AN ANALYSIS OF INVESTORS' LONG-TERM ATTITUDE TOWARDS MUTUAL FUNDS BASED ON THOSE FUNDS' PERFORMANCE ON THE NSE (INDIA)

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Abstract

Mutual funds enjoy great appeal among Indian investors since the Indian market is constantly eager to make money with shared interests. Different mutual funds exist in order to maximize profits and cater to varying levels of risk tolerance. (8 Mutual Fund Types, n.d.). A multitude of factors, including higher interest rates, more financial literacy, and a consistent increase in income, are encouraging investors to join mutual fund lobbying. Still, choosing the best mutual funds is a difficult task.(How to Choose the Best Mutual Fund | Mutual Fund Selection, n.d.). Financial gain is the ultimate goal of any investor. One of the primary concerns that investors have is the duration of their investment. How much can they consistently invest? Will the mutual fund provide capital preservation and wealth creation? Does the mutual fund provide any tax advantages? With little initial inputs and the advantage of extensive diversification, mutual funds enable investors to generate healthy returns. Mutual funds are crucial to the financial and economic development of the nation. They transform the savings from individuals into useful industrial capital.

Essentially, the household sector pools mutual funds. One key feature of mutual funds is that their returns might vary as they are not fixed and are dependent on fluctuations in the market. On the other hand, data from 1995 to 2020 indicates that equities mutual funds outperformed other funds in terms of returns.

This study examines the performance of fifteen mutual funds and, with the use of Jenson's alpha and Sharpe ratios, provides information to help investors decide which fund to invest in.

Key Words: Mutual funds, performance, investor, investment, technical analysis.

Introduction

The mutual funds started in India with the enactment of UTI act created by giving permission to small savings division by RBI in the year 1963. It was a joint initiative by RBI and Government of India for the sake of inculcating the investors to invest in equity and other financial instruments of big companies. In 1964, Unit Scheme was initiated and that was the first mutual product which had its monopoly for many years in India (*History of Mutual Funds in India*, n.d.). In 1987 Public sector also entered the mutual funds and LIC, GIC, SBI, Canbank, Punjab National Bank, Bank of Baroda Fund etc. followed them in the mutual fund market. Entry of private sector mutual funds after the liberalization, globalization and privatization was a game changer activity in mutual fund market. The Indian investors got a wide choice to select the best funds for them. Mutual fund regulations were revised in the year 1996 and mutual funds came under the control of SEBI (mutual Fund) Regulations 1996. By January 2003, the mutual funds total assets in India were of Rs. 1,21,805 crores. Out of that the UTI was with Rs. 44,541 crores of assets (*History - Mutual Fund Industry in India | Unit Trust of India*, n.d.). The phase of consolidation started

during the period from 2003 to 2014 where the Uti was split into two different entities i.e., UTI mutual fund which was under SEBI regulations and the Specified Undertaking of UTI. The global economic recession took place in the year 2009, where the mutual funds came to the lowest level and India was also no exception to it. Majority of investors suffered heavy losses. Here SEBI abolished the entry load and lasting repercussions of global economic crisis and the scenario became more tough.("History of Mutual Funds in India | Mutual Funds India | AMFI | SEBI," n.d.) The phase of steady development started from 2014 and this was the time when mutual funds energized due to the progressive measures launched by SEBI from 2012. Due to large number of people investing in mutual funds and simplicity of registration the SIPs got more acceptance form 2017(*Mutual Fund Industry in India - Growth, Size & Share*, n.d.). In today's unexpected financial market, insight for investment is a technical analysis skill which every investor needs before investing in the mutual funds.

Related Literature

Anirudh Sahai and Professor Ravinder Kumar (2020) has stated in their article that Mutual funds are very important for channelizing funds in the country's economic growth and the important role is played by households who invest in mutual funds. While considering Indian scenario, Asset management companies play a mediator since the private sector started in 1993.

Jonathan Berk, Binsbergen and Max Miller in their article "Mutual funds: skills and performance" (2020) discuss that the real time available index suggests the performance of the mutual fund. High quality data on mutual funds can be seen from their cross sections and time series.(Berk et al., 2020).

