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An Analytical Study On The Impact Of SBI Magnum ESG Equity Funds On NIFTY 100 ESG Index

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Abstract

The United Nations Principles for Responsible Investment works to promote the incorporation of environmental, social, and corporate governance factors into investment decision-making. ESG (Environmental, Social, and Governance) mutual funds have gained prominence globally, including in India, due to an increased emphasis on sustainable and responsible investing. There are some main characteristics and trends associated with ESG mutual funds like- integration of ESG criteria, sustainability focus, long-term investment perspective, risk management strategy, regulatory landscape, impact investing, etc. India is experiencing a growing interest in sustainable and responsible investment practices. Investment in ESG mutual funds can provide a way for investors to align their values with their investments, potentially improve financial performance, and manage risk. ESG mutual funds have shown strong financial performance in recent years. A company's ability to be innovative and efficient can lead to long-term sustainable success when ESG factors are given priority. Companies that have a strong ESG profile are less likely to face legal and reputational risks that can negatively impact their financial performance and can help investors avoid companies that are at risk of legal or regulatory action, reputational damage, or financial instability. Investors in today's world are reevaluating traditional approaches and taking the environment into account while making investments. Hence, as part of their selection procedures, investors are starting to take ESG factors into account. In a warning, the World Economic Forum (WEF) listed five of the six biggest global risks as being influenced by climate change. Companies would be required to develop a climate resilience adaption strategy to be future ready.

Therefore, investors must look at sustainable investing areas. This research is crucial to monitor developments in ESG investing through mutual funds, including changes in regulatory frameworks, industry best practices, and the evolving preferences of investors seeking sustainable and responsible investment options

Key Words: ESG, Mutual Fund, NIFTY, India

Introduction

An ESG mutual fund in India is a type of investment instrument that invests primarily in equity shares of companies that meet certain environmental, social, and governance (ESG) criteria. These funds aim to promote sustainable business practices and foster positive impact investing in India. ESG Funds invest in organizations that are ESG-compliant and aim at sustainable growth. The companies' business plans allow them to generate long-term value for investors while also enabling them to achieve sustainability criteria. This is more important. Depending on its investment strategy, the fund may distribute its assets throughout market capitalizations and occasionally to overseas stocks that follow the ESG framework. The fund managers of ESG funds avoid investing in companies with poor corporate governance or that provide products and services that are harmful to the environment and society, like alcohol, tobacco, gaming, etc.

The Securities and Exchange Board of India (SEBI) regulates the ESG mutual funds industry in India. They offer various investment strategies like fund investing in renewable energy, sustainable development, and corporate social responsibility. The foundation of ESG mutual funds in India has been built on the back of the growing interest among Indian investors in ethical and responsible investing. ESG funds are relatively new to the Indian market and have gained some quiet popularity. Mutual fund companies need to step up and be more responsible for the sake of the future to build up their favourite investment destination for investors. In India, there are nine mutual fund companies providing ESG funds with an approximate AUM of Rs. 9,986 crores.



Source- Author 'own

Literature Review and Hypothesis Development

A literature review is not just a summary of earlier research; it is an analytical and critical evaluation of the corpus of work that serves as background knowledge for your investigation. Many studies were conducted on sustainable investment. Nonetheless, India has seen comparatively little research activity. It's possible that in India, ESG is still relatively new. As such, the majority of studies on the subject of ESG come from other countries in general, but not many from India.

Ritika Seth et al. (2021) described that ESG investment originated from protests against firms that created firearms, tobacco, and other products during the Methodist Movement more than 200 years ago. In 1971, Pax World launched the nation's first sustainable mutual fund. This fund was started by two United Methodist preachers, Jack Corbett and Luther Tyson, who opposed using church donations to assist companies that were participating in the Vietnam War. They encouraged companies to adhere to ethical and environmental standards and made an effort to match their core values with their investment decisions. This mutual fund is still running right now.

Dr. Swapan Sarkar (2022) explained that the report essentially shows that India is becoming a more active investor in ESG funds, even though the country's growth is still slower than that of other big economies worldwide. This may be the case because Indian investors are still hesitant to include governance, social, and environmental concerns in their investment portfolio construction.

