know that investor not investing in high ESG scoring firm due to fear of loss of return, which means that sustainability concern not higher on the investor agenda. However, the advantage of not investing in high ESG score that will going to help the investor to select smaller size companies which have high book value price and high Sharpe ratio, it will also help to generate higher returns. Secondly they had used Euronext 100 large cap index to determine whatever finding we applied it is apply for all Europe or not . By investing in ethical business practises investor can gain higher in stock returns **(Gavrilakis & Floros, 2023)**

1.3 Needs and importance of the study

Mutual fund industry proved that it is a growing industry in present times. Presently there are number of investment plan options are available for investor in India to invest .Investor should select their investment portfolio based on the analysis done by Asset Management Companies in terms of fundamental, technical analysis. The most important problem / challenges faced by the investor is to be select which investment option plan will going to suit in terms of risk and returns. Hence, this study would help the investor to select asset Management Company according to performance of their top equity funds and thematic fund. It will also guide the investor regarding equity fund product to gain more by taking less risks. Very few investors want to invest in companies which are environment friendly policies. I had asked few investors regarding the investment in ESG fund and top performing equity fund of the AMC they said that ESG is giving less expected return as compared to other top performing equity fund, with respect with ESG fund and other traditional equity fund there is a gap in the research, which need to be identified.

- This study is done to analyse the performance of ESG fund and other traditional equity fund of AMC to ascertain the ranking on the basis of the return, risk and volatility. Therefore this study will going to help the investor to select right equity fund in their portfolio of investment, it also going gain long term profit.

Research Gap

Several studies from previous literature observed that many countries namely China, USA and European countries have conducted studies on performance of ESG funds. There has been a growing interest in the use of ESG criteria in investment decision making. However, there is still a research gap in comparing the performance of ESG funds and Traditional equity funds in India. Hence, this study fulfils the gap by conducting a comparative study on the performance of ESG funds and Traditional equity funds.

1.4 Research Objectives

1. To analyse the performance between ESG funds and other traditional equity funds of 5 AMC in India using Shape Ratio, Treynor’s Ratio and Jenson’s Ratio.
2. To compare the performance of the selected ten mutual fund schemes.

3. To know whether ESG fund have future in market.

1.5 Significance of Research

This paper provides Future of Mutual Funds industry information as well as how ESG funds are performing over the time. Also, this project report of Mutual Funds gives an outlook to investor to invest in the sustainable fund performance in the current market situation as a result what may be the future of this industry. This study also facilitates the general people who can understand the it is important to be environmental friendly investment.

1.6 Research and Methodology

The study aims at finding out ESG fund performance and equity fund performance in mutual fund AMC. This study was based mainly on secondary sources but I also asked some investors and relationship manger about this ESG fund performance .The secondary data were collected from the books, authentic websites and journals. The essential data were collected from different research papers.

1.7 Limitations of the study

The present study is based upon the comparison between the performance of ESG fund and traditional equity fund .The implications of the study are subject to the limitations getting data for more than 2 years is difficult because this fund recently started in India.

CHAPTER 2: ANALYSIS AND DISCUSSION

2.1 Introduction

In order to conduct the study, sample of 5 best performing AMC in India for the period of 1 April 2021 to 31 March 2023 (2 years) has been considered. The study includes 2 equity fund of the each AMC that is ESG fund and other one traditional equity fund. The data for this purpose is downloaded from authentic websites like NSE website, RBI website, and AMFI website. To compute the Sharpe Ratio, we have to consider values such as the other best performing equity fund and thematic ESG fund Mutual Fund Schemes average returns, Risk Free Rate of Returns, and the Standard Deviation. To compute the Treynor's Ratio, we have to consider values such as the equity fund Mutual Fund Schemes average returns, and Covariance & Variance to arrive at the Beta coefficient. To compute Jenson's ratio, we have to consider value such as the equity fund Mutual Fund schemes average returns, and Risk Free Rate of Return, Beta, Market return.