Shivam Tripathi and Gurudutta (2020) studied about the efficiency of Indian equity mutual funds they studied the large cap, mid cap and small cap open ended funds and realized the risk-return relationship. This study provided the financial performance of SBI blue chip funds, Nippon India small cap, and DSP small cap funds they found the net asset value and total returns investors should examine before investing in these funds.(Tripathi & Japee, 2020)

Md. Meraj Hasan and Syed Khaja Safiuddin (2022) did the analysis of performance of Mutual funds of India using standard performance evaluation with respect to risk-return relationship they did the research for the period of 2015-2020 where they have reviewed the literature provided by the other writers for the risk-return analysis of the ELSS. (Hasan & Safiuddin, 2022)

Avramov and Wermers (2006) researched on American mutual fund market and analysed that those investors who does not predict about the returns in funds as well as management skills heavily depend on index funds and allow for the benchmark returns, they invest their entire wealth on actively managed funds like communication, technology and other industrial sectors.

Fama (1998) realized with his study that efficient market generates various categories of events which give the result that prices overreact to information. In efficient market irregularities randomly split into underreaction and overreaction, they are consistent with market efficiency. In long run returns are irregular in the market.

Malhotra, Mooney, Poteau and Russel (2023) had said in their paper that sector mutual funds allow investor to get exposure to particular segment in the economy that is financial sector. In this investor gain a targeted exposure to financial market. It gives detailed insight into

diversification, asset management risk analysis, etc. these skills are very much required in financial management.

Kale & Panchapagesan (2012) in their article researched that mutual funds existed for more than a century and have played an active role in financial markets in the whole world, and they are small players in Indian market. The interpretation of returns decides the performance of mutual funds in the Indian mutual fund industry.

Javier, Marta and Sabri (2016), suggested that mutual fund industry defends the idea that some mutual fund managers have superior ability to suggest to the investors that which mutual funds will be beneficial to them in the long run on the basis of their prediction on performance of mutual funds and they can even decide on the short term performance of that funds in the financial markets.

Berk & Binsbergen (2015) in their paper in Journal of financial management realized that most important cross-sectional difference in value added in mutual funds can be realized in period of ten years. They found that managerial talent is very important to decide to invest in mutual funds to reap high rewards. If investor has talent, then they can compensate with prediction of future performance.

Statement of problem

The most widely used investment vehicle among the public is mutual funds. The challenge lies in determining which mutual funds offer investors the highest returns. The reliability of mutual funds is determined by their long-term return; nevertheless, many mutual funds exhibit strong short-term gains yet have the potential to fail over time.

Objective of the study

This study's objective is to determine how mutual fund performance is affected by mean, standard deviation, beta, alpha, sharpe ratio, and sortino. This will help determine which mutual funds are best over the long term.

Limitations of the study

Since the information is unrelated to primary sources, it is obtained from websites and secondary sources. When comparing funds, those that have been around for a while are taken into account even though some recently introduced funds have also performed exceptionally well.

Data analysis

For analysing the performance of mutual funds 15 funds are taken randomly and their performance is observed based on mean, standard deviation, Sharpe ratio, Sortino, and Jenson's alpha. Funds are JM Flexicap Fund Flexi Cap, Aditya Birla Sun Life Medium Term Fund Medium Duration, ICICI Prudential Income Optimizer Fund (FOF) Hybrid FoF, Axis Overnight Fund Overnight, Quant Focused Fund Focused, Mahindra Manulife Liquid Fund Liquid, Quant Multi Asset Fund Multi Asset Allocation, Quant Tax Plan ELSS, ICICI Prudential Value Discovery Fund Value Oriented, Aditya Birla Sun Life Floating Rate Fund Floater, HDFC Retirement Savings Fund - Equity Plan Retirement Solutions, HDFC Balanced Advantage Fund Dynamic Asset Allocation, Tata Money Market Fund Money Market, SBI Consumption Opportunities Fund Thematic-Consumption.

On the basis of their performance, they are being analysed and the interpretation is done for the investment preference.

Mutual Fund Performance Measures & Mutual Fund risk

- For the analysis, Mean is calculated based on (Total value of assets-Total value of liabilities)/number of units.
- Standard deviation is used to determine the risk on investment the returns fluctuate every day, so it states how far the actual returns deviate from the expected returns on the past performance.