Jeanette Carlsson Hauff & Jonas Nilsson (2022) highlighted that How well individual retail investors are assessing the various ESG strategies is not widely understood. All in all, we discover that every individual has a different perspective on the different methods. Thus, it seems that the issue for both participating fund companies and the general investor is "how" sustainable investment is executed. Given the increase of funds accessible with an ESG profile and the sustainability-focused marketing and communication that is progressively highlighting ESG aspects, this is not surprising.

Shane S. Dikolli et al. (2022) highlighted that the index ESG funds might be more likely to keep an eye on companies when it comes to environmental & social issues because they have publicly stated their commitment to these issues through their investment criteria in the prospectus filed with the United States, the Securities and Exchange Commission (SEC). Therefore, we expect and find that index funds—far more so than active funds—show stronger support for ES proposals from ESG funds relative to non-ESG funds.

Jasvinder Kaur & Rashmi Chaudhary (2021) described that ethical investing is still relatively new in India. The Nifty 100 Enhanced ESG Index and the Nifty 100 ESG Index were released in 2018. The National Stock Exchange (NSE) debuted two thematic indexes in 2012, while the Bombay Stock Exchange (BSE) debuted two sustainable thematic indices, Greenex and Carbonex. India is supported by the "Domini 400 Social Index," the first sustainable index. This index was created in 1990 to promote theme-based investing that is sustainable. Moreover, Indian financial institutions haven't developed ethical investment all that much.

A. Akhileshwari et al. (2021) described that ESG mutual funds are becoming widely accepted these days. The assertion that sustainability and profitability are mutually exclusive is no longer valid. The global financial crisis, the onset of COVID-19, knowledge of climate change, ethics and values, environmental consciousness, the regulatory environment, reduced risk, and other considerations are some of the drivers that

are currently driving ESG investments internationally. Some people believe that because sustainable investing, or ESG investment, is still relatively new in India, it won't yield better results. There is no discernible difference in profitability between conventional and sustainable investments.

Dr. Madhu Bala (2022) described that the necessity for revisions to the out-of-date financial metrics-only approach to investment evaluation has been recognized and emphasized. This can be achieved by including environmental, social, and governance (ESG) factors into the financial criteria that are employed to assess the value of a business. It is believed that doing so would increase the company's and the economy's overall susceptibility to shocks related to global sustainability. This school of thought has brought attention to the significance, value, and interdependence of the financial system and sustainability. The COVID-19 pandemic may act as a reminder that, despite the great difficulty involved, risk-resilient organizations are more crucial than ever.

Shikha Gupta (2022) described that it is commonly known that companies may only attain performance sustainability over the long run by following these recommendations. Consequently, a worldwide ESG movement has emerged, and a new wave of investors sees ESG investing as a way to further sustainable development. In this instance, investing in ESG mutual funds has grown in popularity and seen a notable capital inflow in recent years.

Research Methodology

Secondary sources, including books, journals, newspapers, the NSE website, and the SBI mutual fund website provided the data for this analytical study. In this study, the researcher aims to Determine whether the mean difference of various ESG equity funds within SBI Mutual Fund are statistically similar or if there are significant differences & assess the impact of various ESG equity funds provided by the SBI mutual fund on the Nifty 100 ESG index. The study has a five-year duration, starting in January 2019 and ending in December 2023.

Objectives

The main objective of the study is to investigate the growth and performance of ESG funds provided by SBI mutual funds.

- 1- To Determine whether the mean performance metrics of various ESG equity funds within SBI Mutual Fund are statistically similar or if there are significant differences.
- 2- To Evaluate whether the ESG equity funds within SBI Mutual Fund are efficiently tracking or impacting the Nifty 100 ESG index.
- 3- To examine the impact of ESG mutual funds on the Indian economy

Hypothesis

- H0 (a): There is no significant difference in the mean of SBI magnum ESG equity funds' NAV in the last five years.
- H1 (a): There is a significant difference in the mean SBI magnum ESG equity funds' NAV in the last five years.
- H0 (b): There is no significant impact of SBI magnum ESG equity funds on NIFTY 100 ESG index.
- H1 (b): There is no significant impact of SBI magnum ESG equity funds on NIFTY 100 ESG index.

