

Risk and Return Analysis of Selected SBI Mutual Fund Schemes (2020–2025)

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CHAPTER I INTRODUCTION

1.1 Introduction

A functioning financial system assists economic growth through the efficient allocation of savings to profitable investments and effective use of monetary resources. In recent years, mutual funds have grown to become the largest and most commonly chosen investment avenues for both individuals and organizations, allowing the investors to get access to a diversified portfolio and earn a better return at a lower risk under the guidance of expert managers.

A mutual fund is a type of intermediary between investors, that pools in funds from a large group of investors, and invest in various securities like stocks, debt, money market instruments, etc., to obtain good returns with a lower risk using diversified portfolio management techniques and expert management.

The Indian Mutual Fund industry is among the most important and developing funds industry, driven by rising financial literacy, technological advancement and favorable regulatory environment. Strict measures are imposed by Securities and Exchange Board of India (SEBI) to supervise, regulate and promote mutual funds to ensure transparency and investors' interests.

In a range of asset management companies in India, SBI Mutual Fund is one of the biggest fund providers and is one of the most trusted fund houses in India. It has a wide variety of scheme which are suitable to different categories of investors according to varying risk appetite and investment objectives. Strong distribution reach and the well-known brand name of SBI have been other contributing factors for its market position and popularity.

Despite rising participation in mutual funds, the investors often face problems while assessing and comparing performance of different schemes. Investors assess mutual funds on return only, disregarding the associated risk. For making rational investment decisions, both risk and return are assessed simultaneously.

In this study, an attempt has been made to investigate risk-return of specific SBI Mutual Fund schemes during a specified period of time. Multiple statistical and financial techniques have been used to ascertain the return against the risk involved in various schemes and investors are given interpretation.

In India, mutual fund investment has more recently occupied a considerable position in investors' minds as it could render profitable return and diversify investment in the Indian capital market. However, picking out a proper mutual fund scheme has not always been an easy task as different schemes involve different levels of risk and return.

This paper attempts to determine risk and return measures of five selected SBI Mutual Funds taken from different categories. SBI Mutual Fund has been chosen as a prominent fund house in India with various offerings and a wide range of funds. The time period of this study extends from 2020 to 2025 as this time is considered due to volatile market condition followed by recovery post pandemic along with change in investment behaviors and related factors. This study tries to achieve insights to investment decisions by correlating risk and return.

1.2 Industry Overview

Over the last two decades, the Indian mutual fund segment has grown exponentially and stands as a key support for the financial ecosystem in India. Increased investor awareness, disposable income and expanded access to institutional finance have all fuelled this growth. More and more, investors looking to diversify their portfolios without losing their liquidity and under professional management are opting for mutual funds.

Assets Under Management (AUM) of the industry have increased sharply as per AMFI data indicating the growing participation of retail and institutional investors in the segment. Easy access to and the proliferation of digital services and smartphones have made it simple for investors to invest in various mutual fund offerings.

SIPs have emerged as one of the significant drivers of the growth of the mutual fund segment by enabling discipline in regular savings and making mutual fund investment accessible even for small investors while providing a steady source of inflows in uncertain markets.

SEBI's regulatory regime has enhanced investor protection and transparency through measures such as standardized scheme categorization, mandating disclosures and risk-labelling etc., which have significantly boosted investor confidence in the products.

Mutual funds in India are generally classified into the categories of equity funds, debt funds, hybrid funds and other specialized funds to cater to different investment goals and risk appetites. Equity funds offer higher potential

returns than debt funds while entail higher risk, whereas debt funds offer lower returns compared to equity funds but have lower risk.

Rising participation among young investors along with widespread acceptance of financial planning is also expected to spur further growth, as awareness initiatives like "Mutual Funds Sahi Hai" aim at enhancing investor understanding of long-term wealth creation in the segment.

Notwithstanding the strong growth trends, the sector remains vulnerable to market fluctuations, economic uncertainty and evolving investor sentiments that impact fund performance and highlight the need to scrutinize the performance of each scheme.

1.3 About SBI Mutual Fund

SBI Mutual Fund is the leading and one of the most trusted asset management companies in India. Started in 1987 and in existence since then, SBI Mutual Fund is a joint venture between State Bank of India, a leading financial service provider, and Amundi, a world-renowned asset management company. The company is renowned across India for its consistent performance, a wide variety of product options and extensive distribution network.

Various types of mutual funds plans are available within SBI Mutual Fund catering to the diverse needs and risk-appetite of the investors. The plans offered by SBI Mutual Fund are in forms of equity plans, debt plans, hybrid plans and exchange traded funds (ETFs). Each of these plans caters to a different set of investment needs and risk preferences.

SBI Mutual Fund has a country-wide presence across both urban and rural Indian areas in order to serve investors from every corner of the country. A substantial trust from the Indian investors is attributed to the tremendous strength of the brand name and the faith derived from State Bank of India; especially the focus on retail investors.

The considerable chunk of the total assets under management at country level are accounted for by SBI Mutual Fund. Steady growth has been achieved based on thorough research driven decisions, meticulous supervision of fund managers and sound risk management process.

1.4 Concept of Risk and Return

Risk and return are the basic principles of investment analysis. Returns can be understood as profits earned or loss sustained from the investment in over the particular time, or expressed in the percentage. It is reward that investors earn for placing their money at risk.

Risks, on the other hand, means uncertain outcomes on investment returns, in other words they indicate the chances that the return would differ from the expected ones. Higher risk means higher potential for earning returns and is

also known as risk-return trade off.

Investment in the Mutual Fund involves different types of risks such as the, market risk-arises as a result of fluctuation in market conditions, credit risk-possibility that borrowers will default on their borrowings, interest rate risk-invested in fixed-income securities (debt funds), liquidity risk- inability of the security to be turned into cash without any loss of value.

There are different statistical tools to measure the risks and returns, such as Standard Deviation which gives the measure of dispersion of returns, Beta which measures the volatility of a mutual fund return in the relation to market returns, Sharpe Ratio used to calculate risk-adjusted performance by relating risk with investment returns.

Relationship between risks and return is essential to analyse, in context of present study because the chosen mutual funds SBI Mutual funds have varied category with varied levels of risk. Analysing risk and return helps us understand the performances and suitability for investment purpose. Risk-adjusted performance comparison makes a relevant analysis and informed decision making for investment.

1.5 Problem Statement

In the present day, financial market is such a field where Mutual Fund has emerged as one of the favourable avenues for investors. However, with the growing popularity of the mutual fund schemes among investors, majority of the investors lack the skills for making an apt selection from various categories of the mutual fund's schemes. The vast array of mutual funds in market has created an awareness, yet due to a sheer increase in no of investment avenues it is proving to be confusing for the investor to make a judicious investment.

One of the major limitations observed among investors is lack of adequate understanding towards the concept of risk and return. Most investors go by the return of the scheme and ignore the risk factor related to it, thus taking ill decisions at times and during such adverse situations this also results in a heavy loss to the investors, especially when the market becomes volatile.

Also, the number of schemes offered under mutual funds in terms of equity, debt and hybrid category can prove to be confusing. Each asset management company such as SBI Mutual Fund offers a bunch of schemes for various risk appetite and objective, thereby it becomes very difficult for any investor to finalize the best possible choice.

Apart from this, it is observed that most investors base their decision on the basis of the historical performance of the scheme, which is not an indication of its future return as per financial literature. The mutual fund should be analysed as per risk adjusted returns.

Thus, a systematic analysis of certain SBI Mutual Fund schemes in relation to both the risk and return has been

carried out so as to find out which one is better performing in relative terms.

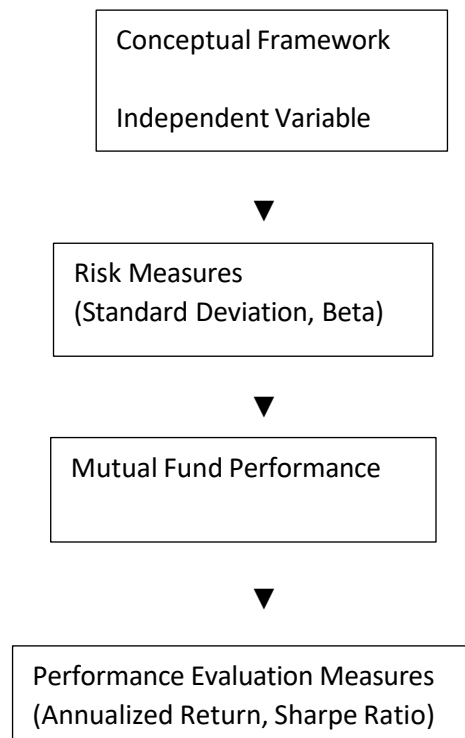
1.6 Objectives of the Study

The aim of the study is to measure the risk return performance of few SBI Mutual Funds scheme during the year 2020-2025. Thus, the objectives have been defined to measure the return performance, risk exposure, risk adjusted performance and the correlation between risk and return.

