Performance Analysis Of Mutual Funds With Special Reference To SBI Long Term Equity Fund –Growth Option Scheme

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Abstract:

The mutual fund industry plays a dynamic role in economy by mobilizing savings and investing them in the capital market. Mutual funds play a vital role in pooling the huge chunk through small investments. This study aims to investigate the SBI Long Term Equity Fund - Growth Option Scheme's performance review.A number of financial tests, including Standard Deviation, Beta, Treynor, Treynor, Jensen, and Fama ratios, were evaluated in order to complete the analysis, (M^2) Franco Modigliani and Lea Modigliani & R^2(Correlation squared). Gathering information from multiple sources, including RBI, SEBI, and AMFI. According to the various techniques, this research presents a picture where the majority of the year's fund returns exceed the market return.

KEYWORDS: *Mutual fund, Capital, Jensen Ratio, AMFI, RBI.*

Introduction:

A mutual fund pools the savings of small investors, places them in government and corporate assets, and produces income through dividends and interest in addition to capital gains. It functions under the assumption that a vast ocean is composed of tiny water droplets. For example, an investor with Rs. 1,000/-could not expect to make anything on their own. However, if several individuals contribute Rs. 1,000 to it, one may amass a sizeable fund that would enable them in order to benefit from economies of scale and invest in a range of shares & debentures on a dominating scale.

Review of Literature:

Jack Treynor (1965)developed the average excess return on the portfolio, or reward to volatility metric, as a means of assessing mutual fund performance. The next statistic is the Sharpe (1966) incentive to unpredictability meter, which is the average additional return of the portfolio's standard deviation divided by it.

Sharpe (1966)11 funds out of 34 with better performance between 1944 and 1963 were imported when a composite performance evaluation criterion was developed.

Michael C. Jensen (1967)between 1954 and 1964, an empirical investigation was carried out on 115 different mutual funds. The analysis indicates that these funds can't accurately forecast stock prices to beat a buy-and-hold strategy. The analysis disregarded the gross management expenses because they were clearly visible. There wasn't much proof that any particular fund might beat investors' predictions by accident. Jensen (1968) conducted a ground-breaking study in which he created an absolute performance indicator based on the Capital Asset Pricing Model and concluded that, when transaction costs were taken into account, mutual funds did not seem to perform very well.

Fama (1972)created a system for assessing the investment performance of managed portfolios and recommended dissecting the overall performance into numerous components.

Michael K. Berkowitz and Yehuda Katouritz (2002) In their paper, they looked at the connection between mutual fund performance and charge modifications. The study made a distinction between high-quality and low-quality funds and provides more insight into the escalating dispute over the independent directors' supervision of the fee arrangements the funds have implemented.

Ms.NidhiWalia, Dr (Ms) Ravi Kiran(2010) Research on mutual fund organizations was conducted for the publication "Efficient Market Hypothesis, Price Volatility, and Performance of Mutual Funds" in order to ascertain whether mutual fund managers may outperform by forecasting market movements. The purpose of this research was to determine whether the risk tolerance and investing decision-making styles of men and women could be distinguished using variables such as age, gender, and investment habits alone or in combination. Furthermore, the study sought to offer guidance to investment managers so they might create investment schemes that consider these different viewpoints.

Objectives of the study

The purpose of the study is to compare the risk and return performance of the SBI Long Term Equity Fund –Growth Option Scheme to market indexes from January 2019 to December 2023.

Research Methodology

For analytical reasons, secondary data forms the foundation of the current investigation. Additional data collected from numerous websites. The websites "www.amfinindia.com, www.bluechipindia.co.in, www.bseindia.com, www.nseindia.com, and www.crisil.com" are the sources of the Net Asset Value (NAV) and market index values.The present study will be completed between 2019 and 2023. The current analysis contrasts the risk and return of the SBI Long Term Equity Fund with those of the growth option scheme and the Sensex benchmark indices. The performance study of mutual funds is looked at using metrics like beta, standard deviation, Sharpe ratio, Treynor ratio, Jensen ratio, Fama ratio, M2 Measures, and R-square (R2). The SBI Long Term Equity Fund –Growth Option Scheme is specifically mentioned in this analysis.