Formula for standard deviation $\sqrt{(\sum (X-\mu)^2 / N)}$

Formula Explanation

- σ = population standard deviation
- $\sum$ = sum of…
- X = each value
- μ = population mean
- N = number of values in the population

- Sharpe ratio compares the return on investment with its risk. It is useful to determine to what degree volatility works and excess returns are measured in comparison with an investing benchmark. Formula for Sharpe ratio = $R_p – R_f/\sigma_p$

Where:

R_p return of portfolio.

R_f risk free rate

σ_p standard deviation of the portfolio's excess return.

- Sortino ratio is a variation that differentiates harmful volatility from total overall volatility by using the asset's standard deviation of negative portfolio returns. It is useful for investors to evaluate the investment's return. Formula for Sortino ratio= $(R_p -r_f)/\sigma_d$.

Where:

R_p is actual or expected portfolio return.

r_f is risk free return

σ_d is standard deviation of the downside.

- Beta is also known as Beta coefficient, is a measure of volatility, or systematic risk of a security. It is compared to the market as a whole. Is is calculated using regression analysis and represents the tendency of fund's return.

Beta = (Fund return – Risk free rate) ÷ (Benchmark return – Risk free rate)

$(R_f - r_f) / (R_b-R_f)$

- Jenson's alpha is taken to compare the funds among each other. If Jenson's alpha is more than 1.0 it means the fund is considered as outperforming fund.

Formula for Jenson's alpha is

Alpha = R(i) - (R(f) + B x (R(m) - R(f)))

Where:

R(i) = the realized return of the portfolio or investment

R(m) = the realized return of the appropriate market index.

Table 1- Data of mutual funds based on Mean, Standard deviation, Sharpe ratio, Sortino, Beta and Alpha.

Sr. No.	Scheme name	Mean	Standard deviation	Sharpe ratio	Sortino	Beta	Jenson's Alpha
1	JM Flexicap Fund Flexi Cap	28.01	15.46	1.52	3.76	1	6.97
2	Aditya Birla Sun Life Medium Term Fund Medium Duration	13.8	9.48	0.98	8.02	1.39	10.03
3	ICICI Prudential Income Optimizer Fund (FOF) Hybrid FoF	11.29	3.22	2.1	3.91	0.46	4.64
4	Axis Overnight Fund Overnight	4.57	0.44	0.05	0.2	0.83	1.45
5	Quant Focused Fund Focused	25.33	16.01	1.3	2.51	0.88	7.66
6	Mahindra Manulife Liquid Fund Liquid	4.84	0.47	0.63	2.48	0.98	1.98
7	Quant Multi Asset Fund Multi Asset Allocation	25.62	14.5	1.45	2.41	0.56	14.45
8	Quant Tax Plan ELSS	31.56	17.17	1.57	2.52	0.93	11.63
9	ICICI Prudential Value Discovery Fund Value Oriented	27.29	12.15	1.87	3.59	0.77	11.24
10	Aditya Birla Sun Life Floating Rate Fund Floater	5.34	0.85	0.94	1.18	1.44	3.29
11	HDFC Retirement Savings Fund - Equity Plan Retirement Solutions	27.9	13.23	1.76	3.46	0.84	9.43
12	HDFC Balanced Advantage Fund Dynamic Asset Allocation	26.83	13.17	1.69	3.99	0.89	11.64

13	Tata Money Market Fund Money Market	5.28	0.55	1.35	2.47	1.28	2.96
14	Aditya Birla Sun Life Liquid Fund Liquid	4.82	0.48	0.56	1.9	1.03	2.04
15	SBI Consumption Opportunities Fund Thematic-Consumption	30.08	13.9	1.84	3.47	0.75	11.62

