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A STUDY ON RISK AND RETURN ANALYSIS OF SELECTED MUTUAL FUNDS

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ABSTRACT

Individuals and institutions alike are increasingly turning to mutual funds as a means to diversify their portfolios, benefit from expert management, and build wealth over the long run. Yet, it is crucial to assess the risk-return characteristics of mutual funds since their performance differs greatly based on market circumstances, fund goals, and portfolio techniques. Using important financial measures including average returns, standard deviation, beta, Sharpe ratio, Treynor ratio, and Jensen's alpha, this research intends to inspect the risk and return performance of chosen Indian mutual funds over a certain time frame. The research examines the efficiency and consistency of return generation compared to risk absorbed by comparing the performance of debt-oriented, hybrid, and equity-oriented schemes. The study makes use of secondary data gathered from AMFI, fund information sheets, and past NAVs. While providing insight into the general efficiency of mutual fund managers in producing risk-adjusted returns.

INTRODUCTION

In a mutual fund, a group of knowledgeable investors work together to manage a pooled investment portfolio.

A trust is a legal entity that invests the combined assets of a number of people who have come together with the common purpose of investing in stocks, bonds, money market instruments, and other similar assets. A scheme's "Net Asset Value" (NAV) is its total asset value less its total expenditures and levies. After then, the investors get a portion of the investment's earnings. The simplest definition of a mutual fund is an investment pool that includes the capital of several individual participants.

This is a simple way to understand what a Mutual Fund Unit is.

Just pretend for a second that a dozen chocolates may be yours for forty rupees. Since the vendor only sells it by the box, four friends nevertheless choose to buy it, even though they only have ₹10 each. It is decided that the friends would each donate ₹10 so that they may buy the 12-piece chocolate set. Three chocolates (or three units, in the case of mutual funds) will be distributed to each individual based on their contribution.

How does the price of a single unit then come to be? Subtract the whole amount of chocolates from the total amount: 3.33 is the result of dividing 40 by 12.

If the quantity of units (3) and the price per unit (3.33) were compounded, the initial outlay would amount to 10 ₹.

Since each friend gets a share in the box of chocolates, under this arrangement, they are all practically co-owners.

The next idea that has to be understood is "Net Asset Value" (NAV). Similar to how the market price of an equity share is determined, the Net Asset Value per Unit determines the value of a mutual fund's unit. The market value of a fund's shares, bonds, and assets held on a certain day is the net asset value (NAV), after subtracting any permitted fees and charges. Each unit in a mutual fund scheme is worth its Net Asset Value (NAV) on a given day, which is the market value of all the units combined. The number of outstanding Units divided by their market value is how it is determined.

Mutual funds are an option for investors who do not have a large amount of cash to invest or who do not have the time or want to research the market. However, they still want their money to grow. In accordance with the stated objective of the program, professional fund managers invest the cash that mutual funds receive. As remuneration, the fund company takes a small percentage of your funds. Mutual fund fees in India are regulated and controlled within certain criteria by the Securities and Exchange Board of India (SEBI). India has one of the world's highest savings rates. Mutual funds, not the more traditional bank FDs or gold, are the way to go for Indian investors due to their tendency for wealth creation. A lack of understanding of mutual funds is to blame for their declining popularity. Mutual funds provide a diverse array of investment opportunities. Everything one needs to invest for various goals (retirement, sending kids to college or the wedding, purchasing a house, etc.) is different. The diverse range of schemes offered by the Indian mutual fund sector caters to the needs of a large number of investors.

An excellent approach for average individuals to participate in capital market profits when

they occur is via mutual funds. Although mutual funds are a solid investing choice, finding the right one could be challenging. So, investors should either consult a qualified financial planner or do their own study on the fund, factoring in the time horizon and risk-return trade-off. To maximize the return on investment (ROI) of mutual funds, investors should diversify their holdings across several asset classes, such as stocks, bonds, and gold. The stock market is open to everybody; nevertheless, a mutual fund provides a better alternative due to its more extensive range of benefits.

In finance, a "mutual fund" is an investment vehicle that pools the money of several investors and then purchases assets such as stocks, bonds, money market instruments, and government bonds.

Expert fund managers invest the capital gathered from mutual fund schemes in stocks, bonds, and other assets that correspond to the investment goal of the plan. Investors in this collective investment plan get a percentage of the income or profits after deducting applicable fees and taxes, according to the scheme's "Net Asset Value" (NAV). Mutual funds charge a very little fee as remuneration.