Analysis

Performance Analysis of SBI Long Term Equity Fund – growth option scheme with BSE SENSEX from 2019-2023

Year	Rp	Rm	Beta	SDp	SDm	S p	S m	Tp	Tm	J	Fama	M²	R²
2019	-0.16	0.96	0.60	3.45	3.11	-0.06	0.29	-0.36	0.90	0.33	-0.22	-0.14	0.35
2020	1.89	1.44	1.03	11.45	9.96	0.16	0.14	1.78	1.38	3.24	2.92	1.65	0.96
2021	1.62	1.40	0.49	2.76	4.03	0.57	0.33	3.17	1.35	2.21	1.44	2.35	0.62
2022	-0.36	0.57	0.75	4.82	4.52	-0.09	0.11	-0.56	0.51	-0.01	-0.23	-0.34	0.59
2023	1.86	1.30	1.09	5.35	3.29	0.34	0.38	1.65	1.24	3.14	3.64	1.16	0.54

The performance evaluation of the mutual fund SBI Long Term Equity Fund - Growth Option Scheme is displayed in the above table along with the return on the portfolio of the fund, the return of the market index Sensex, beta, standard deviation of the fund's portfolio, and standard deviation of the market index Sensex. the Treynor ratio, the Jensen, Fama, Modigliani & Miller Approach, R-squared, and the Sharpe ratio of the SBI Long Term Equity Fund - Growth Option Scheme portfolio.

The SBI Long Term Equity Fund – Growth Option Scheme has the highest positive return of 1.89 in 2020; this is in contrast to the benchmark return of 1.44 in the same year, indicating that the scheme has outperformed the market. Three of the five years show positive returns for the schemes, and five of the five years show positive returns for the markets. For five out of the past five years, In terms of returns, the fund has outperformed the market, indicating that its returns are superior.

The fund is riskier in 2020 compared to the benchmark return of 9.96, as indicated by its biggest standard deviation of 11.45 for that year. The plan is riskier than the market in four of the five years; in one of the five years, it is less risky than the market.

In contrast to idiosyncratic characteristics, beta measures the risk associated with exposure to generic market movements. The beta of the market portfolio, which includes all investable assets, is precisely 1. A beta of less than one can point to an investment that is less volatile than the market or that is volatile but has little correlation with market movements. An asset is considered volatile and has a tendency to go up and down by the marketplace if its beta value exceeds one. Investments that have a tendency to decline when the market rises may have negative betas, and vice versa.

The scheme's computed beta is positive throughout all years, suggesting that investment risk is rising in tandem with market conditions. If the scheme's beta is less than one in three out of five years, it is less volatile than the market. When a scheme's beta exceeds one in two out of every five years, it means that it is more volatile than the market, which implies that it has a larger risk along with a higher rate of return. The 2023 plan has the greatest beta rating of 1.09, indicating more volatility, risk, and rate of return.

Sharpe ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk. Subtracting the risk-free rate from the mean return, the performance associated with risk-taking activities can be isolated. Sharpe ratio of exactly zero is that the portfolio engaging in "zero risk" investment. The risk-adjusted return is often more appealing the higher the Sharpe ratio value.

Three of the five years that the scheme's sharpe ratio has been positive mean that the scheme has outperformed the risk-free rate in terms of return on investment. The scheme has underperformed in contrast to the two investments' risk-free rate of return (2019, 2022) out of the five years that the Sharpe ratio displays negative values for. In three of the five years, the fund's Sharpe ratio has outperformed the market's, suggesting that it performs on par with the latter.

Treynor's ratio adjusts excess return for systematic risk. This ratio of return generated by the fund over and above risk-free rate of return. A high and positive Treynor's measure shows a superior risk-adjusted performance of a fund. A low and negative Treynor's measure is an indication of unfavourable performance.

The scheme's greatest Treynor's ratio, 3.17 in 2021, indicates better risk-adjusted performance. In three of the five years, the Treynor's ratio is positive, meaning the fund beat the market; however, in two of the five years, it underperformed.

The most popular technique for estimating the return that the scheme should have generated at a particular degree of risk is the Jensen measure. When the alpha is positive, the return is generally more than anticipated based on the beta statistic. When a fund has a negative alpha, it is underperforming. Given the amount of systematic risk in the portfolio, alpha calculates its value-added. People refer to it as Jensen's Alpha.