The following are the objectives of the study.

1. To measure the return performance of the selected SBI mutual fund schemes for a defined period of time, and by studying the historical return values the trend in performance may be measured.
2. To measures the risk profile of the selected SBI mutual fund scheme by using different methods like standard deviation and beta which will be calculated using some specific statistical tools and techniques, and this can help to know about the volatility of selected mutual funds scheme, and sensitivity of these mutual funds scheme against the movement in the capital market.
3. To compare the risk adjusted return among the selected SBI mutual fund schemes using risk adjusted measures like the Sharpe Ratio, which can help to judge the fund on an even keel by taking into account both the returns and risk involved.
4. To determine the most effective SBI mutual fund schemes by comparing them against each other based on their risk-return profile. An effective mutual fund scheme is one that delivers better returns on lower levels of risk and vice versa.
5. To determine the nature of relationship that existed among the chosen mutual funds scheme. That is by exploring the relationship between risk return the study will try to identify that, whether higher the risk results higher return.

1.7 Conceptual Framework of the Study



The conceptual framework of this study demonstrates the linkage of risk measures to the performance of the selected mutual fund schemes. Risk is depicted through measures of Standard Deviation, and Beta which represent risk on account of market fluctuations and market sensitivity respectively. These measures affect the performance of the schemes. The measures are used to determine how uncertain the return will be.

The performance measures for the chosen SBI Mutual Fund schemes used are, Annualized Return and Sharpe Ratio. While Annualized Return measures the returns generated on a scheme during a period, Sharpe Ratio indicates how efficient a scheme is on risk-adjusted returns. Hence, the study takes into consideration not only returns generated but also risk-adjusted returns generated.

The basis of the conceptual framework is the established theory of risk and return. The study looks into whether higher risk generated higher return and better risk-adjusted returns on the selected schemes during 2020-2025.

1.8 Linkage of Objectives, Variables and Analytical Tools

Research Objective	Variable(s)	Analytical Tool	Expected Outcome
Return performance analysis	Return	Annualized Return	Highest return scheme

Risk evaluation	Risk	SD, Beta	Risk level identification
Risk-return relationship	Risk and return	Correlation Analysis	Relationship determination
Scheme comparison	Risk and return	Sharpe Ratio	Best performing scheme

Investment suggestions	Risk and return findings	Interpretation	Investor recommendations
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1.9 Research Questions

In line with the research objectives, the following research questions have been posed.

1. What is the return obtained on the selected SBI Mutual Fund schemes during the period under study?
2. What is the risk in the selected SBI Mutual Fund schemes, how it varies with different fund categories?
3. Which SBI Mutual Fund scheme is the best if performance is judged on the basis of risk-adjusted parameters?
4. Is there any significant relationship between risk and return?
5. What is the comparative performance among different types of categories of Mutual Funds, such as Equity funds, hybrid fund, Mid cap fund etc.?
6. Which mutual fund is best for the investors on the basis of his risk attitude and his expectation towards return?

1.10 Scope of the Study

This study includes selected schemes from different fund categories like large-cap, mid-cap, small-cap, hybrid and sectoral fund categories to facilitate a better comparison. All the selected schemes are chosen based on their popularity and availability of the data and the schemes analysed are selected and limited for the period from 2020 to 2025. All schemes are from the SBI mutual funds in India.

Data was collected on these selected schemes from sources like the SBI Mutual Fund Factsheets (Official factsheet released by SBI mutual funds), AMFI fact sheet, other relevant finance books, reports and relevant index information. Some information that is needed to assess these funds like risk, annualized returns and other information is taken from different sources.

All of the above-mentioned findings are of selected schemes from SBI mutual funds only and limited for the period mentioned in the study and may not be true for all schemes and all future period.

1.11 Significance of the Study

This study is an important one because it examines the performance of select SBI Mutual Fund Schemes considering return generation and risk simultaneously. It uses the tools of risk-adjusted measures to compare the investment performance of various categories of Mutual Funds and gives a systematic evaluation of its efficiency in relation to return generation to investment risk in the years 2020-2025.

For investors, the study will provide an insight into the performance of the select SBI Mutual fund schemes and highlight the significance of risk-adjusted returns and enable them to make a suitable investment decision depending on their objectives and risk preferences.

For researchers and academicians, the study will add to the body of knowledge related to mutual fund performance analysis and use various statistical tools for analysis of mutual fund performance.

For Financial Advisor/Portfolio Manager, the study would be valuable in guiding its clients to select better investment alternatives based on the investment performance and risk factors of various mutual fund schemes.

Hence, the study would be useful for investors, researchers and financial professionals to analyse mutual fund performance with respect to returns and risk associated with it and take decisions accordingly.

1.12 Variables of the Study

The present study aims to analyse the relationship between risk and return in certain SBI Mutual Funds schemes. The variable risk is taken as the independent variable and it is measured in terms of Standard Deviation and Beta, and variable return as dependent variable measured in terms of Annualized Return. It is to be analyse if the variations in the level of risk have the potential to affect the return earned by the scheme. The Sharpe Ratio is taken as measure of risk adjusted return of the schemes.

Variable Type	Variable	Measurement Tool
Independent Variable	Risk	Standard Deviation, Beta
Dependent Variable	Return	Annualized Return

Performance Measure	Risk-Adjusted Performance	Sharpe Ratio
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Once these variables are determined, it becomes a systematic method to study the relation between risk and return and to analyse the performance and efficiency of the identified SBI Mutual Fund Schemes

1.13 Hypothesis of the Study

In this study, it is an attempt to analyse the relation between risk and return of selected SBI mutual fund schemes during the period from 2020-2025. With the above-mentioned objectives of the study, hypotheses were framed with an aim to check whether changing levels of risk effect the returns of the selected schemes significantly or not.

The hypotheses framed on the above said objectives of the study are:

H: (Null Hypothesis): There is no significant relationship between risk or return of the selected SBI mutual fund schemes. In other words, variations of risk do not significantly influence the returns.

H: (Alternative Hypothesis): There can be significant relationship between risk or return of selected SBI mutual fund schemes. In other words, changes of risk directly influence the returns.

The hypotheses testing would be conducted at later stage with suitable statistical techniques and tools. The results that come from hypothesis testing will serve to arrive at some important findings on the mutual fund schemes' performance.

Thus, formulation on hypothesis gives a precise direction to the research.

CHAPTER II LITERATURE REVIEW

2.1 Introduction to Literature Review

A present study involves reviewing some of previously conducted work related to performance of the mutual fund, risk and return relation & measuring techniques on performance. The study contributes in understanding the results, techniques adopted, their limitations.

In the field of finance and specifically in regard to the Mutual Fund research, literature review helps in analysing how the risk and return was examined in earlier works. Mutual Fund is one such instrument widely researched in the field of financial research and it has been assessed for performance on several occasions and on diverse conditions by lot of researchers using various financial and statistical tool. The researcher can find useful facts by looking at such studies with regard to investment behaviour, investment techniques and performance assessment on the fund.

The relation in both risk and return has a key part in analysing mutual fund, studies in this particular field analyse

risk and return behaviour by using several measures like standard deviation, beta, Sharpe ratio, Treynor ratio etc. Such study helps in giving idea about the methods being used for assessing fund performance.

The study is being conducted on analysing risk or return for some of the selected scheme of SBI mutual Fund, hence there is a review of the literature based on mutual fund performance, risk and return relation and investor behaviour. The study gives an ample understanding about how mutual funds are examined, on different occasions and circumstances.

It helps in defining the gap in the literature. Which is why the present study has been undertaken.

2.2 Review of Previous Studies

Study 1: Sharpe (1966)

A landmark study that examined performance of mutual funds was that carried by Sharpe (1966), where the notion of risk-adjusted return was proposed. The paper suggested that returns should not be assessed in terms of their size alone, but taking into account the risk to be taken. The Sharpe ratio generated in this research measures risk premium per unit of total risks. The result stated that there was no relationship to buying stocks for higher returns; it just meant that for each unit of risk the higher return given was sufficiently justified. This paper is considered to be the cornerstone of modern portfolio evaluation.

Importance: This supports the use of Sharpe ratio in evaluating SBI mutual fund schemes.

Study 2: Jensen (1968)

Jensen (1968) derived Jensen's Alpha, measure of how well mutual fund have performed better comparison with market expectations. In study, a long time period analysis of the mutual funds was carried out, concluding that the majority of funds did not consistently outperform the market on the risk-adjusted basis.

