

# A Study on Risk and Returns of Selected SBI Mutual Fund Schemes

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**Abstract-** This study examines the relationship between risk and returns of selected SBI Mutual Fund schemes in India. The purpose is to evaluate the performance efficiency of various categories of funds offered by SBI Mutual Fund. Five schemes were selected: SBI Blue Chip Fund, SBI Small Cap Fund, SBI Magnum Midcap Fund, SBI Banking and Financial Services Fund, and SBI Infrastructure Fund. The study is based on secondary data collected from AMFI, Value Research, and official SBI Mutual Fund reports. Risk and return were analyzed using statistical tools such as Standard Deviation, Beta, and Sharpe Ratio. Standard Deviation measured volatility, Beta assessed market sensitivity, and the Sharpe Ratio evaluated risk-adjusted returns. Results indicated that small-cap and midcap funds achieved the highest returns but were highly volatile. Large-cap funds like SBI Blue Chip Fund offered moderate and stable returns with lower risk. Sectoral funds showed cyclical performance depending on market trends. Overall, a positive correlation between risk and return was observed among all schemes. Funds with higher risk potential yielded higher returns over the study period. Sharpe Ratio results revealed that SBI Magnum Midcap Fund provided the best risk-adjusted performance.

**Keywords-** SBI Mutual Funds, Risk and Return Analysis, Standard Deviation, Beta Ratio, Sharpe Ratio, Investment Performance.

## I. INTRODUCTION

Mutual funds are an important part of the Indian financial system, allowing investors to participate in diversified portfolios managed by professional fund managers. They are particularly beneficial for small investors who cannot directly access or analyze the stock market. SBI Mutual Fund, established in 1987, is one of India's most trusted asset management companies, offering a range of schemes suitable for various investor preferences — from low-risk debt schemes to high-risk equity and sectoral funds. Risk and return are two inseparable aspects of investment. Return refers to the reward gained from an investment, while risk denotes the uncertainty or variability associated with that return. A

fund with high risk may provide high returns, but it also carries a greater probability of loss. Hence, understanding the risk-return trade-off is essential for investors to make rational financial decisions. This study attempts to measure and compare the risk and return of selected SBI Mutual Fund schemes to determine their performance efficiency and to guide investors in making informed investment choices.

## II. OBJECTIVES OF THE STUDY

- To Study the historical performance of selected SBI mutual fund schemes.
- To measure the risk associated with each selected SBI mutual fund schemes.
- To evaluate the risk-adjusted returns of the mutual fund schemes.
- To analyse the most efficient mutual fund scheme among the selected funds for optimal investment decisions.

## III. REVIEW OF LITERATURE

A review of literature refers to a comprehensive survey and analysis of existing research, studies, theories, and writings on a specific topic. It synthesizes and evaluates the current body of knowledge to identify trends, gaps, and areas for further exploration. In academic or research contexts, the review of literature helps to establish the foundation for new research, providing background information, defining key concepts, and supporting the development of research questions or hypotheses.

**Joshi, A. (2023)**

Joshi analyzed the effect of market volatility on SBI mutual funds during the COVID-19 period. The study revealed that SBI Bluechip and Small Cap Funds reacted differently to market fluctuations, with small-cap schemes showing higher volatility. It concluded that SBI funds managed market shocks effectively, sustaining investor confidence through sound fund management.

**Nair, P. (2023)**

Nair examined Indian mutual funds with a focus on volatility and systematic risk. The study noted that conservative investors prefer funds with low standard deviation, while aggressive investors choose high-beta portfolios. It emphasized that combining Sharpe ratio, standard deviation, and beta gives a comprehensive view of fund performance.