2.2 Source of Data

To conduct the study, we use secondary data such as the fund fact sheet of the respective Mutual Fund Scheme, Financial Databases, and internet sources. The Net Asset Values (NAV) of ESG funds and other best performing equity fund from AMFI website , the benchmark indices such as the 'Nifty 50 ' have been collected from NSE website . For the purpose of this study, we consider the '91-Day Government of India Treasury Bill' (91-Day GOI T-Bill). We collected the values of the '91-Day GOI T-Bill' from the Reserve Bank of India Website (rbi.org.in).

2.3 Statistical Tools

To fulfil the objectives of our study, we analyse the ESG fund and other best performing equity fund of Mutual Fund Schemes by using risk-adjusted performance ratios such as Sharpe Ratio ,Treynor's Ratio and Jenson's Ratio.

2.3.1 Beta Coefficient

The Beta Coefficient measures the volatility or systematic risk of a security with comparison to the market as a whole.

The Beta Coefficient is calculated as:

β = $Rx, Rm\ Rm$

Where;

β = Beta Coefficient

Rx, Rm = Covariance

Rm = Variance

2.3.2 Portfolio (Rx) and Index (Rm) Average Returns

To arrive at the average returns of the Portfolio (Mutual Fund Scheme) and the Benchmark Index, we take the average of the daily Net Asset Values (NAV) Returns and the average of the daily Benchmark Index Returns. We further use this data to compute the Sharpe Ratio and the Treynor's Ratio.

2.3.3 Standard Deviation

It shows a fund's volatility .It means that how much return of the fund is increase or decrease in a short period of time. It measures risk fluctions in relation to the average returns. In case if average return is fixed or constant for certain duration of time period , the standard deviation will be zero .If average return is low then low volatile , then there will be a low standard deviation and vice versa.

2.3.4 Sharpe Ratio

Sharpe ratio is the measure of risk-adjusted return of a financial portfolio. A portfolio with a higher Sharpe ratio is considered superior relative to its peers. The measure was named after William F. Sharpe, a Nobel laureate and professor of finance, emeritus at Stanford University.

The Sharpe Ratio is calculated as:

$$Sa = \frac{Rp - Rf}{\sigma}$$

Where;

Sa = Sharpe Ratio

Rp = Portfolio Average Returns

Rf = Risk Free Rate of Return f

σ = Standard Deviation

2.3.5 Treynor's Ratio

Treynor's ratio shows the risk adjusted performance of the fund. Here the Denominator is the beta of the portfolio. Thus, it takes into account the Systematic risk of the portfolio.

The Treynor's Ratio is calculated as: -

$$T = \frac{Rp - Rf}{\beta}$$

Where;

T = Treynor's Ratio

Rp = Portfolio Average Returns

Rf = Risk Free Rate of Return

β = Beta Coefficient

2.3.6 Jenson's Ratio

Jenson's ratio shows difference in portfolio returns and overall market returns. It measure good adjusted risk performance.

The Jenson's Ratio is calculated as :

$a = RP - RF + \beta\ (RM-RF))$

Where:

Rp = Portfolio Average Returns

Rf = Risk Free Rate of Return

β = Beta Coefficient

Rm = Market Return

Computation of Sharpe Ratio, Treynor's Ratio and Jenson's ratio

Table 1: SBI MUTUTAL FUND AMC

Scheme Name	**SBI MAGNUM ESG FUND REGULAR GROWTH**	**SBI CONTRA FUND REGULAR GROWTH**
Portfolio Average Returns	0.033771065	0.080132879
Risk Free Rate of Return	4.66625	4.66625
Standard Deviation of the Portfolio Returns	0.9517876	0.873804095
Covariance	0.881042667	0.733884855
Variance	0.905899636	0.763533597
Beta Coefficient	0.972561013	0.96116904
Sharpe Ratio	-4.867135204	-5.248450018
Treynor's Ratio	-4.76317565	-4.771394969