An analysis concluded that active fund management is not always superior to other approaches, emphasizing the need to benchmark funds properly.

Importance: Helps in understanding whether SBI funds generate excess returns.

Study 3: Tripathy (2006)

In order to understand the market time skills of Indian mutual fund manager, Tripathy (2006) conducted an empirical study. In this study he focused on finding if funds managers have the ability to predict markets movements and thus change their portfolio accordingly for maximum return. He statistically measured the returns over a given period for selected mutual fund schemes. The study concluded that no considerable market timing skills exist among the Indian mutual fund managers although some schemes have performed better than others because they differed in their investment strategies and portfolio composition.

The research also questioned on not trusting to ability of funds managers to predict market trend.

Importance: This study supports the idea that performance varies across schemes within the same fund house, making it important to analyse multiple SBI mutual fund schemes individually.

Study 4: Sai Kumari and Balaji (2018)

In 2018 Sai Kumari and Balaji performed an evidence-based study which analyses the returns of several SBI Mutual Funds equity schemes in a paper named "A Study on Analysis of Equity Schemes in SBI Mutual Funds". The specific SBI equity funds they tested are SBI Blue Chip Fund, SBI Magnum Equity Fund and SBI Magnum Midcap Fund by using some standard deviations, alpha, beta and Sharpe ratios. They used secondary data to

compare the returns of several of SBI equity schemes for 2017-18 period.

The conclusion states that some SBI equity funds were less risky and fluctuated less than some of others, and some SBI equity funds offered stable returns with good volatility. Therefore, an investor should select a mutual fund scheme according to their risk tolerance.

Importance: This study is important because it directly focuses on SBI Mutual Funds and explains the practical use of risk-return analysis tools for evaluating mutual fund performance.

Study 5: Tripathi and Japee (2020)

The study conducted by Tripathi & Japee, "Performance evaluation of selected equity mutual funds in India", analysed the performances of some Indian equity mutual funds in the year 2020. Their study looked into the performances of selected equity funds using different risk-adjusted performance measures such as beta, Sharpe ratio, Jensen's alpha and standard deviation. Data of large cap, mid-cap and small-cap equity fund schemes was procured from relevant AMCs and analysed through secondary sources.

According to the results of the study, some schemes provided decent returns even during uncertain conditions, however, some other schemes provided rather low returns, as the proportion of high-risk securities was predominantly higher in their portfolio. Nonetheless, investors should check the risk before making any investment decision.

Importance: This study supports the use of risk-adjusted performance measures for evaluating mutual fund schemes and helps in understanding the relationship between risk and return in equity mutual funds.

Study 6: Malhotra, Singh and Ramani (2024)

In the year 2024, Malhotra, Singh, and Ramani had undertaken the task of conducting research for the study titled Navigating Market Volatility: Risk and Return Insights from Indian Mutual Funds. The study focused on determining the behaviour of Indian mutual funds under different market scenarios, such as extreme market situations as during the COVID-19 pandemic. The risk-adjusted returns were determined by using various quantitative methods such as Sharpe ratio, Sortino ratio, Omega ratio, Carhart's four factor framework, etc.

The findings had revealed that during uncertain markets, Indian mutual funds provided steadier as well as better risk-adjusted performance when contrasted to indices. They further found that the managers possess decent amount of skill when selecting stocks, though show less ability in stock timing.

Importance: This study highlights the importance of evaluating mutual fund performance using advanced risk-return measures and supports the relevance of risk-adjusted analysis in changing market conditions.

Study 7: Fama & French (2010)

A large-scale study by Fama and French (2010) analysed whether mutual fund performance reflects skill or luck. They used an array of mutual funds and measured their performance over a period of time using a complex statistical model. The results showed that a very limited number of funds outperformed due to their skill, with the majority of funds' performance being attributable to luck. Investors should therefore measure funds' performance properly rather than depending on short-term figures.

Importance: Explains why detailed analysis is necessary.

Study 8: Mankari and Vanishree (2022)

The role of pandemic COVID-19 in individual investors of equity mutual funds of SBI was investigated by Mankari & Vanishree (2022). How individual investors are affecting by pandemic situation during the period in behaviour, perception towards risks and decision-making has been studied in this article. Data was gathered by using the structural questionnaire and also analysed by structural equation modelling (SEM) & regressions.

In this study the factors like the confidence, risk perception, satisfaction, fear and risk aversion impacted individual investors in their investment behaviour during pandemic period and conclude that market volatility effect in the investor's decisions and guidance with risk assessment became very much important. The present research shows that investors behaviour and risk perception is significant in condition of turbulence and also supports the importance of risk-return trade off in investment in equity mutual funds.

Importance: This supports the analysis of risk factors affecting investment decisions in SBI mutual fund schemes

Study 9: Jyotirmoy Koley (2025)

Jyotirmoy Koley (2025) carried out a performance analysis of chosen SBI Mutual funds in India from 2014-2024. He analysed five of the SBI mutual fund schemes using the metrics of annual returns, SIP returns, risk ratios, portfolio analysis, and NAV trends and evaluated the funds accordingly.

He found that the performance of SBI Long Term Equity fund was excellent and consistently good, the returns of SBI Contra fund were very high although quite volatile and all the analysed fund schemes possessed favourable risk profiles with majority of the schemes yielding excellent performance appraisal

Importance: This study supports the use of risk and return measures for evaluating the performance of SBI Mutual Fund schemes.

Study 10: Hanamanth N. Mustari (2026)

In the field of risk-return assessment of selected equity mutual funds in India, Hanamanth N. Mustari (2026) evaluated the selected fund schemes from 2021-2025. Risk adjusted measures: Sharpe ratio, Treynor ratio and Jensen's Alpha were calculated for several small-cap, mid-cap and large-cap equity mutual fund schemes by large-sized asset management companies while performing the evaluation.

Results revealed that selection of mutual fund schemes can be made best possible by analysing both risk and return, variations were found across the fund schemes regarding risk-adjusted results and study indicates that measures are able to demonstrate the efficiency more than analysing on the return alone leading investors for an investment strategy to be more prudential.

Importance: This supports the use of risk-adjusted performance measures such as Sharpe Ratio, Treynor Ratio, and Jensen's Alpha in evaluating mutual fund schemes.

2.3 Comparative Analysis of Previous Studies

Author(s)	Year	Methodology Used	Major Findings	Research Gap
Sharpe	1966	Sharpe Ratio Analysis	Risk-adjusted return is important in mutual fund evaluation	Did not focus on Indian mutual funds

Jensen	1968	Jensen Alpha Model	Many funds failed to consistently outperform the market	SBI Mutual Funds not analysed
Tripathy	2006	Mutual Fund Performance Evaluation	Performance varies across schemes	Limited fund-house analysis
Sai Kumari & Balaji	2018	Risk and Return Analysis	SBI schemes showed varying risk-return characteristics	Limited time period
Tripathi & Japee	2020	Performance Evaluation of Equity Funds	Risk and return should be evaluated together	No exclusive SBI focus
Malhotra et al.	2024	Risk-Return Analysis	Stable risk-adjusted returns observed	No SBI comparative study
Fama & French	2010	Fund Performance Analysis	Few funds consistently outperform benchmarks	Indian context missing
Mankari & Vanishree	2022	Questionnaire, Regression Analysis, SEM	Investor behaviour was influenced by risk perceptions during COVID-19	Did not evaluate SBI scheme performance
Jyotirmoy Koley	2025	Risk-Return Analysis	SBI funds showed varying risk-return performance	Limited comparative analysis of SBI schemes

Hanamanth Mustari	N.2026	Sharpe, Treynor & Jensen Models	Risk-adjusted measures improved fund evaluation	No exclusive SBI Mutual Fund focus
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2.4 Critical Analysis of Previous Studies

The literature review on the earlier studies suggested that performance of mutual fund is being judged by employing many risk-adjusted performance measures like Sharpe ratio, Jensen Alpha and some risk-return analysis approaches. Research by Sharpe (1966), Jensen (1968), Tripathy (2006), Mustari (2026) stressed the evaluation of risk as well as return while evaluating mutual fund performance. Similar conclusions are available in respect of SBI Mutual Fund schemes studies which have found differing performances in respect of various categories as also in different market scenarios. A study of literature findings concludes that in spite of many studies finding that risk-adjusted measures result in a better performance measurement, varying results were found according to the fund category and investment period and market scenario. There is also a variety in literature research where some studies look at the total performance of mutual fund and some study at the investor's behaviour/risk perception.

2.5 Research Gap

The above literature survey revealed that studies are abundant on topic mutual fund performance and risk-return profile and risk-adjusted performance. There are several research gaps which are analysed in the literature:

Firstly, while a few studies are done on the mutual fund in general and few on a selected few category equity funds, very few study have compared the categories of schemes of SBI Mutual Fund in single research.