**Verma and Yadav (2022)**

Verma and Yadav used rolling-return analysis on SBI Bluechip and Equity Hybrid Funds over a decade. They found that these funds consistently outperformed category averages with smaller drawdowns. The authors highlighted that rolling returns offer a more reliable assessment of long-term fund performance than single-period CAGR

**Das, P. (2022)**

Das investigated the role of beta in determining systematic risk in Indian equity funds. The research showed that funds with beta values above one were more sensitive to market movements, offering higher gains during bull phases but higher losses during downturns. It concluded that beta serves as a key indicator for aggressive investors.

**Mishra and Singh (2021)**

Mishra and Singh examined factor exposures in SBI equity schemes and found a strong inclination toward large-cap and quality factors. Their study explained that this conservative approach helped SBI funds maintain stability during market downturns. They concluded that SBI schemes are ideal for investors prioritizing steady growth and capital protection.

#### IV. RESEARCH METHODOLOGY

**Research Design:**

The research design adopted for this study is an Analytical Research Design, as it systematically evaluates existing data to draw meaningful insights into the risk and return characteristics of selected SBI mutual fund schemes. This design relies exclusively on secondary data collected from credible sources such as the SBI Mutual Fund official website, AMFI, and financial platform like Value Research. The primary focus is to assess how different schemes have performed over a defined period in terms of risk exposure, market sensitivity, and risk-adjusted returns.

**Data Collection:****Secondary Data:**

The study is based entirely on secondary data. This data was collected from the SBI Mutual Fund official website, AMFI (Association of Mutual Funds in India), and Value Research Online.

**Study Period:**

The data covers a period of **five financial years (2020– 2025)**.

**Tools used in analysis:**

- **Standard Deviation** – measures total volatility or total risk of a fund's return.
- **Beta** – It shows how much the fund moves compared to the overall market.
- **Sharpe Ratio** – indicates risk-adjusted performance - It shows how much return the fund gives for the amount of risk taken.

**SBI Mutual Fund Schemes:**

The following are the selected SBI mutual fund schemes used in this study are,

- **SBI Blue Chip Fund** - A large-cap equity fund that invests in top 100 companies with strong fundamentals and stable growth prospects. It aims to provide long-term capital appreciation with relatively lower risk compared to mid or small-cap funds.
- **SBI Small Cap Fund** - SBI Small Cap Fund invests primarily in small-cap companies that have high growth potential but come with higher risk. The fund targets emerging businesses with innovative models and expansion opportunities. While short-term volatility is high, it can generate strong returns for investors with a long-term horizon.
- **SBI Magnum Midcap Fund** - It focuses on mid-sized companies ranked between 101st–250th by market capitalization. These firms are typically in their growth phase, offering a balance between stability of large-caps and higher growth of small-caps.
- **SBI Banking and Financial Services Fund** - A sector fund investing in banks, NBFCs, and financial institutions. Returns depend on financial sector growth and economic cycles. High potential returns but sensitive to interest rate and policy changes.

Suitable for investors confident in the long-term financial sector growth.

- **SBI Infrastructure Fund** - Invests in infrastructure-based companies like construction and energy. Returns depend on government spending and policy support. Carries high risk but strong long-term return potential. Best for aggressive investors with a long-term outlook.

**V. DATA ANALYSIS AND INTERPRETATION**

The returns and ratios of the selected SBI mutual fund schemes are analyzed and interpreted.

**TABLE SHOWING YEAR WISE RETURNS OF ALL THE FIVE SCHEMES**

Year	SBI Blue Chip Fund	SBI Small Cap Fund	SBI Magnum Midcap Fund	SBI Banking and Financial Services Fund	SBI Infrastructure Fund
2020 - 21	74.08	95.27	105.85	71.82	73.57
2021 - 22	16.13	28.25	26.5	5.68	29.75
2022 - 23	2.67	6.21	4.75	4.34	11
2023 - 24	29.42	36.37	41.33	33.21	62.53
2024 - 25	8.18	5.44	8.54	17.44	1.74