Data Sources

The NAV of SBI magnum equity funds was collected from SBI mutual fund website. The NAV of NIFTY 100 ESG index was collected from NIFTY indices website.

Sampling Frame

The four ESG funds offered by SBI Funds Management Ltd and NIFTY 100 ESG index issued by National Stock Exchange constitute the sample frame for this study.

Sampling Method

The whole enumeration method i.e. four out of four ESG funds of SBI Fund Management included in the sample & NIFTY 100 ESG index chosen from NSE.

Sample Size

The NAV of four ESG funds offered by SBI Funds Management Ltd are considered from 1 January 2019 to 29 December 2023 (5 years) & NIFTY 100 ESG index is included in the sample for the same period in analysis.

Data Analysis Techniques

One-way ANOVA and Multiple Linear Regression tests were used to test the hypotheses.

Scope of Study

The study is restricted to Indian capital markets for a research survey and review. The research comprises the Magnum Equity ESG funds of the State Bank of India Mutual Fund & finding the impact of these funds on the Nifty 100 ESG index. This study will help to understand the progress, trend, and in-depth analysis of SBI ESG magnum equity mutual funds to determine investment opportunities.

Limitations for the Study

The State Bank of India mutual fund's initiatives for ESG companies are the only ones covered by this study. The research was done on the NSE 100 ESG index and SBI Magnum ESG Mutual Fund NAVs from 2019 to 2023. The study area is limited to India. There are no plans to use foreign capital markets for funding.

SBI Magnum Equity ESG Fund

On November 27, 2006, this fund was established. It is an equity open-ended plan that focuses on environmental, social, and governance (ESG) issues. By actively managing assets across a wide range of companies that follow ESG guidelines, this fund seeks to provide investors with opportunities for long-term capital gain. The Fund strives to achieve its goals by aligning with its Responsible Investment Policy and using ESG assessments of member firms to minimize risks resulting from ESG factors and provide investors

with risk-adjusted returns. The fund uses negative screening, ESG integration, and best-in-class methods to choose its stocks.

Asset Allocation & Portfolio Composition

- 1. The asset allocation of the fund comprises around 97.96% in equities, 0.0% in debts and 2.04% in cash & cash equivalents.
- 2. While the top 10 equity holdings constitute around 51.38% of the assets, the top 3 sectors constitute around 59.74% of the assets.
- 3. The fund largely follows a Growth-oriented style of investing and invests across market capitalisations around 0.0% in giant & large-cap companies, 0.0% in mid-cap and 0.0% in small-cap companies.

| EQUITY & EQUITY RELATED | Quantity | Market value (Rs. in Lakhs) | % to AUM | |
|------------------------------------|---------------------------------------|-----------------------------|----------|--|
| HDFC Bank Ltd. | | 45,079.76 | | |
| | 26,37,400 | | 8.14 | |
| Infosys Ltd. | 25,16,000 | 38,819.36 | 7.01 | |
| Tata Consultancy Services Ltd. | 9,16,034 | 34,748.83 | 6.28 | |
| ICICI Bank Ltd. | 29,15,000 | 29,050.89 | 5.25 | |
| Larsen & Toubro Ltd. | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 28,797.16 | | |
| Earsen & Tourio Etc. | 8,16,709 | 20,777.10 | 5.20 | |
| Axis Bank Ltd. | 23,90,000 | 26,344.97 | 4.76 | |
| Ultratech Cement Ltd. | 2,29,000 | 24,051.98 | 4.34 | |
| TVS Motor Company Ltd. | - 1 A San | 20,865.74 | 1 1 | |
| | 10,30,000 | | 3.77 | |
| ABB India Ltd. | 4,00,000 | 18,699.40 | 3.38 | |
| State Bank of India | 28,00,000 | 17,977.40 | 3.25 | |
| Maruti Suzuki India Ltd. | 1,47,000 | 15,144.45 | 2.74 | |
| Hindustan Unilever Ltd. | 30° W | 14,385.33 | | |
| **** | 5,40,000 | | 2.60 | |
| Cholamandalam Investment & Finance | W | 13,857.80 | | |
| Co. Ltd. | 11,00,000 | Bana. | 2.50 | |
| Cummins India Ltd. | 7,00,000 | 13,747.65 | 2.48 | |
| Titan Company Ltd. | 3,60,000 | 13,231.62 | 2.39 | |
| Hindalco Industries Ltd. | 19,02,000 | 11,694.45 | 2.11 | |
| Sona Blw Precision Forgings Ltd. | 18,00,000 | 11,601.00 | 2.10 | |
| Page Industries Ltd. | 29,600 | 11,399.77 | 2.06 | |
| HDFC Asset Management Co. Ltd. | 3,50,000 | 11,217.50 | 2.03 | |
| L&T Technology Services Ltd. | 2,00,000 | 10,509.90 | 1.90 | |
| Britannia Industries Ltd. | 1,95,000 | 10,409.98 | 1.88 | |
| Kotak Mahindra Bank Ltd. | 5,15,000 | 9,826.72 | 1.77 | |
| Divi's Laboratories Ltd. | 2,50,000 | 9,759.75 | 1.76 | |
| Timken India Ltd. | 2,90,000 | 9,430.66 | 1.70 | |