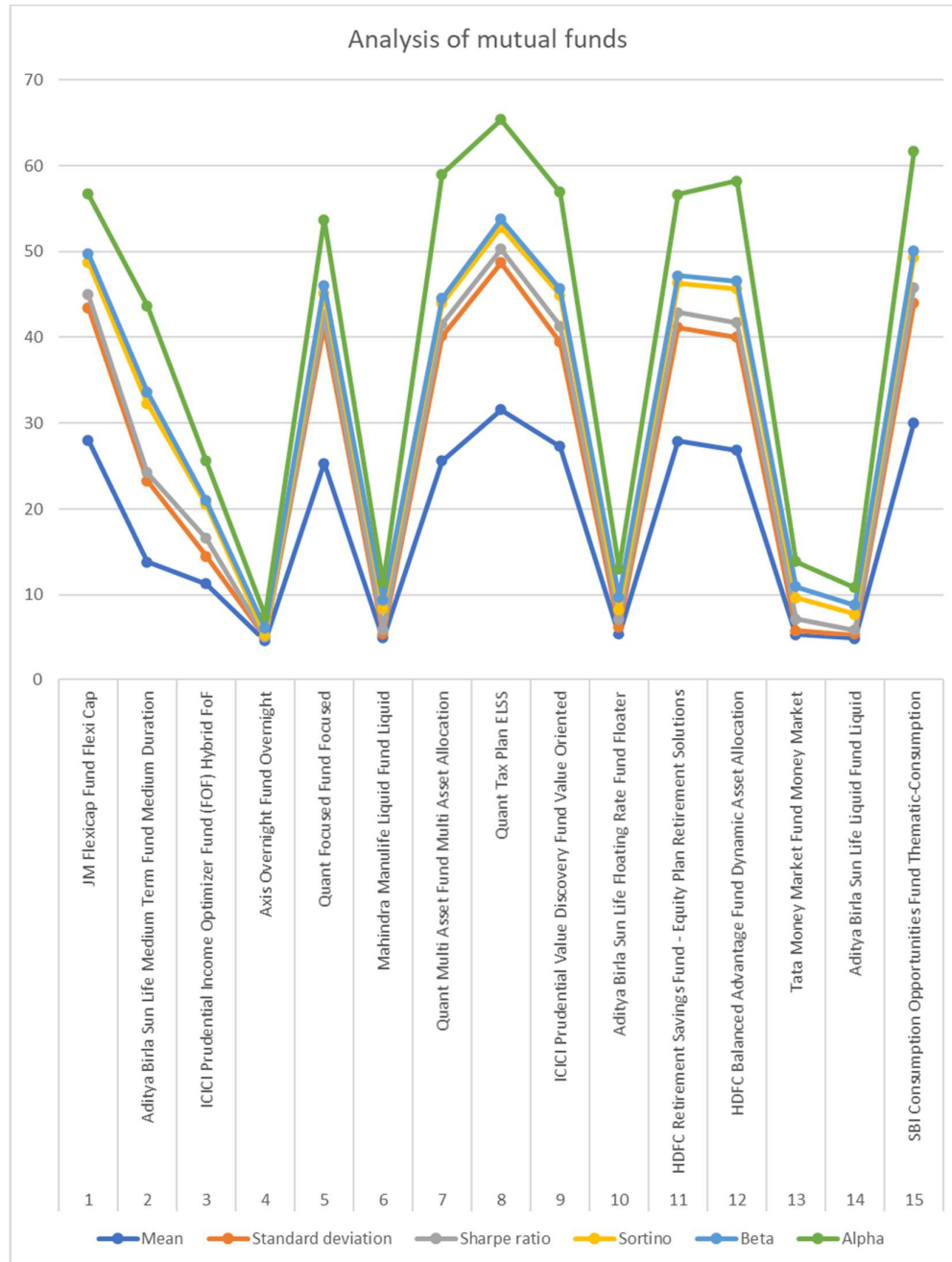(Source: Website information from ET Money, money control, value research)

Diagram 1- analysis of data of table 1.