Secondly, there is a gap in terms of time period due to market up and downs in previous studies and post developments. The period from 2020-2025 has recorded events of the global crisis, post crisis recovery, changing behaviour of investors and market volatility and fast-growing investments in mutual funds. That means, earlier findings of mutual funds would not be reflecting the current investment environment.

Thirdly, there is a gap in terms of methodology. In many of the earlier studies mutual fund performances is measured based only on returns or a limited risk-adjusted measure. However, this study takes in to consideration, the different measures for investment performance including annualize return and standard deviation, beta, Sharpe Ratio.

Fourthly, there are gap in terms of analysis. Research in to large cap, mid cap, small cap, hybrid and sectoral scheme of the same fund house under single research is rare. This sort of analysis is necessary to provide better risk & return and risk adjusted profile of different categories of investment under the similar condition of investment.

Fifthly, there is a gap in the terms of practicality. A comparison of Mutual Fund Schemes the same fund house belonging to different categories investors face problem while investing. Most of the past studies focus on the research on the industry level or on a selected few categories of schemes. Hence an investment decision needs to focus on the performance of the schemes on a specific category for the specific Mutual Fund House. For instance, investment various schemes of the SBI Mutual Fund needs compare categories like, large cap schemes of SBI, mid cap schemes of SBI, etc under same head or same brand of Mutual fund. Hence research on specific schemes of SBI Mutual Fund needs to focus for investors decision making.

The present study thus is an effort made to fill the gaps identified above including time period, methodology, analysis, and practicality gap in literature by carrying out a comparative risk return analysis of different accepted SBI Mutual Fund Schemes under a single study for a given time period 2020-2025. The selection of SBI Mutual Fund is done in consideration of its larger presence in Indian Mutual Fund market with various types of schemes and good investors' participation.

2.6 Summary of Literature Review

A look into earlier research indicates that Mutual Fund performance analysis involves assessment on risk and return components. Earlier research usually used Sharpe ratio and Jensen's Alpha, among other risk-adjusted tools to analyse the performance of Mutual Funds. Survey of literature reveals that mutual fund performance differ between schemes, categories and performance differs in different market environments, therefore an accurate and thorough analysis is important.

A look into literature review indicates that many factors contribute to a mutual fund's performance such as fund management practices, degree of diversification, market environment prevailing, and investor behaviour. After analysing in depth literature to establish the research gap, the research problem has to be studied.

Therefore, this research work examines risk and return of chosen SBI Mutual funds, and comparative analysis of risk and return is performed for the period of 2020-2025.

2.7 Implications of Literature Review

From a review of prior research, it appears that mutual fund performance needs to be analysed not only in terms of return but also risk. The discussion underlines why risk-adjusted measures- the Sharpe Ratio, Treynor Ratio and Jensen's Alpha- are important in assessing mutual fund efficiency. In addition, the research shows a number of factors that affect the performance of mutual funds, including diversification, overall market conditions, type of strategy followed and investor behaviour.

These observations, based on previous research, could be extremely relevant for investors, scholars and financial advisors, and also justify the current study on selected SBI Mutual Fund schemes during 2020-2025, analysing risk and return relationships between.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

This study intends to ascertain the risk and return consequences of few SBI Mutual Funds schemes for the period of 2020-2025. A number of statistical and finance measures namely annualised returns, standard deviation, beta and Sharpe ratio are employed to gauge the results. In order to do the analysis, it utilizes secondary data extracted from various reports including factsheets of SBI Mutual Funds, AMFI, balance sheet of companies, and other sources of authenticity. Since different mutual fund categories' funds are chosen to assess earnings potential, relative risk-taking ability of the funds, and risk-adjusted returns between different mutual funds. In this chapter the research plan, sources of data used, methods of selecting sample fund schemes, data analysis method, and evaluation measures to study returns of different fund schemes and analysis method performed are detailed in this study. This method adopts an approach in relation to the assessment of risk and return performance for a few selected SBI Mutual Fund schemes. In today's financial system mutual fund is one of the prominent investment instruments; performance of these schemes is assessed using specific procedures and statistical measures. A quantitative approach has been applied by using standard deviation, beta, and Sharpe ratio to assess relative risk and return linkages as widely used for measuring volatility, systematic risk and risk-adjusted performance for the selected SBI Mutual Funds schemes. The study heavily relies on secondary data collected from financial portals, company accounts, financial papers, AMFI publications and SBI Mutual Fund documents. The research plan is aimed at investigating the returns, risk, and the relationship between risk and return for various SBI Mutual Fund schemes for 2020-2025 with the selection of small group of selected schemes representing different categories. The general approach of the analysis has been structured on the principle of risk-return assessment of selected SBI Mutual Funds schemes with varying market scenarios employing statistical and past financial data to support the study.

3.2 Research Design

A research design, in simple terms is an overall strategy or plan of approach that one chooses to carry out the research. It involves setting up the framework in a systematized manner that will help the researcher to collect, analyse and interpret data and fulfil the purpose of the research study.

This design is a descriptive and an analytical one. Description here deals with mutual funds, risk and return and also SBI Mutual Funds schemes, whereas analysis involves comparison of chosen SBI Mutual Funds schemes on the basis of financial and statistical techniques.

The study is quantitative as the researcher is using actual numerical values in terms of NAV, risk and return. This chosen design fulfils the requirements as it helps in evaluating the selected SBI Mutual Funds schemes and compares them and also helps in identifying the risk-return performance of chosen SBI Mutual Funds schemes from 2020 to 2025.

3.3 Sources of Data

In this study the majority of data used are secondary data. Secondary data are those which are already collected and published by institutions, organizations and financial bodies for research and other purposes. In this context secondary data are suitable for this research study as it gives accurate and reliable financial data about the performance of the mutual fund scheme.

The data necessary for this research study has been collected from various sources such as the website of SBI Mutual fund, AMFI (Association of Mutual Funds of India), Annual reports, financial journals, research papers, magazines and financial web sites such as Money control and Economic Times. The data relates to Net Asset value (NAV), return, market performance and risk of the select Mutual Fund schemes.

The data collected has been used to analyse the risk and return performance of the select SBI Mutual Fund schemes during the period 2020-2025. With reliable and accurate data sources the research finding can have good validity.

In this research study monthly Net Asset Value (NAV) data and annualized return data for selected SBI Mutual Fund scheme were collected from SBI Mutual fund factsheets and others credible source. The data cover the study period 2020-2025. The data are used for return, standard deviation, beta and Sharpe Ratio calculations in order to analyse the selected schemes.

The sources that are used to collect data are readily available and they are regularly updated in order to make the data more relevant and thus the research would have good reliability and validity. Data collected from AMFI and the web site of SBI Mutual fund will ensure the authenticity of NAV values and information concerning the fund. Journal and research paper helps to add theoretical backbone and analytical inputs to the research study.

3.2.1 Data Collection Process

All data for the research is in secondary form. Secondary data was collected from the SBI Mutual Fund factsheets, annual reports, and from the website of the SBI Mutual Fund. All the performance measures such as the annualized return, standard deviation, beta and Sharpe ratio was collected from the respective scheme factsheets for the period of 2020-2025. Other information such as the index benchmark and risk-free rate was taken from AMFI and RBI sources respectively. All the collected data were aggregated and classified. All the data collected were analysed in the excel program to compare between the funds being considered.

The performance measures, which was used in the study is annualized return, standard deviation, beta and Sharpe ratio. All these measures are extracted from the respective SBI Mutual Fund factsheet. All these were compiled and compare between themselves to provide a risk-return performance measure for the selected mutual fund schemes.

3.4 Selection of Mutual Fund Schemes

Selection of mutual fund schemes:

It is an important part of research study as the whole analysis and results depend on schemes selected for study. In the present study schemes of SBI Mutual Fund have been selected for analysing the relationship between risk and return in different market situations.

The schemes selected for the study fall under the categories of large-cap, mid-cap, small-cap, hybrid, and sectoral funds. This will provide a broader spectrum of comparison between schemes. The selected schemes are well-known; investor favourite funds as compared to other funds because of their market performance and potential.

Selected schemes are of SBI Mutual Fund and they are as under:

1. SBI Large Cap Fund
2. SBI Midcap Fund
3. SBI Small Cap Fund
4. SBI Equity Hybrid Fund
5. SBI Banking and Financial Services Fund

SBI Mutual Fund is chosen as it is a largest as well as trusted Asset Management Company that provides a wide range of investment schemes. As the market has witnessed the trend with the past, the data is widely available in it and so that there is no such issue to provide the same for the purpose of study. It was chosen because of its investor's interest.