| Coforge Ltd. | | 9,411.60 | |
|--|--|-------------|--------|
| | 1,50,000 | | 1.70 |
| Brigade Enterprises Ltd. | | 8,967.50 | |
| | 10,00,000 | | 1.62 |
| Eicher Motors Ltd. | | 8,858.80 | |
| | 2,13,800 | | 1.60 |
| FSN E-Commerce Ventures Ltd. | | 7,840.85 | |
| | 45,07,530 | | 1.42 |
| Jubilant Foodworks Ltd. | | 7,663.52 | |
| | 13,56,255 | | 1.38 |
| Cipla Ltd. | | 7,477.80 | |
| | 6,00,000 | | 1.35 |
| Tech Mahindra Ltd. | 5 00 000 | 6,363.25 | |
| DATE A LA | 5,00,000 | 5.640.55 | 1.15 |
| PVR Inox Ltd. | 2 40 000 | 5,640.77 | 1.02 |
| | 3,40,000 | 1 10 1 20 | 1.02 |
| Schaeffler India Ltd. | 1 40 000 | 4,484.20 | 0.01 |
| A 1 1 T 1 1T,1 | 1,40,000 | 2 (21 00 | 0.81 |
| Ashok Leyland Ltd. | 20,00,000 | 3,631.00 | 0.66 |
| Credit Access Grameen Ltd. | 20,00,000 | 1.705.60 | 0.66 |
| Credit Access Grameen Ltd. | 1,08,084 | 1,725.62 | 0.31 |
| Microsoft Corporation | 1,00,004 | 15,627.55 | 0.31 |
| Microsoft Corporation | 50,000 | 13,027.33 | 2.82 |
| TREPS | 30,000 | 15,573.07 | 2.02 |
| IKEFS | A 1888 | 13,373.07 | 2.81 |
| Margin amount for Derivative positions | - Phys. (2) | 4,000.00 | ۷.01 |
| wargin amount for Derivative positions | The state of the s | 4,000.00 | 0.72 |
| Net Receivable / Payable | | (4,222.34) | 0.72 |
| 1 to Teodivation / Tayable | | (1,222.31) | (0.77) |
| Total AUM | / | 5,53,695.26 | 100.00 |
| 10.0011101/1 | | 0,00,000.20 | 100.00 |

| Compounded | 1 Year | 3 Years | 5 Years | Since | Standard | Beta |
|-------------------|--------|---------|---------|-----------|-----------|------|
| Annualized Growth | | | | inception | Deviation | |
| Rate Performance | | | | | CB, | |
| SBI Magnum Equity | 24.72% | 16.66% | 15.64% | 14.53% | 12.82% | 0.87 |
| ESG Fund | 0.0 | 10.30 | | | p. | |

NIFTY 100 ESG Index- A Glimpse

The NIFTY 100 ESG Index aims to depict the performance of the NIFTY 100 index companies based on Environmental, Social, and Governance (ESG) risk scores. The weight of each component in the index is skewed based on the ESG risk score assigned to the company; that is, the modified ESG risk score of the company and free-float market capitalization is used to calculate each constituent's weight. Launched on March 27, 2018, the NIFTY 100 ESG Index has an April 01, 2011 base date and a base value of 1000. The index is updated every six months and is computed in real-time. The index can be used for many things, such as benchmarking and index development. Based only on free-float market capitalization, each index component is capped at a lower of 8% or five times the weight of the stock in the index. An index's sector cap exists.