Table No. 1 is represented in the chart above. The chart illustrates the relative profitability of various funds based on their Sharpe, Sortino, and Alpha ratios. These funds include the JM Flexicap Fund Flexi Cap, Quant Multi Asset Fund Multi Asset Allocation, Quant Tax Plan ELSS, ICICI Prudential Value Discovery Fund Value Oriented, HDFC Retirement Savings Fund - Equity Plan Retirement Solutions, HDFC Balanced Advantage Fund Dynamic Asset Allocation, and SBI Consumption Opportunities Fund Thematic-Consumption. ICICI Prudential Value Discovery Fund Value Oriented, on the other hand, is the category leader. This demonstrates that choosing mutual funds and deciding which one to invest in requires analytical ability.
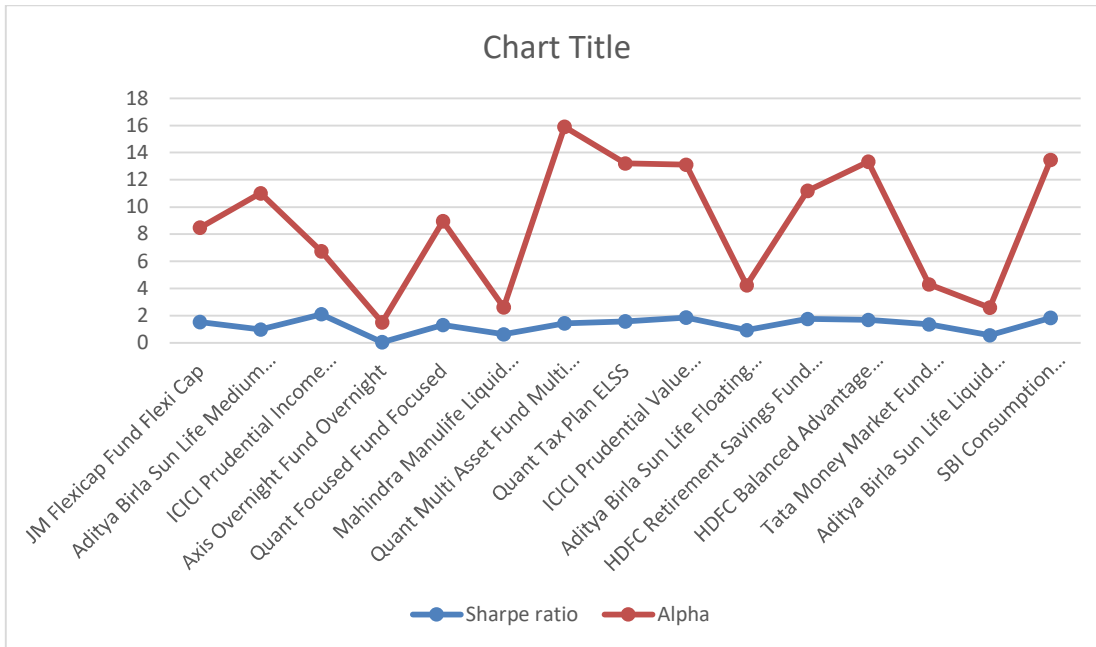
Interpretation
Mutual fund selection is solely based on technical analysis. The ICICI Prudential Value Discovery Fund Value is the top mutual fund in the aforementioned category, according to the Jenson's Alpha and Sharpe ratios. With an alpha of 11.24 and a sharpe ratio of 1.87, this fund is the best among the others.

Findings and suggestions
We can quickly identify the most profitable fund among the aforementioned funds and make an investment in it. The state of the market always affects the risk factor. Before examining the fund's technical aspects, the investor must make an investment. Over an extended period, the fund may find itself in a secure position; however, the fluctuations in the market do not guarantee that the fund will stay in that position. Nonetheless, the investor must exercise patience and confidence in the choice they have made regarding their investment as every investment in the Stock market needs time to grow and provide the investors their desired returns.

This analysis shows that there are no established rules of law or particular accounting guidelines pertaining to mutual funds. The performance of mutual funds is contingent upon market conditions, which are dynamic in nature. Therefore, companies must exercise extreme caution in managing their operations to ensure that their performance meets or exceeds expectations. Future

research can be conducted on a wide range of other funds that have the potential to be profitable and widely accepted by investors.

Conclusion

Mutual funds essentially operate according to standard accounting and profitability principles, with control exercised under SEBI regulations dating back to 1996. They also adhere to the ICAI's accounting standards and GAAP. Since not every investor has the time, expertise, or knowledge to invest in a single scheme, mutual funds serve as the money manager, balancing the portfolio in accordance with investor needs. However, thorough understanding of the invested funds is required.

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