The selected funds are such that are well-liked and chosen among the investor in context of risk and return and hence selected for the purpose of study.

Selected scheme: The period chosen is from the year 2020 to 2025. The various tools used for the study are standard deviation, beta, and Sharpe ratio for measuring volatility, market sensitivity and risk-adjusted returns respectively.

The five schemes were chosen so as to see the different segments provided by the SBI Mutual Fund: large-cap, mid-cap, small-cap, balanced and sector fund with the help of Large Cap fund, Midcap fund, Small cap fund, Equity Hybrid fund, and Banking & Financial services fund respectively so as to bring a more accurate comparison of different risk and return level among funds.

3.1: Selected Mutual Fund Schemes and Rationale for Selection

The above schemes are of different type of mutual funds, and they have been selected so as to compare thoroughly, all the aspect of risks and returns of different investment styles.

Below are the chosen schemes along with their respective benchmark index and selection logic in table 3.1

Scheme	Category	Benchmark Index	Rationale for Selection
SBI Large Cap Fund	Large Cap	BSE 100 TRI	Represents large-cap segment and stable growth potential
SBI Midcap Fund	Mid Cap	Nifty Midcap 150 TRI	Represents medium-sized growth-oriented companies
SBI Small Cap Fund	Small Cap	BSE 250 Small cap TRI	Represents high-growth and high-risk segment
SBI Equity Hybrid Fund	Hybrid Fund	CRISIL Hybrid 35+65 Aggressive Index	Represents balanced risk-return investment option

SBI Banking & Financial Services Fund	Sectoral Fund	Nifty Financial Services TRI	Represents sector-specific investment performance
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Source: Compiled by the Researcher based on SBI Mutual Fund Factsheets

3.5 Period of the Study

The study period spans over 5 years from 2020 to 2025. The study has been selected over this period to analyse risk and return of selected SBI Mutual Fund Schemes during varying market scenarios. The economic and financial events during this period have a significant role to play and this has been considered a key feature. These have been noted in the section above; events include COVID-19 pandemic, post-COVID recovery, market uncertainty and changed investor behaviour. These have influenced the performance of mutual funds in a significant manner.

The period of 5 years has been selected as it can facilitate analysis of consistent returns, measure of risk and comparison between schemes of different types. The study has focused on contemporary data, to support the relevancy of the analysis and provide relevant data to guide investment decisions

3.6 Tools Used for Analysis

In this study the various statistical and financial tools has been applied to assess the risk-return performance of certain selected SBI Mutual Fund schemes. Tools for evaluating mutual fund performance are important in determining the relative volatility, market sensitivity and efficiency of certain mutual funds in earning return for risk taken. Use of adequate tool and techniques are expected to be helpful in a systematic and dependable assessment of mutual funds' performance.

The following tools were employed in the study:

1. Standard Deviation

This is a statistical measure used to assess how volatile or risky mutual fund returns are. This shows how much of a variation actually occurs in the funds returns from the average. A higher standard deviation means there is greater volatility/risk. A lower standard deviation indicates lower volatility/risk

The formula for standard deviation is:

$$\sigma = \frac{\sqrt{\sum (X - \bar{X})^2}}{N}$$

Where:

- X = Individual returns
- $\bar{X}$ = Mean return
- N = Number of observations

The most commonly used indicator in mutual fund analysis, to describe the overall risk associated with the investment is standard deviation. It gives the investors, an indication of the uniformity and regularity of returns from various schemes.

Mention value obtained from SBI Factsheet.

2. Beta

Beta measures systematic risk, representing how closely mutual fund scheme returns move with the market movements. It shows the degree to which returns on a mutual fund vary in relation to the overall market.

Beta 1 implies the scheme's returns are volatile in relation to the market, where beta 1 suggests that the returns are less volatile and $\beta=1$ indicates that the returns vary with the market.

The formula for beta is:

$$\beta = \frac{\text{Covariance}(R_i, R_m)}{\text{Variance}(R_m)}$$

Where:

- R_i = Return of the mutual fund
- R_m = Market return

The bet values were collected from SBI Mutual Fund factsheet and have been calculated with reference to respective benchmark indices. Beta helps the investor to access the market risk of the schemes and how volatile they are in the market.

3. Sharpe Ratio

Most analysts consider the Sharpe ratio the most appropriate measure of risk-adjusted performance of mutual fund plans. Sharpe ratio tells the additional return provided by fund plan per unit of total risk taken by fund plan. The higher the Sharpe ratio, better is the risk-adjusted performance since the fund plan provides better returns for the given level of risk.

The formula for Sharpe ratio is:

$$\text{Sharpe Ratio} = \frac{R_p - R_f}{\sigma_p}$$

Where:

- R_p = Return of the portfolio
- R_f = Risk-free return
- σ_p = Standard deviation of portfolio returns

The ratio of risk to return is the key consideration while comparing one mutual fund scheme with the other, Sharpe ratio aids an investor in distinguishing the better schemes to invest.

Sharpe ratio values were extracted directly from SBI Mutual Fund factsheets. This value is published by the fund house according to industry practices and assumptions on risk-free rate.

4. Comparative Analysis

To compare the returns, risk and consistency of few selected SBI Mutual Funds on a comparative basis in categories of Large-cap, mid-cap, small-cap, hybrid funds, sectoral funds and other equity diversified schemes and

to determine which among them gives better return on given risk.

Using comparative analysis, this study examines variations in performance of the given schemes and identifies the most risk-efficient among them.

5. Risk-Return Analysis

This section analysis risk and return achieved from different schemes which will discuss risk assumed and return obtained for selected schemes. It provides the analysis of relation of accepted risk with return obtained from investments of mutual funds. Combination analysis of risk and return allows to ascertain whether more risk is accompanied by more return and the performance of mutual funds scheme in different market conditions are reviewed. Furthermore, this allows investors to choose the funds according to individual's risk-taking ability and individual risk goals.

All above tools & techniques provide a systematized method of analysing performance of selected SBI Mutual Funds. Multiple tools & techniques ensure in providing comprehensive assessment of performance of the mutual funds. All these tools enable drawing significant inference and assessing the effectiveness and appropriateness of the selected mutual funds. Using these tools enable researcher conduct a proper and an objective study of mutual funds' performance. All these methods help in understanding strengths and weaknesses of various mutual funds schemes & thereby understand its behaviour under all market conditions and thereby helps in comparing different types of funds to make the research findings reliable. The tool chosen help a lot to reach objective of research.

3.5.1 Benchmark Index Used

While calculating the market-related performance of the identified mutual funds and determining the beta values, benchmark indices of the respective fund schemes were used. These include: - BSE 100 TRI, Nifty Midcap 150 TRI, BSE 250 Small cap Index TRI, CRISIL Hybrid 35+65 Aggressive Index and Nifty Financial Services TRI.

3.5.2 Risk-Free Rate Used

Sharpe Ratio value considered in the research study has been directly taken from the SBI Mutual Fund factsheets. Such ratios are directly provided by the fund house based on standard industry practice with correct risk-free rate. Commonly, Government security yield, Treasury bill yield given by Reserve Bank of India, etc. Are assumed to be risk-free rate.

3.5.3 Software Used for Analysis

Microsoft Excel has been used for data organization, calculations, tabulation, graphical presentation, and comparative analysis. The software helped in systematic processing and interpretation of the data used in the study.

Table 3.2: Variables, Analytical Tools and Data Sources

The following table summarizes the variables, analytical measures, and data sources used in the study for evaluating the performance of selected SBI Mutual Fund schemes.

Variable	Measure/Tool	Formula/Source	Data Source
Return	Annualized Return	SBI Factsheet	SBI Mutual Fund Factsheet
Risk	Standard Deviation	SBI Factsheet	SBI Mutual Fund Factsheet
Market Risk	Beta	SBI Factsheet	SBI Mutual Fund Factsheet

Risk-Adjusted Return	Sharpe Ratio	SBI Factsheet	SBI Mutual Fund Factsheet
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3.6 Limitations of the Study

The results obtained from this study should be interpreted by keeping in mind the following limitations.