Sector-wise representation in the NIFTY 100 ESG Index

| Sector | Weight(%) |
|--------------------------------|-----------|
| Financial Services | 32.65 |
| Information Technology | 17.81 |
| Automobile and Auto Components | 8.43 |
| Fast Moving Consumer Goods | 8.12 |
| Oil, Gas & Consumable Fuels | 5.26 |
| Consumer Durables | 4.74 |
| Healthcare | 4.34 |
| Metals & Mining | 2.63 |
| Telecommunication | 2.53 |
| Consumer Services | 2.46 |
| Power | 2.42 |
| Construction Materials | 2.38 |
| Services | 1.95 |
| Construction | 1.89 |
| Chemicals | 1.35 |
| Capital Goods | 0.61 |
| Realty | 0.43 |

| Index Returns (%) | QTD | YTD | 1 Year | 5 Years | Since Inception |
|-------------------|-------|-------|--------|---------|--------------------|
| Price Return | 12.73 | 22.16 | 22.16 | 15.59 | 11.91 |
| Total Return | 12.98 | 23.36 | 23.36 | 16.93 | 13.42 |



NIFTY 100 ESG Index Performance (From 01st January 2019 to 29th December 23)

Data Examination and Result

H0 (a): There is no significant difference in the mean of SBI magnum ESG equity funds' NAV in the last five years.

| Descriptive Statistics | | | | | | | | | | |
|----------------------------|-----------|--------|--------|-------|------------|----------|-------|--------|--|--|
| | N | Mean | Std. | Std. | 95% Cor | nfidence | Minim | Maxi | | |
| | | | Deviat | Error | Interval f | for Mean | um | mum | | |
| | | | ion | | Lower | Upper | | | | |
| | | | | | Bound | Bound | | | | |
| SBI Magnum Equity ESG | 1231 | 43.41 | 9.750 | .277 | 42.86 | 43.95 | 22.90 | 63.97 | | |
| Fund - Regular Plan - IDCW | | | | | | | | | | |
| SBI Magnum Equity ESG | 1231 | 138.80 | 31.17 | .888 | 137.05 | 140.54 | 73.25 | 204.55 | | |
| Fund - Regular Plan-Growth | | | | | | | | | | |
| SBI Magnum Equity ESG | 1231 | 53.27 | 12.46 | .355 | 52.573 | 53.96 | 27.78 | 79.70 | | |
| Fund - Direct Plan - IDCW | A11 - 60- | | | | | | | | | |
| SBI Magnum Equity ESG | 1231 | 148.39 | 34.70 | .988 | 146.45 | 150.33 | 77.39 | 222.00 | | |
| Fund - Direct Plan-Growth | | 2000 | la. | | | | | | | |
| Total | 4924 | 95.97 | 53.84 | .767 | 94.46 | 97.47 | 22.90 | 222.00 | | |

| | == | 2 | | Test of H | omogeneity of Variances | | | |
|---|-----------|---|-----|-----------|-------------------------|------|---------|--|
| Ī | Levene | | df1 | | df2 | Sig. | (B | |
| ŀ | Statistic | | | | | | 1 7 | |
| | 1405.998 | - | 3 | | 4920 | .000 | - Aller | |

| 253 | AN | ANOVA | | | | |
|--|----------------|-------|--|---------|------|--|
| The state of the s | Sum of Squares | d.f. | Mean Square | Ĵ F | Sig. | |
| Between Groups | 11285722.71 | 3 | 3761907.57 | 6202.37 | .000 | |
| Within Groups | 2984117.02 | 4920 | 606.53 | 8000a | | |
| Total | 14269839.73 | 4923 | The state of the s | | | |

Inference:

At a 95% confidence level, the test's p-value of 0.000 indicates that it is less than 0.005. Determining that there are statistically significant differences in the mean between the SBI magnum ESG equities funds means that the null hypothesis is rejected. A review of the NAV for the last five years reveals a significant variation in the performance of the funds. It is not inferred that this result follows from a cause. The cause of the variance in the SBI Magnum ESG equity fund mean has to be investigated further.