Jenson’s Ratio	-0.129243739	-0.135630013

The Sharpe Ratio measures the amount of returns the investor receives for each unit of risk taken. Ideally the Sharpe Ratio should be higher, which means that the investor has been rewarded by a greater extent for every unit of risk taken. As per ‘Table 1 ’, the Sharpe Ratio for SBI Magnum ESG fund and SBI contra fund stands at -4.867135204 and -5.248450018 respectively. A beta value measure the volatility of stocks in overall market. If beta is more than 1 it indicates that market is more volatile. If we observe that Sharpe ratio of both the fund in the selected observation period have generated negative value .If we compare both the fund, SBI Magnum ESG fund have highest Sharpe ratio in comparison with SBI Contra fund. The reason for this outcome is due to the markets fluctuation in the selected observation period of two year .The Treynor‘s ratio is the similar to the Sharpe Ratio measure the amount of returns the investor received against the benchmark. If Treynor’s ratio is higher, this means that the investor has been rewarded thoughtfully for the amount of risk taken. If we observe both the funds of Treynor’s ratio it is quite similar to each other. SBI magnum ESG have higher Treynor’s ratio than SBI contra fund. Jenson’s ratio measures the good adjusted risk performance portfolio. If the ratio is high it is significant that there is higher stock return. In SBI contra fund there is high excess of return as compared to SBI Magnum ESG fund.

Table 2: Aditiya Birla Sun Life Mutual Fund

Scheme Name	**ABSL ESG FUND REG GROWTH**	**ABSL FLEXICAP FUND REG GROWTH**
Portfolio Average Returns	0.020570012	0.032171555
Risk Free Rate of Return	4.66625	4.66625
Standard Deviation of the Portfolio Returns	1.021571353	0.947692929
Covariance	0.899420253	0.87061463
Variance	1.04360803	0.898121887

Beta Coefficient	0.861837229	0.969372467
Sharpe Ratio	-4.54758248	-4.889852298
Treynor‘s Ratio	-5.390437812	-4.780493155
Jenson’s Ratio	-0.655127527	-0.145607125

In the above table 2 we observe two funds of Aditya Birla Sun Life Mutual Fund AMC that is ABSL ESG fund and ABSL Flexi cap fund. The Treynor’s ratio and Sharpe ratio measure the amount of returns the investor received against the benchmark. Sharpe ratio of ABSL ESG fund is -4.54758248 which is better than ABSL Flexi cap fund -4.889852298. The Treynor’s ratio for ABSL ESG fund and ABSL Flexi cap fund stand at -5.390437812 and -4.780493155 respectively. We observe that ABSL Flexi cap fund has the highest Treynor’s ratio in comparisons with ABSL ESG fund. In case of Jenson’s ratio both the fund ABSL ESG fund have high excess return and ABSL Flexi cap fund have less return.

Table 3: ICICI Mutual Fund AMC

Scheme Name	**ICICI ESG FUND REGULAR GROWTH**	**ICICI BLUECHIP FUND REGULAR GROWTH**
Portfolio Average Returns	0.025130788	0.047868998
Risk Free Rate of Return	4.66625	4.66625
Standard Deviations of the Portfolio Return	0.794322003	0.876738826
Covariance	0.685706076	0.829425911
Variance	0.630947444	0.768670969
Beta Coefficient	1.086787945	1.079038944
Sharpe Ratio	-5.842868755	-5.267681622
Treynor’s Ratio	-4.270491989	-4.280087412

Jenson's Ratio	0.391019295	0.37787742

In the above table 3 we can see two equity funds of ICICI Mutual Fund AMC they are: ICICI ESG fund and ICICI Blue-chip regular growth fund. Both the funds Sharpe ratios are quite similar to each other's, ICICI ESG fund is having – 5.842868755 and ICICI Blue-chip fund is giving -5.267681622.If we compared both the fund of ICICI than fund Blue-chip is giving better returns. The Treynor's ratio of both the fund is almost same to each that is – 4.270491989 and – 4.280087412 respectively. Jenson's ratio of ICICI ESG is having high excess return as compared to ICICI Blue-chip fund.