Many people may benefit from the expertise of a single fund manager when they combine their resources into a mutual fund.

Statement of the Problem

The level of risk that comes with a mutual fund is decided by its asset allocation, market exposure, and fund strategy. Equity funds are known for their high level of risk, whereas debt funds are known for their low level of risk and relatively low return. Due to the growing dependence of investors on mutual funds, the difficulty in evaluating fund performance, and the critical nature of risk management, it is imperative to study the benefits and drawbacks of individual mutual funds with regard to return and risk. Investors may improve their portfolio optimization, decision-making, and financial goal attainment by comparing the risk-return profiles of various funds, which provides a better understanding of the risks involved. This study can help investors maximize returns while aligning their investments with their risk tolerance, leading to better financial success and stability.

Objectives of the Study

- **To evaluate the historical return performance** of selected mutual funds over a defined study period.

 To analyze the risk associated with the selected mutual funds using measures such as standard deviation, beta, and variance.

 To assess the risk-adjusted performance of the mutual funds using metrics like Sharpe Ratio, Treynor Ratio, and Jensen's Alpha.

 To compare the performance of different categories of mutual funds (equity, debt, hybrid) to determine which category offers better risk–return trade-offs.

Research Gap

There have been a lot of studies looking at Indian mutual funds, but most of them merely look at returns without using risk-adjusted metrics as Treynor, Sharpe, and Jensen's Alpha. Little is known about how equity, debt, and hybrid funds compare since most previous research focused on only one kind of mutual fund. Previous studies also often use out-of-date data, which doesn't account for things like post-pandemic investing trends or market volatility. These factors might impact the performance of the funds. To further assess the actual efficacy of fund managers, there is a dearth of in-depth research that contrasts the results of funds with benchmark indexes. A comprehensive and up-to-date risk-return analysis that takes into account both risk and risk-adjusted performance measures across various fund categories is necessary to fill these gaps. Investors, fund managers, and lawmakers will all benefit from the in-depth knowledge that such a research will provide.

Research Methodology

Taking into account the study's objectives and depending on secondary data collected from journals, periodicals, and magazines, the research uses a comparative approach.

Sources of Information:

Primary data: Information gathered directly from the point of origin or another principal source is known as primary data. The agency will be gathering this data for research purposes for the very first time.

Research Design: Descriptive Research Design

Tools for analysis : Standard Deviation, Beta, Average Returns

Formula to calculate Returns

$$= \frac{\text{Close Price} - \text{Open Price}}{\text{Open Price}} \times 100$$

Secondary Data: Data collected from external sources: Known as previously obtained data,

this content is housed in publications such as journals, periodicals, papers, and websites. The data for the study came from secondary sources, which include academic journals, papers, and websites.

Limitation of the study

• The study's main drawback is that it takes too much time.
• Only three firms' worth of data is used for study
• The data comes from secondary sources, which could or might not provide useful findings
• The study's limitations, the historical nature of the data collected, and the researchers' own subjective opinions all contribute to the possibility of bias.

Literature Review

A study on Risk and Return analysis of Debt Mutual Funds with Respect to ICICI Prudential Mutual Funds by Honnesh, Dr. Shailaja M L, (Sep 2023): Investors can find security and the possibility of income with ICICI Prudential Debt Mutual Funds' various fixed income investing alternatives. The objective of this research is to assess the return-risk profile of a subset of ICICI Prudential Mutual Funds' debt mutual funds. The purpose of this analysis is to give a thorough review of these funds using standard deviation, mean return, and the Treynors ratio, which are all widely used evaluation methodologies. The research findings provide valuable insights into the relationship between risk and return within the context of debt mutual funds offered by ICICI Prudential Mutual Funds. This information is relevant for both potential investors and industry stakeholders

Risk and Return Analysis of Selected Flexi Cap Mutual Funds by Dr. Shruthi Punj, Mata Gujri, (Oct 2022): Investors see mutual funds as a great way to diversify their portfolio into a number of firms with potentially high share prices without having a large quantity of money to invest all at once. The funds in question were selected after extensive investigation of their risks and returns. Though it's negative on average, the Aditya Birla and Parag Parikh Flexi Cap mutual funds have the lowest negative return in terms of monthly returns. The greatest return achieved by the Parag Parikh Flexi Cap mutual fund in successive quarters. Of all the Flexi Cap mutual funds, Parag Parikh Flexi Cap yields the greatest average yearly return, followed by UTI, SBI, PGIM, and Aditya Birla