1. In this study the interpretation is based purely on the secondary sources that were collected from the SBI Mutual fund fact sheets, annual report and journals. Therefore, the validity of the results is subject to the reliability and accuracy of the data collected.
2. A sample of 5 SBI mutual funds has been taken and not all mutual fund schemes offered in the mutual fund industry of India. Thus, generalization based on the results may not hold for all other schemes.
3. The period taken for the study was from 2020 to 2025. A change in economic or political scenarios might yield different results, as conditions in the market after this period could impact Mutual Funds in numerous ways.
4. For comparing the performance of different schemes, the study has used a set of indicators like, annualized return, standard deviation, beta and Sharpe ratio. More complicated statistical tools were not used for determining mutual fund performance.
5. Many external factors like inflation, interest rate, government policy, the economy and market factors could affect the performance of a Mutual Fund which are not under the control of the researcher.
6. No primary data has been collected as the researcher has had no direct contact with investors or fund managers and the entire work is based upon financial statements and records.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

In this chapter, the data regarding risk-return analysis for few of the SBI Mutual Fund schemes are studied and discussed. The study is based on the secondary data, which has been collected from the SBI Mutual fund fact sheets during the period from 2020-2025. Out of various schemes, five selected are 1) SBI Large cap fund 2) SBI midcap fund 3) SBI small cap fund 4) SBI Equity Hybrid fund 5) SBI Banking and Financial Services Fund. For evaluating the performance of the schemes annualized return, standard deviation, Beta and Sharpe ratio are applied. By comparing the returns of the above 5 schemes and by studying their characteristics (risk-return parameters) and evaluating these jointly, the study moves further for interpretation, hypothesis testing, conclusions and suggestions.

4.2 Comparative Return Analysis

Table 4.1: Comparative Annualized Return Performance of Selected SBI Mutual Fund Schemes

Schemes	1-Year Return (%)	3-Year Return (%)	5-Year Return (%)	Since Inception (%)
SBI Large Cap Fund	3.02	12.81	13.03	14.49
SBI Midcap Fund	4.93	16.71	17.31	18.36
SBI Small Cap Fund	6.36	14.96	16.40	22.54
SBI Equity Hybrid Fund	7.17	15.06	12.80	14.41
SBI Banking & Financial Services Fund	7.02	18.83	15.30	15.08

Source: SBI Mutual Fund Factsheets (April 2026)

Interpretation of Table 4.1

The above table shows the annualized returns on investment for the chosen SBI Mutual Fund schemes over various holding periods. The schemes displayed different behaviours across the investment horizon. The one-year returns indicate that the SBI Equity Hybrid Fund had the best performance during the period, delivering returns of 7.17% while the SBI Banking & Financial Services fund was slightly behind with 7.02%. However, the SBI Large Cap fund recorded the lowest one-year returns (3.02%).

On three year returns analysis, the SBI Banking & Financial Services fund performed the best (18.83%) against other funds which seems to imply that the banking and financial services industry has grown well in the last three years. This has also been backed by an impressive three-year return for the SBI Midcap fund (16.71%).

For the five year returns analysis, the SBI Midcap fund was best at 17.31% closely followed by SBI Small Cap Fund (16.40%). This demonstrates the investment potential of small cap and mid cap funds.

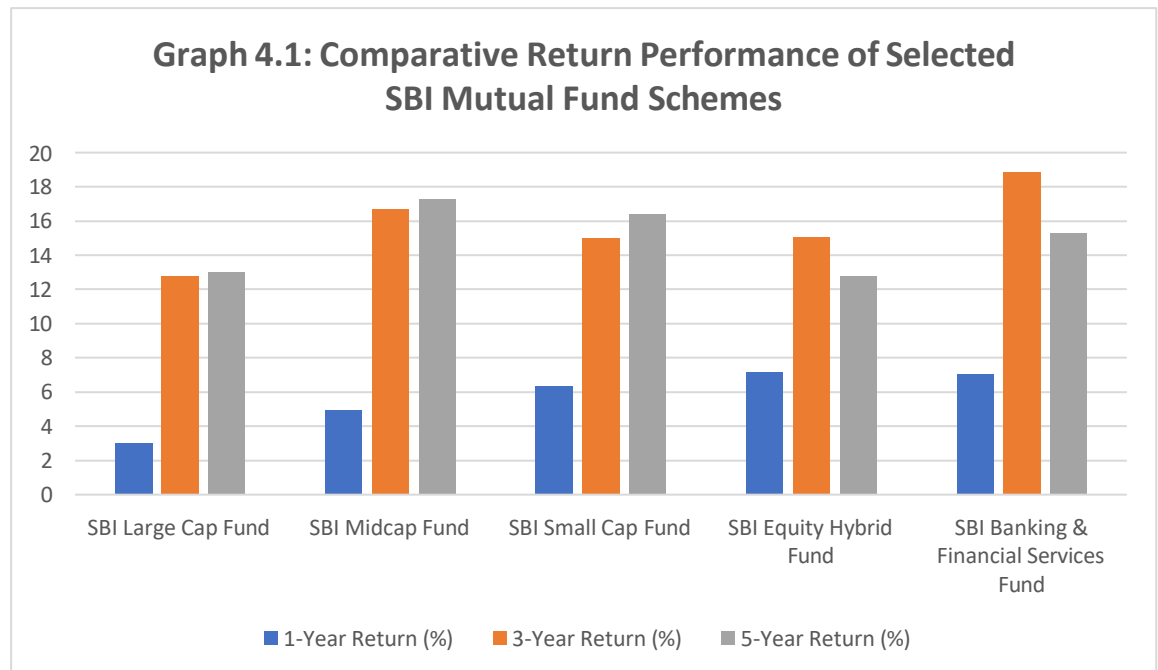
The since inception analysis showed that the SBI Small Cap Fund far surpassed the others, generating returns of 22.54% which underlines its excellent wealth creation capabilities. The SBI Midcap fund also performed well in this section delivering 18.36% returns.

Overall, the performance indicates that the choice of schemes depends on the investment strategy and the market. While Mid Cap and Small Cap funds have proven to be more successful in gaining significantly after the pandemic due to market growth, the consistent performance of the Equity Hybrid Fund implies benefits to investing across both equity and debt as they help in hedging risks. Investors have to analyse each of these parameters before choosing a fund to invest in instead of following return figures blindly.

It signifies that while investors looking to attain long term capital appreciation may benefit from investing in Mid-Cap and Small-Cap Funds, an investor who is risk-averse may find Hybrid Funds to be a more suitable option.

Graph 4.1: Comparative Return Performance of Selected SBI Mutual Fund Schemes

Comparative Return Analysis Selected SBI Mutual Fund schemes



Source: Compiled by the Researcher based on SBI Mutual Fund Factsheets (April 2026).

4.3 Comparative Risk Analysis

Table 4.2 Comparative Risk Measures of Selected SBI Mutual Fund Schemes

Schemes	Standard Deviation (%)	Beta	Sharpe Ratio
SBI Large Cap Fund	13.85	0.94	0.51
SBI Midcap Fund	16.30	0.85	0.66
SBI Small Cap Fund	17.16	0.75	0.54
SBI Equity Hybrid Fund	10.80	1.03	0.80
SBI Banking & Financial Services Fund	14.57	0.88	0.83

Source: SBI Mutual Fund Factsheets (April 2026)

Interpretation of Table 4.2

The table given below compares certain risk characteristics of some SBI mutual fund schemes by calculating standard deviation, beta, and Sharpe ratio; these are widely used to assess the mutual fund risk:

Standard deviation determines the volatility: It measures the variations in achieved returns. Among the selected

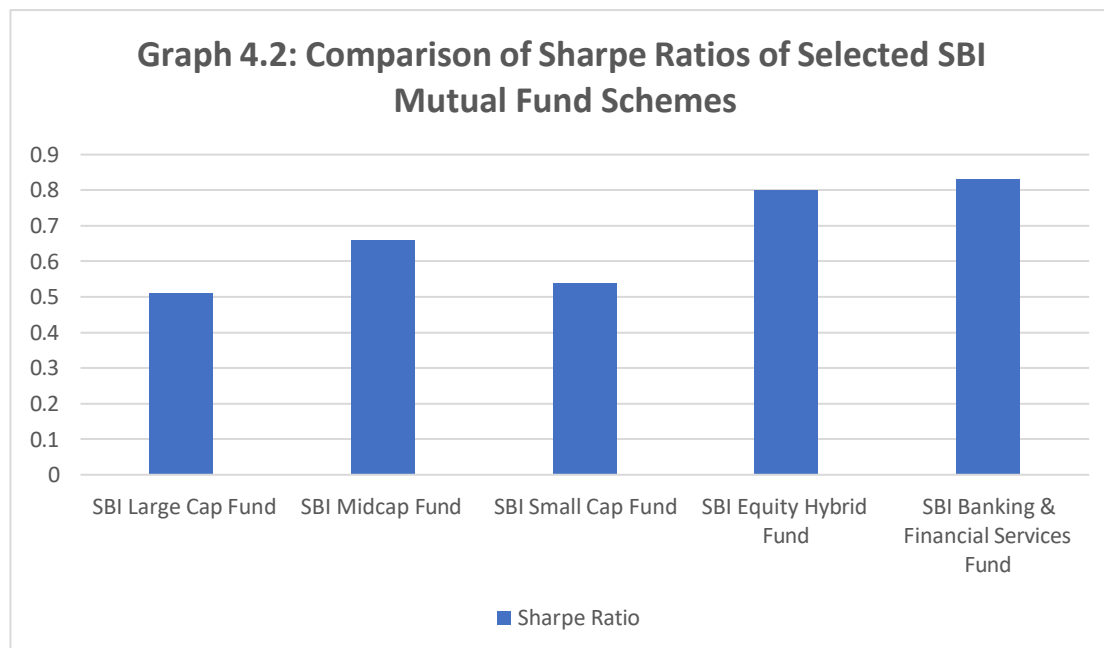
funds, SBI Small Cap Fund has the highest value of 17.16% thus indicating it as the riskiest fund, while on the other hand SBI Equity Hybrid fund has the least value of 10.80%, thereby indicating a relatively conservative stand than the selected funds.