In four of the five years, the Jensen ratio is positive, meaning that the fund return exceeded the predicted beta statistic. In one out of every five years, the Jensen ratio is negative, meaning that the fund's return was less than the market return. This suggests that, given the level of risk they were taking, the mutual fund management would not have made enough money. The scheme's highest Jensen ratio, 3.24 in 2020, indicates that the fund return exceeded the market return.

A positive value of Fama indicates that the fund earned returns higher than expected returns and lies above CML and a negative value indicates that the fund earned return less than expected returns and lies below CML.

According to Fama, the greatest figure was 3.64 in 2023. The fact that the fund's Fama values are positive for three of the last five years indicates that it beat the market. Out of five years, two of them—2019 and 2022—have negative Fama values, which suggest that the fund performed poorly during those two years.

Franco and Lee Modigliani developed another risk-adjusted performance metric by matching the risk of a given portfolio to the risk of the market portfolio and figuring out the right return for that portfolio. The concept is that the plan's portfolio can be adjusted to approximate the standard deviation of the market. The return that this adjusted portfolio produces is called M2. A portfolio may have outperformed the marketplace portfolio if its M2 value is high; conversely, a low M2 value may indicate underperformance.

The fund beat the market, as evidenced by the greatest positive M2 value of 2.35 in 2021. The fund surpassed the market portfolio, as evidenced by the fact that M2 values are positive in three of the five

years. Two of the five years' worth of negative M2 values indicate that the fund performed worse than the market portfolio.

The R squared of the XY graph shows the proximity of each point to the best-fit line. A fund with an R-squared of 1 would show perfect correlation with the selected index if everything was on the line. The absence of correlation would result from a zero R-squared. The lower the R-squared, the less reliable beta is as a measure of a fund's volatility. An elevated R-squared figure, falling between 85% and 100%, indicates that the stock or fund's performance primarily mirrors that of the index. A fund's R-squared of 70% or less indicates that it doesn't usually follow changes in the index.

In one of the five years, the R squared value is high, suggesting a positive correlation between the fund and market volatility and positive returns relative to market returns.

Table 2

Average Returns of SBI Long Term Equity Fund –Growth from 2019-2023

	Scheme	Sensex
Return	0.97	1.13
Sharpe	0.18	0.25
Standard Deviation	5.56	4.98
Beta	0.79	0.79

The above table shows that the average returns of SBI Long Term Equity Fund -Growth of return, Sharpe ratio, Standard deviation and beta.

The average return of 5 years of SBI Long Term Equity Fund -Growth is higher than the Sensex.

The SBI Long Term Equity Fund - Growth exhibits a better average Sharpe Ratio than the Sensex, suggesting that the scheme is outperforming both the market returns and the risk-free rate of return.

The scheme is more riskier as indicated by the greater return market standard deviation for the first five years of the program.

Conclusion

The following conclusions are drawn from the analysis and study of the SBI Long Term Equity Fund - Growth Option Scheme mutual fund scheme. The funds' performance has outperformed the returns on the market. In most years, the beta value is less than 1, indicating lower volatility compared to market indices. The schemes have surpassed the risk-free rate in terms of return in three of the five years that the Sharpe ratio has been positive. In four of the five years, the Jensen ratio is positive, meaning that the fund return exceeded the predicted beta statistic. In one out of every five years, the Jensen ratio is negative, meaning that the fund's return was less than the market return. This suggests that, given the level of risk they were taking, the mutual fund management would not have made enough money. In the end, I draw the conclusion that the funds outperformed the market indices.

References

- E. Gordon, K. Natarajan (2010), "Financial Markets and Services", Himalaya Publishing House.

- Jeff Madhura (2009), "Financial Markets and Institutions", Cengage Learning.

- LM Bhole, JitendraMahakud (2010), "Financial Institutions and Markets", Tata Mcgraw Hill Education Pvt. Ltd.,

- M. Y. Khan (2010), "Financial Services", Tata Mcgraw Hill Education Pvt. Ltd.,

- Frederic S. Mishkin, Stanley, G. Eakins (2006), "Financial Markets and Institutions", Pearson Publications.

- www.slideshare.com

- www.moneycontrol.com

- www.wikipedia.com

- www.amfiindia.com

- www.bseindia.com

- www.nseindia.com

- www.bluechipindia.co.in

- www.preservearticles.com

- www.mutualfundindia.com

- www.amfiindia.com