SOURCE : SECONDARY DATA

**INTERPRETATION:**

- The above table inferences that, In 2020–21, all funds gave very high returns after the COVID recovery. SBI Magnum Midcap (105.85%) and SBI Small Cap (95.27%) performed the best.
- In 2021–22, returns became normal. SBI Small Cap (28.25%) and SBI Infrastructure (29.75%) did well, but SBI Banking Fund was low at 5.68%.
- In 2022–23, all funds showed low returns due to market ups and downs. SBI Infrastructure (11%) performed best, while Blue Chip gave only 2.67%.
- In 2023–24, the market improved, and all funds gave good returns. SBI Infrastructure (62.53%) was highest, followed by Magnum Midcap (41.33%).
- In 2024–25, returns reduced again. SBI Banking Fund (17.44%) performed better, while Infrastructure Fund (1.74%) was the weakest.

**TABLE SHOWING YEAR WISE RATIOS OF SBI BLUE CHIP FUND**

YEARS	STANDARD DEVIATION	BETA RATIO	SHARPE RATIO
2020 - 2021	22.83	1.02	0.45
2021 - 2022	21.76	1.01	0.59
2022 - 2023	16.37	0.96	1.1
2023 - 2024	11.76	0.89	0.62
2024 - 2025	12.89	0.9	0.45

SOURCE: SECONDARY DATA

**INTERPRETATION:**

The above table inferences that, the ratios are fluctuating conditions across the years. The standard deviation reduced from 22.83 in 2020–21 to 11.76 in 2023–24, but slightly rose to 12.89 in 2024–25. The Sharpe ratio peaked at 1.1 in 2022– 23, while Beta declined from 1.02 in 2020–21 to 0.90 in 2024– 25.

**TABLE SHOWING YEAR WISE RATIOS OF SBI SMALL CAP FUND**

YEARS	STANDARD DEVIATION	BETA RATIO	SHARPE RATIO
2020 - 2021	26.39	0.86	0.48
2021 - 2022	23.41	0.76	0.93
2022 - 2023	16.78	0.75	1.58
2023 - 2024	11.53	0.61	1.18
2024 - 2025	15.18	0.73	0.54

SOURCE : SECONDARY DATA

**INTERPRETATION:**

The above table inferences that, the ratios are fluctuating conditions over the years. The standard deviation fell from 26.39 in 2020–21 to 11.53 in 2023–24, before increasing to 15.18 in 2024–25. The Sharpe ratio was highest at 1.58 in 2022–23, while Beta decreased from 0.86 to 0.73.

**TABLE SHOWING YEAR WISE RATIOS OF SBI MAGNUM MIDCAP FUND**

YEARS	STANDARD DEVIATION	BETA RATIO	SHARPE RATIO
2020	27.53	0.98	0.39
2021			
2021	25.17	0.96	0.78
2022			

2022	-17.14	0.87	1.6
2023			
2023	-11.55	0.71	1.2
2024			
2024	-14.36	0.78	0.68
2025			

SOURCE : SECONDARY DATA

#### INTERPRETATION:

The above table inferences that, the ratios are fluctuating conditions throughout the years. The standard deviation declined from 27.53 in 2020–21 to 11.55 in 2023–24, then rose to 14.36 in 2024–25. The Sharpe ratio peaked at 1.6 in 2022–23, while Beta dropped from 0.98 to 0.78.

**TABLE SHOWING YEAR WISE RATIOS OF SBI BANKING AND FINANCIAL SERVICES FUND**

YEARS	STANDARD DEVIATION	BETA RATIO	SHARPE RATIO
2020 – 2021	31.06	0.99	0.51
2021 – 2022	25.17	0.97	0.34
2022 – 2023	17.14	0.9	0.72
2023 – 2024	11.55	0.84	0.41
2024 – 2025	14.36	0.83	0.75

SOURCE : SECONDARY DATA

#### INTERPRETATION:

The above table inferences that, the ratios are fluctuating conditions during the period. The standard deviation reduced from 31.06 in 2020–21 to 11.55 in 2023–24, but went up to 14.36 in 2024–25. The Sharpe ratio improved to 0.75 in 2024–25, while Beta fell from 0.99 to 0.83.