H0 (b): There is no significant impact of SBI magnum ESG equity funds on the NIFTY 100 ESG index.

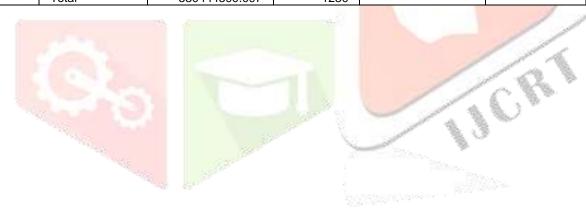
| | Correlation Table | | | | | | | | | | | |
|------------------------|---------------------|------------------------|-------------------------------------|--|-------------------------------------|---------------------------------------|--|--|--|--|--|--|
| | | NIFTY 100 ESG Index | ESG Fund - Regular Plan- IDCW | ESG Fund - Regular Plan- Growth | ESG Fund - Direct Plan - IDCW | Equity ESG Fund - Direct Plan- Growth | | | | | | |
| Pearson Correlation | NIFTY 100 ESG Index | 1.000 | .987 | .987 | .986 | .986 | | | | | | |
| Sig. (1-tailed) | NIFTY 100 ESG Index | .000 | .000 | .000 | .000 | .000 | | | | | | |

Model Summary

| Model | R | R Square | Adjusted R | Std. Error of | Change Statistics | | | | | |
|-------|-------|----------|------------|---------------|-------------------|-----------|-----|------|--------|--|
| | | | Square | the Estimate | R Square | F Change | df1 | df2 | Sig. F | |
| | | | | | Change | | | | Change | |
| 1 | .988ª | .977 | .977 | 99.4212540 | .977 | 26217.908 | 2 | 1228 | .000 | |

- a. Predictors: (Constant), Equity ESG Fund Direct Plan Growth, ESG Fund Regular Plan Growth
- b. Dependent Variable: NIFTY 100 ESG Index

| | ANOVA ^a | | | | | | | | | | |
|-------|--------------------|----------------|------|---------------|-----------|------|--|--|--|--|--|
| Model | | Sum of Squares | df | Mean Square | F | Sig. | | | | | |
| 1 | Regression | 518306318.803 | 2 | 259153159.401 | 26217.908 | .000 | | | | | |
| | Residual | 12138271.294 | 1228 | 9884.586 | | | | | | | |
| | Total | 530444590 097 | 1230 | | | | | | | | |



| | Coefficients | | | | | | | | | | | | |
|----|---------------------------------------|--------------------------------|---------------|----------------------------------|---------|------|------------------------------------|----------------|----------------|---------|------|-------------------------|---------|
| Мо | del | Unstandardized Coefficients | | Standardize d Coefficients | t | Sig. | 95.0% Confidence Interval for B | | Correlations | | | Collinearity Statistics | |
| | | В | Std. Error | Beta | Was no | | Lower Bound | Upper Bound | Zero- order | Partial | Part | Toleran ce | VIF |
| 1 | (Constant) | -280.151 | 29.08 | | -9.634 | .000 | -337.204 | -223.099 | | | | | |
| | ESG Fund - Regular Plan- Growth | 72.725 | 4.779 | 3. <mark>452</mark> | 15.218 | .000 | 63.350 | 82.101 | .987 | .398 | .066 | .000 | 2762.02 |
| | Equity ESG Fund - Direct Plan-Growth | -46.664 | 4.294 | -2. <mark>466</mark> | -10.868 | .000 | -55.088 | -38.240 | .986 | 296 | 047 | .000 | 2762.02 |

Predictors in this Model

Dependent Variable (Y)= NIFTY 100 ESG Index

Independent Variables: X1= ESG Fund - Regular Plan-Growth X2= ESG Fund - Direct Plan-Growth

[Y = -280.151 + 72.725 X1 - 46.664 X2]