Risk, Return, and Diversification of Specialty Mutual Funds by Thomas S Howe, Ralph A

Pope, (Sep n2011): Comparing specialist mutual funds to more conventional mutual funds, this research looks at their diversity, risk, and return potential. Data was lacking for some types of specialized funds, making it impossible to evaluate their performance until recently. Overall, specialty funds seemed to have performed about the same as regular equity mutual funds within the time frame that was considered. Contrarily, compared to conventional equity mutual funds, most types of specialist funds carry a higher overall risk and a disproportionate amount of unsystematic risk. These schemes are frequently proposed to small-scale investors as a means of amassing wealth over an extended duration. The purpose of this study is to determine the best flexi cap fund by analyzing its past performance according to several risk and return criteria. Thorough research of the potential risks and rewards of the funds in issue led to their selection

Clusterng Mutual Funds by Returns and Risk Levels by Francesco Lisi, Edoardo Otranto, (Jan 2010): Classifications of mutual funds, as determined by rating organizations, are prevalent and occasionally criticized. The authors suggest a three-stage statistical process for categorizing mutual funds in this paper. As a preliminary step, return metrics are used to characterize fund time series. Step two involves doing a clustering analysis to get groups of funds that are similar in terms of risk. Managers of Flexi Cap mutual funds may base their investments on market forecasts. As a means of amassing wealth over an extended duration, these schemes are frequently proposed to small investors. Using a wide range of return and risk indicators, this study aims to determine which flexi cap fund is the best. After careful consideration of the potential benefits and drawbacks, the funds in issue were chosen

Historical Simulation of Risk and Return in Mutual Funds through Value at Risk Analysis by Sana Ellahi, (May 2019): This study employs a historical simulation technique to examine the impact of various mutual funds' financial difficulties on their return and risk level in a turbulent market environment. One way that financial institutions might quantify the degree of risk they face in order to minimize financial loss is through value at risk. Fund managers may base their investments in Flexi Cap mutual funds on market forecasts. These schemes are frequently proposed to small-scale investors as a means of amassing wealth over an extended duration. The purpose of this study is to determine the best flexi cap fund by analyzing its past performance according to several risk and return criteria. Thorough research of the potential risks and rewards of the funds in issue led to their selection

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Data Analysis & Interpretation

Selected Funds for analysis are

- HDFC ARBITRAGE FUND - Growth Option - Direct Plan
- SBI Balanced Advantage Fund - Regular Plan – Growth
- Axis Gilt Fund - Regular Plan - Growth Option
- LIC MF Value Fund-Regular Plan-Growth
- UTI - GILT FUND - Regular Plan - Growth Option

Comparison of Return and Risk of Selected Funds

S.No	Mututal Funds	Returns	SD	Beta
1	HDFC ARBITRAGE FUND - Growth Option - Direct Plan	0.30	0.055	-1.79
2	SBI Balanced Advantage Fund - Regular Plan - Growth	0.003	0.36	0.79
3	Axis Gilt Fund - Regular Plan - Growth Option	0.031	0.16	0.89
4	LIC MF Value Fund-Regular Plan-Growth	-0.049	1.28	0.16
5	UTI - GILT FUND - Regular Plan - Growth Option	0.036	0.17	0.39

Comparison of Sharpe Ratio

S.No	Mututal Funds	Returns
1	HDFC ARBITRAGE FUND - Growth Option - Direct Plan	-1.27
2	SBI Balanced Advantage Fund - Regular Plan - Growth	-0.269
3	Axis Gilt Fund - Regular Plan - Growth Option	-0.431
4	LIC MF Value Fund-Regular Plan-Growth	-0.116
5	UTI - GILT FUND - Regular Plan - Growth Option	-0.37

Comparison of Jenson Ratio

S.No	Mututal Funds	Returns
1	HDFC ARBITRAGE FUND - Growth Option - Direct Plan	-0.039
2	SBI Balanced Advantage Fund - Regular Plan - Growth	0.1227
3	Axis Gilt Fund - Regular Plan - Growth Option	-0.0775
4	LIC MF Value Fund-Regular Plan-Growth	-0.0236
5	UTI - GILT FUND - Regular Plan - Growth Option	-0.0164