Table 4: KOTAK MUTUAL FUND AMC

Scheme Name	**KOTAK ESG OPPORTUNITIES FUND REG GROWTH**	**KOTAK SMALL CAP FUND**
Portfolio Average Returns	0	0.056836517
Risk Free Rate of Return	4.66625	4.66625
Standard Deviation of the Portfolio Return	0.963701541	0.870230832
Covariance	0.882225343	0.622810467
Variance	0.928720659	0.7573017
Beta Coefficient	0.949936166	0.822407327
Sharpe Ratio	-4.822098259	-5.296771058
Treynor's Ratio	-4.891974522	-5.604781636
Jenson's Ratio	0	-0.801432728

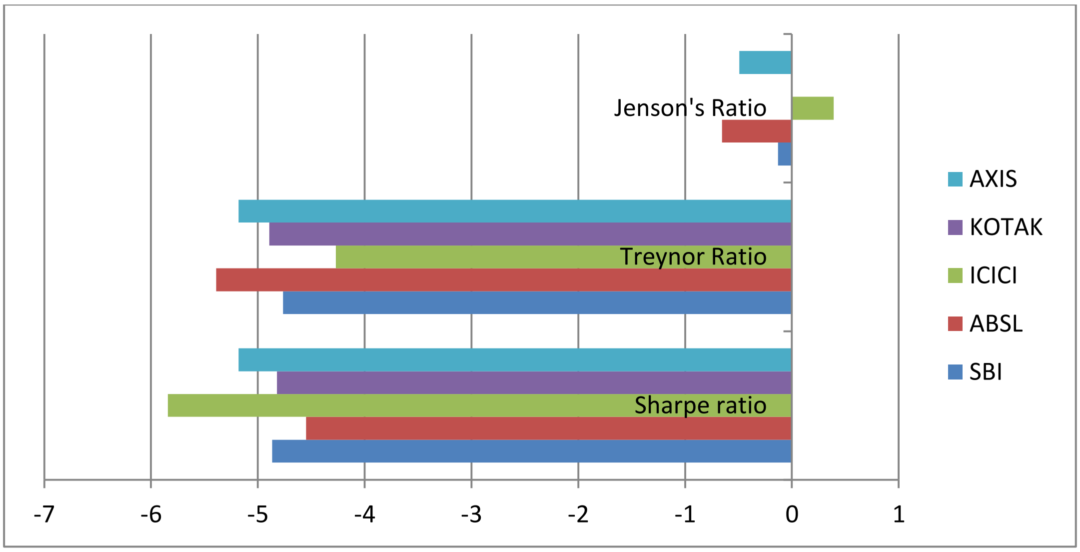
In the above table number 4 we can see 2 funds of Kotak Mutual fund AMC they are Kotak ESG Opportunities fund and Kotak Small Cap fund. The Sharpe ratio, Treynor's ratio, and Jenson's ratio help us to know the how much risk to be adjusted. So if we compare the both the fund Sharpe ratios than Kotak ESG fund is giving better return to investor against the benchmark. In case of Treynor's ratio if we compared both the funds then Kotak ESG fund is giving higher than (– 4.891974522) then Kotak Small Cap fund (- 5.604781636). In case of Jenson's ratio Kotak ESG fund is having high excess return and Kotak Small Cap have low return.

Table 5: AXIS MUTUAL FUND AMC

Scheme Name	**AXIS ESG EQUITY FUND REG GROWTH**	**AXIS SMAILL CAP REGULAR GROWTH**
Portfolio Average Returns	0.014395557	0.071145612
Risk Free Rate of Return	4.66625	4.66625
Standard Deviation of the Portfolio Returns	0.897909212	0.887799242
Covariance	0.724019943	0.634699969
Variance	0.806240953	0.788187495
Beta Coefficient	0.898019308	0.805265211
Sharpe Ratio	-5.180762577	-5.175837249
Treynor's Ratio	-5.180127422	-5.706324232
Jenson's Ratio	-0.493768625	-0.866496523

In table 5 we can see the 2 equity fund of the Axis Mutual Fund AMC .The first fund we can observe in above table is Axis ESG fund and second one is Axis Small Cap fund. We can observe that both the ratio of Sharpe and Treynor's are in negative figures. If we compared both the funds in case of Sharpe ratio than Axis ESG fund -5.180762577 it is not as good as Axis Small cap fund that is – 5.175837249 . Another in case of Treynor's ratio Axis Small cap fund (-5.706324232) is lower than Axis ESG fund (-5.180127422) portfolio returns. If we compare the both the Jenson ratio then Axis Small cap gives excess return as compared to Axis ESG fund .