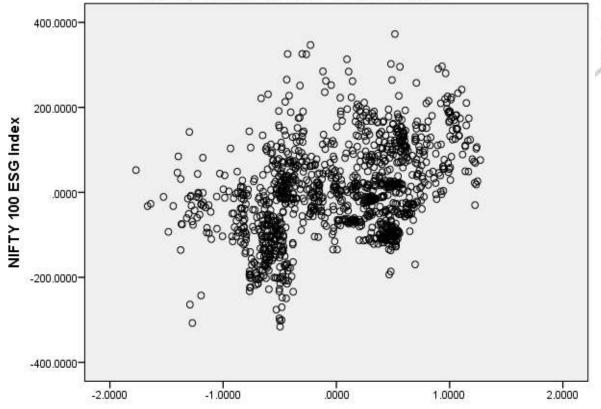
| Excluded Variables | | | | | | | | |
|--------------------|----------------------------------|---------|--------|------|-------------|-------------------------|---------------|------------|
| Model | | Beta In | t t | Sig. | Partial | Collinearity Statistics | | |
| | | | | | Correlation | Tolerance | VIF | Minimum |
| | | | | | | | | Tolerance |
| 1 | ESG Fund - Regular Plan- IDCW | -50.426 | 484 | .628 | 014 | 1.719E-009 | 581657481.134 | 1.719E-009 |
| | ESG Fund - Direct Plan - IDCW | 979.625 | 25.210 | .000 | .584 | 8.137E-009 | 122901694.895 | 8.125E-009 |

| | | | Collinearity Diag | nostics | | |
|-----------|------------------|---------------------|-------------------|----------------------|---------------|---------------|
| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions | | |
| | | | | (Constant) | ESG Fund - | Equity ESG |
| | | | | | Regular Plan- | Fund - Direct |
| | | | | | Growth | Plan-Growth |
| 1 | 1 | 2.966 | 1.000 | .00 | .00 | .00 |
| | 2 | .034 | 9.387 | .19 | .00 | .00 |
| | 3 | 9.013E-006 | 573.681 | .81 | 1.00 | 1.00 |
| a. Depend | dent Variable: N | IIFTY 100 ESG Index | | | | |

| Residuals Statistics ^a | | | | | | | |
|-----------------------------------|--------------|-------------|-------------|----------------|------|--|--|
| | Minimum | Maximum | Mean | Std. Deviation | N | | |
| Predicted Value | 1435.730469 | 4236.059570 | 2889.753347 | 649.1434749 | 1231 | | |
| Residual | -279.8129883 | 363.3244629 | 0E-7 | 99.3403908 | 1231 | | |
| Std. Predicted Value | -2.240 | 2.074 | .000 | 1.000 | 1231 | | |
| Std. Residual | -2.814 | 3.654 | .000 | .999 | 1231 | | |

Partial Regression Plot

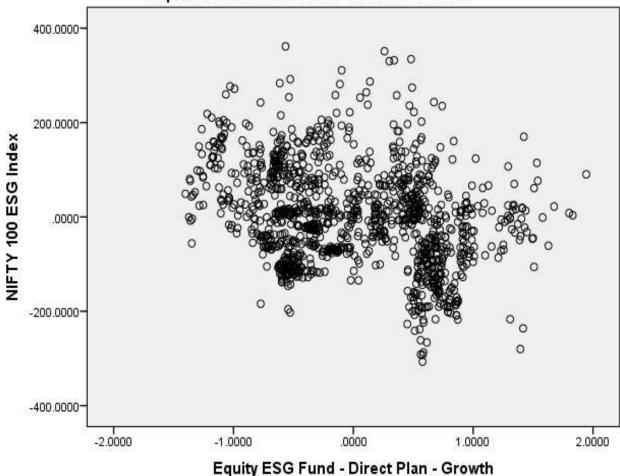
Dependent Variable: NIFTY 100 ESG Index



ESG Fund - Regular Plan - Growth

Partial Regression Plot

Dependent Variable: NIFTY 100 ESG Index



Inference

In this model, the value of R square is very high; which is 0.977. It shows a better-fit model. Hence, the proportion of variance in the dependent variable is highly explained by the independent variables. They are highly correlated. In the ANOVA table, the p-value is 0.000 which is less than 0.005. It means that the overall model is statistically significant.