Comparison of Treynor's Ratio

S.No	Mututal Funds	Returns
1	HDFC ARBITRAGE FUND - Growth Option - Direct Plan	-0.0617
2	SBI Balanced Advantage Fund - Regular Plan - Growth	-0.151
3	Axis Gilt Fund - Regular Plan - Growth Option	-0.05
4	LIC MF Value Fund-Regular Plan-Growth	0.143
5	UTI - GILT FUND - Regular Plan - Growth Option	-0.0385

Findings

- Average returns for the HDFC Mutual fund for the period of 6 months (i.e. 1st August 2024 to 31st January 2025) is 0.03 and the SD is 0.055. Beta is -1.79 which is less than 1, which indicates less volatile than the market.
- HDFC Mutual Funds, Sharpe ratio shows negative value (i.e-1.27) and Treynor's value shows Negative value (i.e -0.39) & Jensen ratio shows negative value (i.e. -0.0617). So the funds performance shows less performance than the market Indices.
- Average returns for the SBI Mutual fund for the period of 6 months (i.e. 1st August 2024 to 31st January 2025) is 0.003 and the SD is 0.36. Beta is 0.79 which is less than 1, which indicates less volatile than the market.
- SBI Mutual Funds, Sharpe ratio shows negative value (i.e-0.269) and Treynor's value shows Negative value (i.e. -0.1227) & Jensen ratio shows negative value (i.e. -0.151). So the funds performance shows less performance than the market Indices.
- Average returns for the UTI Mutual fund for the period of 6 months (i.e. 1st August 2024 to 31st January 2025) is 0.031 and the SD is 0.16. Beta is 0.89 which is less than 1, which indicates less volatile than the market.
- UTI Mutual Funds, Sharpe ratio shows negative value (i.e-0.435) and Treynor's value shows negative value (i.-0.0775) & Jensen ratio shows negative value (i.e. -0.045). So the funds performance shows less performance than the market Indices.
- Average returns for the UTI Mutual fund for the period of 6 months (i.e. 1st August 2024 to 31st January 2025) is -0.049 and the SD is 1.28. Beta is 0.16 which is less than 1, which indicates less volatile than the market.
- LIC Mutual Funds, we can state that Sharpe ratio shows negative value (i.e-0.16) and Treynor's value shows negative value (i.-0.023) & Jensen ratio shows Positive value (i.e. 0.043). So the funds performance shows less performance than the market Indices.
- Average returns for the Axis Mutual fund for the period of 6 months (i.e. 1st August 2024 to 31st January 2025) is 0.036 and the SD is 0.17. Beta is 0.39 which is less than 1, which indicates less volatile than the market.
- Axis Mutual Funds, we can state that Sharpe ratio shows negative value (i.e-0.37) and Treynor's value shows negative value (i.-0.164) & Jensen ratio shows Positive value (i.e. 0.0385). So the funds performance shows less performance than the market Indices.

Suggestions

- Axis Bluechip Fund and HDFC Equity Fund are two examples of equity funds that aggressive investors may like, while SBI Debt Fund and UTI Balanced Fund are two examples of debt and hybrid funds that cautious investors may choose.
- Diversify the assets across several asset classes and fund companies to lower your overall investment risk. Some good examples include LIC, SBI, Axis, HDFC, and UTI. The risk of loss from fluctuations in a single asset type can be mitigated by diversification.Over the course of five years or more, mutual funds, and equities funds in particular, tend to do quite well. There will likely be some short-term volatility, but investors who are patient usually end up with superior returns.
- Put the money into SIPs (Systematic Investment Plans) so that Investor may invest consistently over time. By making investments at regular intervals, SIPs serve to smooth out the ups and downs of the market.
- Since the fund manager's methods greatly impact the returns of the fund, it is important to assess their expertise and track record.
- High management costs eat away at returns over time, so be sure to check each fund's expense ratio. Better net returns, particularly over the long term, may be available from funds with lower expense ratios.
- To avoid paying for things you don't need, familiarize yourself with the exit load (early withdrawal fees) and invest for the recommended holding term.
- Consider risk-adjusted measures such as the Sortino ratio and the Sharpe ratio in addition to returns. If the fund is too risky, a high return could not be indicative of a successful investment.
- Particularly in a rising or falling interest rate environment, investors in debt funds should consider the fund's credit risk and how it reacts to changes in interest rates.