Beta represents the fund's return's sensitivity with respect to the total market return. The SBI Equity Hybrid Fund represents a beta value of 1.03 which implies the risk to be more than the market. The other end of the scale is held by the SBI Small Cap Fund that records a beta value of 0.75 which is less than the market.

The Sharpe ratio is used to identify the additional return offered to the investor for bearing an additional unit of risk; the higher the value, the better is the return. Here the SBI Banking & Financial Services Fund yields the maximum value of 0.83, followed by the SBI Equity Hybrid Fund that yields 0.80. It is hereby concluded that the two funds yielded the best return relatively for the investor's perceived risk.

It is inferred from this risk comparison that small & mid cap schemes are potentially a better investment with stronger growth potentials, but they carry very high risks. In the context of the current market, hybrid funds carry lower risk than that but with lower and steady return. The choice of schemes must be in accordance with the personal risk-taking ability, the desired returns, and individual objectives.

One thing derived from these observations about risk is that a mutual fund cannot be selected merely based on one factor; risk adjusted returns play an integral part. Furthermore, this depicts that risk is extremely vital in any investment strategy. Studies demonstrate that higher return has a higher risk associated; SBI Small Cap Fund and SBI Midcap fund exhibit better return, so also higher risk whereas the SBI Equity Hybrid Fund exhibit lower risk. From the perspective of risk adjusted return, the Sharpe Ratio determines the best performing fund; SBI Banking & Financial Services Fund.



Source: Compiled by the Researcher based on SBI Mutual Fund Factsheets (April 2026).

4.4 Hypothesis Testing Using Correlation Analysis

Correlation analysis has been done to find out relation between risk and return in the selected SBI Mutual Fund schemes. Correlation shows the strength of the relation between the two measures as well as the positive or negative nature between them. Standard deviation has been considered as "risk" and five year annualized performance has been taken as "return" for the purpose of this research.

Table 4.3: Risk and Return Data of Selected SBI Mutual Fund Schemes

Mutual Fund Scheme	Risk(Standard Deviation)	Return(5-Year Return %)	Annualized
SBI Large Cap Fund	13.85	13.03	
SBI Midcap Fund	16.30	17.31	
SBI Small Cap Fund	17.16	16.40	
SBI Equity Hybrid Fund	10.80	12.80	
SBI Banking & Financial Services Fund	14.57	15.30	

Source: Compiled by the Researcher based on SBI Mutual Fund Factsheets (April 2026).

Table 4.4: Correlation Analysis Between Risk and Return

Variables	Correlation Coefficient (r)	Interpretation
Risk and return	0.874	Strong Positive Correlation

Source: Computed by the Researcher based on SBI Mutual Fund Factsheet Data.

Interpretation of Correlation Analysis

Correlation coefficient between risk and return is 0.874. Thus, there exists strong positive relation between risk and return. Higher the amount of risk associated with a mutual fund scheme, higher is the return obtained. This result confirms to the basic financial theory regarding risk-return trade-off stating that, "An investor will receive more reward than the level of risk they are taking". It also appears from results that scheme like SBI Midcap Fund and SBI Small cap fund gave relatively higher return and was also relatively high risk; whereas SBI Equity Hybrid Fund gave relatively less return with less risk. Thus, there exists positive relationship between risk and return among the tested SBI Mutual fund schemes.

Decision on Hypothesis:

Ho: There is a statistically insignificant relation between risk and return for the SBI Mutual Fund schemes under consideration.

H1: There is a statistically significant relation between risk and return for the SBI Mutual Fund schemes under consideration.

Since the correlation coefficient value ($r = 0.874$) is strongly and positively correlated between risk and return, the alternative hypothesis(H) is accepted and the null hypothesis(H) is rejected. Thus, the result is that there is a significant positive relation between risk and return for the SBI Mutual Fund schemes under consideration.

4.5 Comparative Performance Evaluation

Comparative assessment of performance of selected SBI Mutual Fund schemes has been done on the basis of returns and risks. It has been observed that different schemes of SBI Mutual Funds show variation in their performance owing to their objectives, structure of investment and exposure to the market. On the basis of returns it has been concluded that the schemes of SBI Midcap Fund and SBI Small Cap Fund can give good growth in the long term. SBI Midcap Fund gave 17.31%

in five years which is highest for this duration and SBI Small Cap Fund gave highest returns of 22.54% since inception which shows good potential to create wealth for investor. For the short to medium term SBI Banking & Financial Services Fund gave highest returns of 18.83% in three years. For short duration SBI Equity Hybrid Fund gave highest returns of 9.54%. In risk parameter, standard deviation of returns has shown that SBI Small Cap Fund is most volatile from the all schemes which gives high risk. The standard deviation of returns for SBI Equity Hybrid Fund is the minimum among all so it is least risky. Thus, higher returns correspond to higher risk in the schemes. With respect to risk-adjusted performance, it can be observed that SBI Banking & Financial Services Fund is the best performing scheme as it gives highest Sharpe ratio. However, the Sharpe Ratio for SBI Equity Hybrid Fund also proves to be strong risk-adjusted performance among all schemes. So, it can be considered suitable for the investor who wants risk and return balanced. In final it has been concluded that no fund scheme is perfect for all condition. So, investor can choose his scheme on the basis of his objective, attitude toward risk and investment time horizon. Aggressive investors can select midcap and small cap Funds. Conservative investor can invest in equity hybrid fund. And diversification of investments also helps to balance risk and returns.

CHAPTER V

FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Findings of the Study

Summary of the findings has been presented on the objectives-wise as done in Chapter IV. It would assist to understand return performance, risk features, risk adjusted return performance and risk-return relationship for the selected SBI Mutual Fund schemes.

Objective 1: To Analyse the Return Performance of Selected SBI Mutual Fund Schemes

1. SBI Equity Hybrid Fund produced the top one-year return of 7.17% suggesting good performance in the short term.
2. SBI Banking & Financial Services Fund produced the top three-year return of 18.83% showing a good medium-term performance.
3. SBI Midcap Fund produced the top five-year return of 17.31% showing excellent long-term performance potential.
4. SBI Small Cap Fund produced the top since inception return of 22.54%, demonstrating long-term wealth creation potential.

Objective 2: To Evaluate the Level of Risk Associated with the Selected SBI Mutual Fund Schemes

1. Among all the selected schemes, SBI Small Cap Fund has got highest Standard Deviation (17.16%), which shows the highest risk and volatility.
2. SBI Equity Hybrid Fund has got lowest Standard Deviation (10.80%), which represents relative higher degree of stability and riskier performance.
3. Generally, scheme that has higher returns potential has higher risk exposure, and lower risk leads to relative lower returns, that is also the fact in analysis.

Objective 3: To Compare the Risk-Adjusted Returns of the Selected Schemes

1. It can be seen that the SBI Banking & Financial Services Fund has the highest Sharpe ratio (0.83), hence best risk-adjusted performance.
2. The SBI Equity Hybrid Fund stood second with a Sharpe ratio of 0.80, thus showing stable returns relative to

risk taken.

3. From the Sharpe ratio analysis, it can be concluded that evaluation of a mutual fund's efficiency on return analysis alone is inadequate, a better measure is evaluation through risk-adjusted performance.

Objective 4: To Identify the Most Efficient Mutual Fund Scheme Among the Selected Schemes

1. SBI Banking & Financial Services Fund, among all selected mutual fund schemes, appeared to be the most efficient fund based on relative analysis of the risk & return indicators.
2. This fund, with a Sharpe ratio 0.83, delivered higher returns considering the amount of risk involved.
3. Thus, during the period of study SBI Banking & Financial Services Fund yielded a favourable risk return trade-off.