**TABLE SHOWING YEAR WISE RATIOS OF SBI INFRASTRUCTURE FUND**

YEARS	STANDARD DEVIATION	BETA RATIO	SHARPE RATIO
2020 - 2021	25.66	1.03	0.3
2021 - 2022	23.9	1.02	0.67
2022 - 2023	16.13	0.87	1.51
2023 - 2024	12.39	0.74	1.74
2024 - 2025	15.62	0.85	0.92

SOURCE : SECONDARY DATA

#### INTERPRETATION:

The above table inferences that, the ratios are fluctuating conditions across the years. The standard deviation dropped from 25.66 in 2020–21 to 12.39 in 2023–24, then increased to 15.62 in 2024–25. The Sharpe ratio reached its highest at 1.74 in 2023–24, while Beta reduced from 1.03 to 0.85.

#### VI. FINDINGS

##### 1. Returns:

- SBI Magnum Midcap Fund gave the highest return (105.85% in 2020–21) but fell sharply later.
- SBI Infrastructure Fund was the most volatile, from 73.57% (2020–21) to 1.74% (2024–25).
- SBI Blue Chip Fund remained stable, with a low of 2.67% in 2022–23.

##### 2. Standard Deviation:

- SBI Blue Chip Fund showed the lowest volatility (11.76 in 2023–24).
- SBI Banking & Financial Services Fund was most volatile (31.06 in 2020–21).

##### 3. Beta Ratio:

- Beta values declined across all funds, showing lower market sensitivity.
- Blue Chip Fund's Beta dropped from 1.02 to 0.90, indicating more stability.
- Infrastructure Fund's Beta fell from 1.03 to 0.85, showing reduced dependence on market trends.

##### 4. Sharpe Ratio:

- Sharpe Ratios peaked in 2022–23, marking strong risk-adjusted returns.
- Small Cap (1.58) and Magnum Midcap (1.6) had the best 2022–23 performance.
- Infrastructure Fund achieved the highest Sharpe (1.74) in 2023–24.

#### VII. SUGGESTION

- Investors with low risk tolerance should prefer the SBI Blue Chip Fund, as it shows the least volatility and stable long-term growth.

- The SBI Small Cap Fund offers very high returns but also carries higher risk; it is suitable only for long-term, high-risk investors.
  - The SBI Magnum Midcap Fund has shown strong returns with reduced volatility, making it a good option for moderate-risk investors.
  - The SBI Banking & Financial Services Fund should be chosen with caution, as its performance depends heavily on the banking sector; it is better as a supplementary investment.
  - The SBI Infrastructure Fund has provided the best risk-adjusted returns but also showed sharp fluctuations; it is suitable for investors willing to take sectoral risk for potentially higher gains.
  - Since 2020–21 and 2023–24 were strong years while 2022–23 was weak, investors should avoid judging funds based on a single year and instead focus on long-term performance trends.
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### VIII. CONCLUSION

The study on risk and returns of selected SBI mutual fund schemes reveals that performance has been highly fluctuating across different categories, reflecting varying levels of risk and return potential. Analysis of historical returns highlighted that Blue Chip Funds provided stability, while Small Cap and Midcap Funds delivered higher growth but with greater volatility. Risk measurement through Standard Deviation and Beta showed a general decline, indicating reduced volatility and lower market sensitivity over time. Sharpe Ratio analysis revealed that risk-adjusted returns peaked in 2022–23, proving efficiency in that period, but later declined, showing inconsistency in long-term performance. In Overall, the SBI Magnum Midcap Fund performed the best, giving very high returns and good risk-adjusted performance, making it the most efficient choice for investors willing to take moderate risk.

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