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A STUDY ON RISK AND RETURN ANALYSIS OF SELECTED MUTUAL FUNDS

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ABSTRACT

This research analyzes the risk and return of several mutual fund categories, including equity, debt, and hybrid funds, and investigates the performance of LIC, SBI, Axis, HDFC, and UTI. The research considers volatility, historical returns, and risk-adjusted performance metrics like the Sortino and Sharpe ratios to assess the effectiveness and reliability of fund managers in returning capital to investors. We also include key macroeconomic indicators, market conditions, and fund-specific features, such as charge ratios and fund management procedures, to provide a comprehensive understanding of how these factors affect mutual fund performance. The major goal of the study is to identify funds that align with an investor's risk tolerance, time horizon, and objectives. By offering practical insights into the risk-reward balance, the study aids both novice and seasoned investors in the mutual fund market in making smarter selections.

INTRODUCTION

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. After deducting all expenses and taxes, the remaining value of a scheme's assets is called its "Net Asset Value" (NAV). After then, the investors receive a portion of the investment's earnings. Mutual funds are basically pools of capital from several investors. This is a simple way to understand what a Mutual Fund Unit is. Just for a moment, picture yourself purchasing a dozen chocolates for ₹40. The four friends nevertheless opt to buy it because the vendor only sells it by the box, 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. They will each receive three chocolates or three units, if we're discussing mutual funds, based on their participation. How does the price of a single unit then come to be? Simply divide the entire amount by the total number of chocolates: You get 3.33 when you divide 40 by 12.

In this case, multiplying the quantity of units (3) and the cost per unit (3.33) would result in an initial investment of 10 ₹. Since each friend gets a share in the box of chocolates, under this arrangement, they are all practically co-owners.

Following this, we must understand the idea of "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. A fund's net asset value (NAV) is the market worth of all its bonds, assets, and shares held on a certain day, after subtracting any permitted fees and charges. On any given day, the market value of all the Units in a mutual fund scheme is the Net Asset Value (NAV) per Unit. It is determined by dividing the valuation of the scheme's Units by the total number of Units that are outstanding.

Mutual funds could be a good option for investors who aren't able to put in a lot of time or money to research the market, but 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. The investment business will take a small percentage of your funds as their fee. There are regulations and limits on mutual fund fees set out by the Securities and Exchange Board of India (SEBI).

One of the world's most impressive savings rates is seen in India. This tendency for wealth growth means that Indian investors should look at mutual funds instead of the more traditional bank FDs or gold. Mutual funds aren't as well-known as they formerly were, which is a shame because their popularity has declined.

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 vast array of schemes offered by the Indian mutual fund sector caters to the needs of a diverse range of investors.

Regular individuals can participate in capital market gains through 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 perform their own study on the fund, factoring in the time horizon and risk-return trade-off. To maximize the return on

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investment (ROI) of mutual funds, investors should diversify their holdings across several asset classes, such as stocks, bonds, and gold.

Anyone can buy and sell stocks and bonds on the market, but a mutual fund has many more benefits and is thus the better choice.

The phrase "mutual fund" describes an investment vehicle that pools the money of several individuals and then invests it in various securities such as equities, bonds, money market instruments, and government bonds.

The capital gathered by mutual fund schemes is invested by professional fund managers in stocks, bonds, and other assets that are in line with the investment goal of the plan. The "Net Asset Value" (NAV) of the scheme determines how the remaining income or profits are distributed to the investors after deducting applicable fees and taxes. Mutual funds get a little charge as payment.

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 study about the Mutual Funds
- To analyze the risk associated with the selected mutual funds
- To evaluate the performance of the selected mutual funds in terms of returns
- To compare the risk and return tradeoff of the selected Mutual funds
- To make suggestions on the findings of the study

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

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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

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

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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,

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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.

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