Objective 5: To Examine the Relationship Between Risk and Return

1. The correlation between risk and return yielded a correlation coefficient of 0.874, reflecting a significant positive relation between the two variables.
2. The results validate the basic financial theory stating that a greater amount of risk normally accompanies a greater return.
3. The schemes yielding a higher amount of return also exhibited a greater risk and volatility such as SBI Midcap Fund and SBI Small Cap Fund were also associated with greater risk and volatility.
4. The correlation analysis conducted concluded that the Alternative hypothesis (H) is accepted and the null hypothesis (H) is rejected.

5.2 Conclusion

This study was undertaken to assess the performance of selected SBI Mutual Fund schemes through various risk and return measurements. Five selected funds; SBI Large Cap Fund, SBI Midcap Fund, SBI Small Cap Fund, SBI Equity Hybrid Fund and SBI Banking & Financial Services Fund have been taken into account. Return generating ability and risk-adjusted performance of selected five schemes were examined through various indicators of performance such as annualized returns, standard deviation, beta and Sharpe Ratio.

From the study result it can be said that performance of selected five mutual funds differ according to the time period and time horizons such as SBI Midcap Fund and SBI Small Cap Fund show very strong return generating potential over long time horizons. For medium time frame, SBI Banking & Financial Services Fund shows better performance, and obtained best Sharpe Ratio also. It can be seen that SBI Equity Hybrid Fund is relatively a stable scheme with less volatility and also provides investors reasonable return.

Also, this study confirmed that there is a positive relation between risk and return for the investments made through mutual funds. Thus, mutual funds offering a higher degree of return were more prone to higher risk. Moderate returns were offered by relatively safe schemes. In conclusion, we must not analyse a mutual fund purely on return value but consider other factors too such as risk also.

Furthermore, study has also focused on diversified and informed investment choice. Each category of mutual fund serves specific investor need hence, the study suggested investors should carefully consider their objectives, investment time frame and risk appetite before selecting a particular fund category. According to the result of study no single mutual fund can be said best, in every situation, investment depends upon the individual circumstances.

Coefficient has value of 0.874 from which there is a strong positive correlation found in between risk and return. Hence Alternative Hypothesis (H) is accepted and null hypothesis (H) is rejected. The study identifies SBI Midcap Fund as the best scheme for return generating performance over long run. The study identifies SBI Small Cap Fund as high risk generating fund. The study identifies SBI Banking & Financial Services Fund as better performing scheme based on Sharpe Ratio.

The five selected SBI Mutual Funds, performed satisfactorily during the period of study and have offered investors with different investment options. The conclusion is that Mutual Funds are and will remain beneficial as an investment medium for wealth generation, diversification, portfolio building and long-term wealth creation planning, for all individuals. These results can also be helpful for investors, financial advisors and researchers involved with research on mutual funds.

5.3 Suggestions and Recommendations

Recommendations Based on Investor Risk Profile For Conservative Investors:

- SBI Equity Hybrid Fund could be a choice given the lower volatility. This scheme has exhibited somewhat stable return characteristics.
- Hybrid investment choices might be considered for investors who look for capital preservation and moderate growth.

For Moderate Investors:

- SBI Large Cap fund would also be appropriate as it would be in stable large cap companies and would balance risk with return.
- Large cap diversified equity schemes are suitable for investors who want to invest for the medium term.

For Aggressive Investors:

- SBI Midcap Fund and SBI Small Cap Fund could be good options for those investors seeking higher growth of capital in the long term.
- These schemes offer higher return potential but are associated with greater risk and volatility.

5.3.2 General Suggestions and Recommendations

1. It is imperative that investors assess the financial goals and risk profile of their investment portfolios prior to choosing a specific mutual fund scheme.
2. Long-term investors focusing on substantial capital growth might want to invest in mid-cap and small-cap mutual funds. It has been observed that this category of schemes possesses the highest potential for growth over the long-term.
3. Short-term investors desiring stable and relatively low volatility returns would probably choose to invest in a category of funds such as Hybrid funds which offer risk and return as an even balance.
4. Investors cannot simply look at the past performance and investment history of a mutual fund scheme in order to select that scheme. It is imperative that risks such as the Standard Deviation, Beta and Sharpe Ratio are evaluated.
5. An on-going process of monitoring the mutual fund investments, along with periodic reviews, must be done, so that the scheme selected, continues to match the investor's goals.
6. It would be prudent for investors to invest across various mutual fund categories to bring about an improvement in their long-term portfolio performance and to reduce the overall risk of the portfolio.
7. An investor has to be able to continue to maintain investment discipline, by adopting a systematically investment approach in order to meet long-term financial objectives.

8. Fund managers have to continue to keep up the excellent work on portfolio management and risk management so that investors' confidence is maintained.
9. Mutual fund companies should aim at enhancing investor awareness with regards to risk-adjusted returns and the concept of an informed investor decision making process.
10. Investors should consult the services of appropriate financial advisors whenever it is felt required so as to be able to make appropriate investment decisions based on their respective financial profile.
11. Investors must evaluate both risk and return prior to investing rather than making decisions based on short-term movements in the market.
12. A sound knowledge base coupled with continuous financial awareness on the part of an investor helps in making logical decisions in the mutual fund market.

5.4 Limitations of the Study

1. This study has selected only five schemes of SBI Mutual Fund therefore it cannot be concluded and compared to all available schemes of mutual fund in the market.
2. Since this study depends upon the secondary data collected from SBI Mutual Fund factsheets and published reports, it will be useful as far as available data is accurate.
3. The selection of variables on risk and return measures like annualized return, Standard Deviation, Beta, Sharpe ratio has only focused too few aspects which will affect the result of performance analysis of mutual funds schemes, thus the analysis does not consider other factors.
4. The selection of the fund to this study is based on only SBI Mutual Fund schemes only which do not include funds of other AMC.
5. Past performance of the schemes is being used and that can in no way be regarded as a guarantee of its future performance.
6. No attempt is made to explain the prevailing market conditions, economic conditions and any regulatory changes that may have affected the performance of mutual fund scheme during the period of study.
7. No extensive research on few parameters could be undertaken, because of lack of time and resources at the researcher's end.
8. Taxation, inflation and the effect of transaction costs have been neglected in the present study which effects the investor's return and thereby performance measurement cannot reach to its logical end.
9. Only quantitative measures of performance have been considered, while ignoring qualitative measures like fund manager experience, management expertise and strategy of investment etc.
10. Investor satisfaction, perception or behavioural aspect have not been considered in this research study.
11. Economic shocks, market volatility and unexpected situations of such nature cannot be predicted.
12. These performance metrics are evaluated based on specific measurement period and can differ depending on the market conditions in the future and future economic circumstances.

5.5 Scope for Future Research

1. The number of mutual fund schemes belonging to diverse asset management companies may be considered for future research to have a wider comparative scope.

2. A performance comparison could be made of SBI Mutual Fund schemes with those of other top mutual fund companies in India.
3. Other measures for evaluation of performance like Treynor Ratio, Jensen's Alpha and Fama's performance measure could be included for future study.
4. Studies could be made on the effect of macroeconomic parameters and market conditions on mutual fund performance.
5. The performance of different industries and sectors with regard to their respective mutual funds could be analysed.
6. Investors behaviour and preferences while selecting mutual funds may be studied further.
7. Active mutual funds can be compared with the passive investment products like Index funds and ETFs.
8. Further similar study can be done by considering data of later periods.
9. Factors like technology innovation and digital investment platforms can also be taken for consideration to study their effect on investment in mutual funds.
10. The difference in risk and return characteristics can be examined on the basis of Equity, Debt, Hybrid and Thematic Mutual Funds.
11. Impact of events like financial crises, market crash and global financial shock on the performance of the mutual funds can also be examined.
12. The role of investor awareness and literacy may be studied in the selection of particular mutual funds.
13. Studies could also be made for developing predictive models for predicting mutual fund performance.

5.6 Practical Significance and Investor Implications

The results of the present study have practical implications for both investors and financial advisors. The examination of the selected SBI Mutual Fund schemes has provided information on how risk and return relationship may exist in them and would prove useful for the investors to take appropriate decisions based on their own investment objectives and risk-taking ability.

Different types of mutual fund schemes result in different risk-return profile of the mutual fund schemes. An investor who prefers moderate returns along with moderate risk may choose large cap or Hybrid schemes, an investor with moderate-high return expectations may select mid cap or small cap schemes based on their risk-taking ability and investment objectives. Investors with high-risk taking capacity and a specific outlook on a sector may consider investing in sector specific funds.

The risk-adjusted performance analysis also shows how an investment option must be evaluated based not just on the returns it yields, but also based on the level of risk involved. It is useful for the investor to consider the risk-adjusted returns before selecting a scheme for investment.

The study may also be useful to the financial planners, financial advisors, distributors, portfolio manager for making investment decisions of their clients as well as planning investment for clients as compared to other similar funds.

CHAPTER VI

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