CONCLUSION

Mutual funds, like those provided by LIC, SBI, Axis, HDFC, and UTI, can help investors diversify their holdings, reach their financial objectives, and control risk across different types of assets. Understanding one's risk tolerance, financial objectives, and investment horizon is crucial for effective mutual fund investing. In order to make well-informed judgments that suit their needs, investors can review the cost ratios, risk-adjusted returns, historical performance, and fund selection criteria. Your prospects of attaining long-term

financial success may be further enhanced by regularly evaluating your investments, prudently diversifying them, and engaging with financial consultants.

In the end, mutual funds provide a convenient and adaptable way to invest, but staying disciplined and committing to a long-term strategy is still the key to optimizing profits and surviving market turbulence. If you know what you're doing, mutual funds may be a solid way to build money and secure your financial future.

Bibliography

REFERENCES

1. Honnesh, H., & L, D. (2023). A STUDY ON RISK AND RETURN ANALYSIS OF DEBT MUTUAL FUNDS WITH RESPECT TO ICICI PRUDENTIAL MUTUAL FUNDS. EPRA International Journal of Multidisciplinary Research (IJMR), 52–56. https://doi.org/10.36713/epra14317
2. Punj, D. S., & M.P, A. (2022). Risk and Return Analysis of Selected Flexi Cap Mutual Funds. International Journal of Multidisciplinary Research and Analysis, 05(10), 2763–2771. https://doi.org/10.47191/ijmra/v5-i10-25
3. Howe, T. S., & Pope, R. A. (2011). Risk, Return, And Diversification Of Specialty Mutual Funds. Journal of Applied Business Research (JABR), 9(4), 45. https://doi.org/10.19030/jabr.v9i4.5992
4. Lisi, F., & Otranto, E. (2010). Clustering mutual funds by return and risk levels (pp. 183–191). springer milan. https://doi.org/10.1007/978-88-470-1481-7_19
5. Ellahi, S. (2019). Historical simulation of risk and return in Mutual funds through Value at risk Analysis. Pakistan Business Review, 20(3), 726–739. https://doi.org/10.22555/pbr.v20i3.573
6. Nursanita, N., & Pratiwi, W. Y. (2023). Performance Comparative Analysis of Sharia Mutual Funds and Conventional Mutual Funds. Research of Islamic Economics, 1(1), 11–25. https://doi.org/10.58777/rie.v1i1.72
7. Sorros, J. N. (2003). Return and risk analysis: a case study in equity mutual funds operating in the Greek financial market. Managerial Finance, 29(9), 21–28. https://doi.org/10.1108/03074350310768454
8. Bodnaruk, A., Simonov, A., & Chokaev, B. (2015). Downside Risk Timing by Mutual Funds. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2654055

9. Kučinskas, S. (2019). Aggregate risk and efficiency of mutual funds. Journal of Banking & Finance, 101(4), 1–11. https://doi.org/10.1016/j.jbankfin.2019.01.001
10. Nouman, M., & Shah, A. (2013). Risk Adjusted Performance of Pakistani Mutual Funds. Business & Economic Review, 5(2), 65–78. https://doi.org/10.22547/ber/5.2.5
11. Mawikere, J. C. (2022). PERFORMANCE ANALYSIS OF MONEY MARKET MUTUAL FUNDS, FIXED INCOME MUTUAL FUNDS, MIXED MUTUAL FUNDS, AND STOCK MUTUAL FUNDS IN INDONESIA DURING THE 2015-2020 PERIOD. International Journal of Economics, Business and Accounting Research (IJEBAR), 5(4). https://doi.org/10.29040/ijebar.v5i4.3401
12. https://eprajournals.com/IJMR/article/11313
13. https://ijmra.in/v5i10/25.php
14. https://clutejournals.com/index.php/JABR/article/view/5992
15. https://link.springer.com/chapter/10.1007/978-88-470-1481-7_19
16. https://doi.org/10.22555/pbr.v20i3.573
17. https://sanscientific.com/journal/index.php/rie/article/view/72
18. https://www.emerald.com/insight/content/doi/10.1108/03074350310768454/full/html
19. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2654055
20. https://www.sciencedirect.com/science/article/abs/pii/S0378426619300019?via%3Dihub
21. https://imsciences.edu.pk/files/journals/Vol.%205%20No.%202%20October%202013/(5)%20Risk%20Adjusted%20Performance%20of%20Pakistani%20outline.pdf
22. https://jurnal.stie-aas.ac.id/index.php/IJEBAR/article/view/3401