ESG FUND PERFORMANCE



.

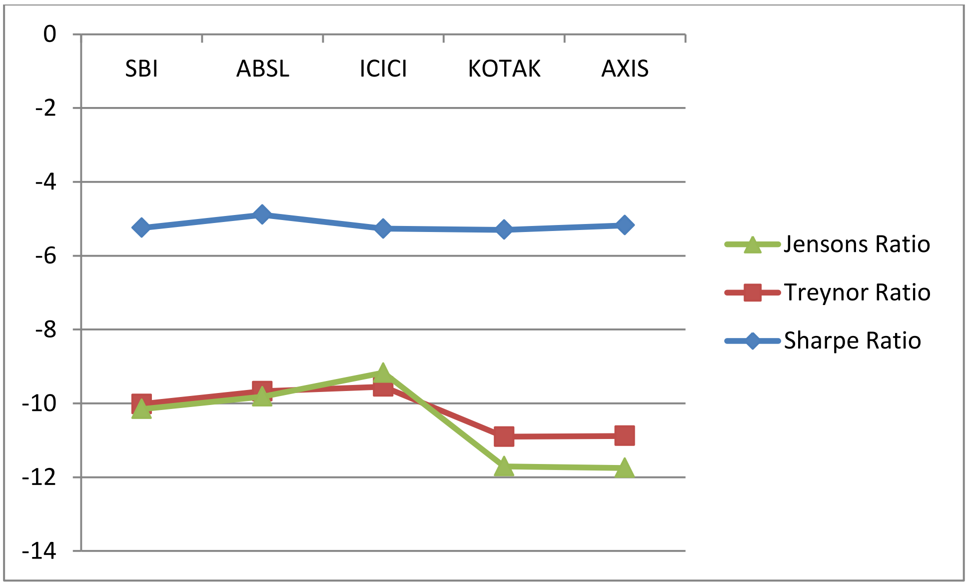
In the above graph we can see the ESG fund performance for the period of 2 years (1/ 04/2021 to 31 /03/2023) of 5 AMC of India that are SBI Magnum ESG fund , ABSL ESG fund , ICICI ESG fund , Kotak ESG Opportunity fund , and Axis ESG Equity fund . If we see the Sharpe ratio for are SBI Magnum ESG fund , ABSL ESG fund , ICICI ESG fund , Kotak ESG Opportunity fund , and Axis ESG Equity fund stands at – 4.867135204 , - 4.54758248 , - 5.842868755 , - 4.822098259 and – 5.1807626 respectively . We observe that the Sharpe Ratios for all schemes in the selected observation period have generated negative values. The reason for this outcome is due to the markets being very volatile in the selected observation period of one year and this ESG fund concept is very new in a Indian market. We observe that ABSL ESG Fund has the highest Sharpe Ratio in comparison with the other

AMC ESG Fund ratio , and ICICI Prudential ESG Fund had the lowest Sharpe Ratio among the other ESG Fund Schemes.

The Treynor's Ratio similar to the Sharpe Ratio measures the amount of returns the investor receives against the benchmark. Ideally the Treynor Ratio should be higher, which means that the investor has been rewarded handsomely for the amount of risk taken. The Treynor Ratio for SBI Magnum ESG fund , ABSL ESG fund , ICICI ESG fund , Kotak ESG Opportunity fund , and Axis ESG Equity fund stands at - 4.76317565 , - 5.390437812 , - 4.270491989 , - 4 .891974522 and – 5.1801274 respectively. We observe that ICICI ESG Fund has the highest Treynor's Ratio in comparison with the other ESG Fund Schemes, and Aditya Birla Sun Life ESG Fund has the lowest Treynor's Ratio among the other ESG Fund Schemes.