The unstandardized Regression Coefficient of the SBI Equity ESG Fund - Regular Plan- Growth & NIFTY 100 ESG index is 72.725. it indicates a positive relationship between these variables. The p-value for these variables is 0.000 which is less than 0.005. It indicates that There is a significant impact of SBI Equity ESG Fund - Regular Plan- Growth on the NIFTY 100 ESG index. The unstandardized Regression coefficient of SBI Equity ESG Fund - Direct Plan-Growth & NIFTY 100 ESG index is -46.664. This implies a negative association between these variables. The p-value for these variables is 0.000 which is less than 0.005. It indicates that There is a significant impact of SBI Equity ESG Fund -Direct Plan-Growth on NIFTY 100 ESG index.

Equity ESG Fund - Regular Plan – IDCW & Equity ESG Fund - Direct Plan – IDCW, both are having Multicollinearity issue. It means that these variables in a regression model are highly correlated, making it difficult to isolate the individual effects of each variable. it implies that the model is simplifying by removing

redundant information. The remaining variables are expected to provide a more stable estimation of their individual effects on the dependent variable. The tolerance level of Equity ESG Fund - Regular Plan – IDCW is 1.719E-009. That is exceptionally low, signalling a critical issue of multicollinearity. Addressing this issue is essential for ensuring the reliability and interpretability of the multiple regression model. The tolerance level of Equity ESG Fund - Direct Plan – IDCW is 8.137E-009. It means that there is a critical issue of multicollinearity.

The eigenvalue of 2.966 for Dimension 1 suggests that there is a relatively high amount of variability in the data along this dimension. This dimension captures a substantial portion of the total variance in the dataset.

The eigenvalue of 0.034 for Dimension 2 indicates much less variability along this dimension compared to Dimension 1. It represents a lower amount of information or variance. The eigenvalue of 0.000009013 for Dimension 3 is very close to zero. In the context of eigenvalues, a very small eigenvalue suggests that this dimension contributes very little to the overall variance. It might indicate that this dimension is essentially negligible and may be a result of numerical precision or rounding.

The mean of the residuals is very close to 0. It indicates that the model is doing a good job of predicting the observed values of the dependent variable.

In both partial regression plots, all points are scattered without a clear pattern, which indicates that the relationship is more complex, and additional variables may be needed to capture the true nature of the association.

Conclusion

This approach to investing combines financial considerations with environmental, social, and governance (ESG) elements to impact investment selection and management. The future of ESG (Environmental, Social, and Governance) funds in India looked promising, with several factors indicating increased interest and growth. However, it's essential to recognize the investment landscape; but there are challenges, such as greenwashing, which makes it hard to assess the actual impact of ESG factors on financial performance. The mutual fund companies need to step up and be more responsible for the sake of the future.

In this context, this research paper firstly attempted to find out significant difference in the mean of SBI magnum ESG equity funds' NAV in the last five years to determine whether the mean performance of various SBI ESG is statistically similar or not. The NAV of funds is analysed by using One Way ANOVA test. It is found after the analysis that there is statistically significant difference in the mean of SBI magnum ESG equity funds' NAV at 5% level of significance. Hence, it is recommended at the end that the investors can choose any of the funds with their investment goal in view of fund NAV. If the investment goal is to get regular periodical income, they can invest in IDCW schemes. These schemes provide steady income as dividend payout. If the investment goal is to get accumulated income, they can invest in growth schemes. These schemes provide a compounding reinvestment effect; which can lead to significant long-term returns.

this research paper mainly attempted to evaluate the significant impact of SBI magnum ESG equity funds on NIFTY 100 ESG index. Whether the ESG equity funds within SBI Mutual Fund are efficiently

impacting the Nifty 100 ESG index. The NAV of funds is analysed by using multiple linear regression. It is found after the analysis that the value of R square is very high; which is 0.977. It shows a better-fit model. Hence, the proportion of variance in the dependent variable is highly explained by the independent variables. There is a significant impact of Independent Variables- SBI ESG Fund - Regular Plan-Growth & SBI ESG Fund - Direct Plan-Growth on NIFTY 100 ESG Index. SBI ESG Fund - Regular Plan- IDCW & SBI ESG Fund - Direct Plan- IDCW, both indicate the complex relationship and additional variables may be needed to capture the true nature of the association to know the impact on NIFTY 100 ESG Index.

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