The Jenson's ratio show the how much different in portfolio generates return and overall market return. The Jenson's ratio for SBI Magnum ESG fund , ABSL ESG fund , ICICI ESG fund , Kotak ESG Opporunity fund , and Axis ESG Equity fund stands at – 0.129243739, - 0.655127527 , 0.391019295 , 0 and - 0.4937686 respectively . We observe that Kotak ESG Opportunity Fund has the highest Jenson's Ratio in comparison with the other ESG Fund Schemes, and Aditya Birla Sun Life ESG Fund has the lowest Jenson's Ratio among the other ESG Fund Scheme.

TRADITIONAL BEST PERFORMING EQUITY FUND



In the above graph we can see the traditional equity fund performance for the period of 2 years (1/ 04/2021 to 31 /03/2023) of 5 AMC of India that are SBI Contra fund , ABSL Flexi cap fund , ICICI Blue-chip fund , Kotak Small cap fund , and Axis small cap fund . If we see the Sharpe ratio for SBI Contra fund , ABSL Flexi cap fund , ICICI Blue-chip fund , Kotak Small cap fund , and Axis small cap fund are Equity fund stands at – 5.248450018 ,4.889852298, -5.267681622 , 5.296771058 , and 5.1758372 respectively . We observe that ABSL Flexi cap Fund has the highest Sharpe Ratio in comparison with the other AMC equity Fund ratio, and Kotak Small Cap Fund had the lowest Sharpe Ratio among the other equity Fund Schemes.

The Treynor's Ratio similar to the Sharpe Ratio measures the amount of returns the investor receives against the benchmark. The Treynor Ratio for SBI Contra fund , ABSL Flexi cap fund , ICICI Blue-chip fund , Kotak Small cap fund , and Axis small cap fund Equity fund stands at -4.771394969, -4.780493155 , -4.280087412 , -5.604781636 and -5.7063242 respectively. We observe that SBI Contra Fund has the highest Treynor's Ratio in comparison with the other equity traditional Fund , in which Axis small cap Fund ratio has the low ratio .

We observe ICICI small cap Fund has the highest Jenson's Ratio in comparison with the other equity Fund Schemes and Axis small cap Fund has the lowest Jenson's Ratio among the other traditional equity Fund Scheme

ABSL AMC	ESG Fund	Traditional Equity Fund	Difference
Sharpe ratio	-4.547582	-4.889852	0.342270
Treynor Ratio	-5.390438	-4.780493	-0.609945
Jenson's Ratio	-0.655128	-0.145607	-0.509520

KOTAK AMC	ESG Fund	Traditional Equity Fund	Difference
Sharpe ratio	-4.822098	-5.296771	0.474673
Treynor Ratio	-4.891975	-5.604782	0.712807
Jenson's Ratio	0.000000	-0.801433	0.801433

SBI AMC	ESG Fund	Traditional Equity Fund	Difference
Sharpe ratio	-4.867135	-5.248450	0.381315
Treynor Ratio	-4.763176	-4.771395	0.008219
Jenson's Ratio	-0.129244	-0.135630	0.006386

AXIS AMC	ESG Fund	Traditional Equity Fund	Difference
Sharpe ratio	-5.180763	-5.175837	-0.004925
Treynor Ratio	-5.180127	-5.706324	0.526197
Jenson's Ratio	-0.493769	-0.866497	0.372728

ICICI AMC	ESG Fund	Traditional Equity Fund	Difference
Sharpe ratio	-5.842869	-5.267682	-0.575187
Treynor Ratio	-4.270492	-4.280087	0.009595
Jenson's Ratio	0.391019	0.377877	0.013142

CHAPTER III: FINDINGS AND CONCLUSION

3.1 Conclusion

The Sharpe ratio, Treynor ratio and Jenson's alpha are used to measure adjusted risk performance in finance. The Sharpe ratio measures the excess return on per unit of risk, with high ratio significant that risk adjusted performance is better. The Treynor ratio measures the excess of a portfolio relative to the risk free rate per unit of systematic risk, with higher ratio indicate that better in terms of systematic risk. Jensons's alpha measures the excess return of the portfolio compared to its expected return based on its level of risk, with positive alpha indicting good performance than expected based on the level of risk.

.

The highest Sharpe, Treynor's and jenson's ratios in both the fund has been attained by ABSL AMC, followed by Kotak Securities AMC, SBI MF AMC, AXIS AMC , and ICICI . If we compare both the funds then ESG fund has future growth because most of the people and government want an environment friendly country. ESG fund are investing more in sustainability companies. If we compared both the funds return than there is little bit of different is there ,but in terms of ESG fund it is new in Indian market and most of investors are not aware about this schemes , if AMC aids to provide information and awareness about ESG funds to people then these funds will have a good future. Even if we going to see both funds ratio they are in negative figures this might be due to market volatility and impact of covid 19 that affect the Indian market. For any future researcher wishes to carry forward they can try to find ESG awareness and behaviour of investors.

3.2 REFERENCE

Broadstock, D. C., Chan, K., Cheng, L. T. W., & Wang, X. (2021). The role of ESG performance during times of financial crisis : Evidence from COVID-19 in China. *Finance Research Letters*, *38*(August 2020), 101716. https://doi.org/10.1016/j.frl.2020.101716

Gavrilakis, N., & Floros, C. (2023). ESG performance , herding behavior and stock market returns : evidence from Europe. *Operational Research*, *23*(1), 1–21. https://doi.org/10.1007/s12351-023-00745-1

He, F., Du, H., & Yu, B. (2022). *International Review of Financial Analysis Corporate ESG performance and manager misconduct : Evidence from China*. *82*(February). https://doi.org/10.1016/j.irfa.2022.102201

Jang, G., Kang, H., & Kim, W. (2022). Corporate executives ' incentives and ESG performance. *Finance Research Letters*, *49*(June), 103187. https://doi.org/10.1016/j.frl.2022.103187

Khan, M. A. (2022). Research in International Business and Finance ESG disclosure and Firm performance : A bibliometric and meta analysis. *Research in International Business and Finance*, *61*(April), 101668. https://doi.org/10.1016/j.ribaf.2022.101668

Liu, X., & Wan, D. (2023). Research in International Business and Finance Retail investor trading and ESG pricing in China. *Research in International Business and Finance*, *65*(February), 101911. https://doi.org/10.1016/j.ribaf.2023.101911

Naeem, N., Cankaya, S., & Bildik, R. (2022). Borsa _ Istanbul Review Does ESG performance affect the fi nancial performance of environmentally sensitive industries ? A comparison between emerging and developed markets. *Borsa Istanbul Review*, *22*, S128–S140. https://doi.org/10.1016/j.bir.2022.11.014

Shin, J., Jungbien, J., & Kang, J. (2023). Where does ESG pay ? The role of national culture in moderating the relationship between ESG performance and financial performance. *International Business Review*, *32*(3), 102071. https://doi.org/10.1016/j.ibusrev.2022.102071

Wang, Y., Lin, Y., Fu, X., & Chen, S. (2023). Institutional ownership heterogeneity and ESG performance : Evidence from China. *Finance Research Letters*, *51*(November 2022), 103448. https://doi.org/10.1016/j.frl.2022.103448

Zhang, N., Zhang, Y., & Zong, Z. (2023). International Review of Financial Analysis Fund ESG performance and downside risk : Evidence from China. *International Review of Financial Analysis*, *86*(January), 102526. https://doi.org/10.1016/j.irfa.2023.102526

Zhou, G., Liu, L., & Luo, S. (2022). *Sustainable development , ESG performance and company market value : Mediating effect of financial performance*. *April*, 3371–3387. https://doi.org/10.1002/bse.3089