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A comparative study on performance of systematic investment plan of mutual funds in India

Dr.Shabi Raza (Associate Professor)
Department of Commerce, Shia Post Graduate College, Luck now-226020

Abstract
Investors in India's capital market have access to a broad range of venture options, enabling them to engage in a wide range of venture activities while still earning a profit. For financial experts, mutual funds provide the highest returns and the fewest risks of any other financial instrument. Mutual fund schemes have emerged as one of the most responsive investment avenues in India's capital market, resulting in significant speculative growth. As a result of asset management organizations, investors are encouraged to participate in speculating. In the mutual fund sector, there are presently 44 asset management firms (AMCs). This specific circumstance has necessitated close monitoring and assessment of mutual funds. Growth in mutual fund sales has been enormous recently. Both the public and private sectors' roles in advantage management firms will be examined as part of this investigation. We will use factual criteria like beta, standard deviation, Treynor's measure, and the Sharpe ratio to examine the systematic execution of various mutual fund schemes. Investing choices will be made more wisely as a result of this study's results..

Keywords: Mutual Fund, Financial execution, systematic investment plan, Return, Risk, Net Asset Value.

INTRODUCTION

Investments in stocks, bonds, short-term money market instruments, and other assets are made on behalf of several investors in a mutual fund. People who want to save for retirement, as well as those who want to safeguard their assets or make money, have found mutual funds to be a useful tool. An investment trust known as a mutual fund is a trust that combines the funds of several members who all have a same financial aim. An investment in mutual funds may be made by anybody having an investmentable excess of two or three thousand rupees. There are mutual fund companies that pool the money from a large group of people to invest in securities like stocks, bonds and money market instruments or a combination of these assets in order to gain the benefit of growth and have a professionally managed container for protections at moderately low costs. Fund managers, also known as portfolio managers, are responsible for trading the underlying assets of the fund, recording profits and losses, as well as distributing and collecting revenue from dividends and interest on those investments. Investors get a share of the profits. The net asset value (NAV) of a mutual fund share is calculated every day by dividing the fund's absolute value by the number of presently existing shares. To protect one's financial future, the Mutual Fund industry has been more popular in recent years. The Indian economy has benefited from mutual funds, while retail financial advisors have been able to accumulate wealth. The purpose of this article is to provide an evaluation of mutual funds in terms of financial inclusion by analyzing mutual fund industry development. Investors are growing increasingly interested in learning about the benefits of mutual funds as they become more knowledgeable and aware of their investment possibilities. Increased family savings and enhanced investment transmission have resulted in a remarkable expansion of the mutual

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fund industry. In this case, it's critical to keep an eye on the selected mutual funds' performance.

Literature Review

Indian and international mutual fund performance evaluation has been studied extensively.

According to Bansal, Garg, and Saini (2012), a basic market index that provides comparative month-to-month liquidity, returns, systematic and unsystematic hazard, and a complete fund investigation using the unique reference of Sharpe and Treynor's proportion accurately depicts the risk profile of the total mutual fund universe.

Second, Sharpe (1966) illustrates that the anticipated return for a competent portfolio (unsystematic risk) is precisely linked to its risk. A Sharpe index was produced by merging many hypotheses. In this research, he sought to rate the presentation using the best reward-to-inconstancy ratio of an ideal portfolio, a risky portfolio, and a risk-free asset. He was unsuccessful. Because of insufficient management, the unsystematic danger is connected with particular security.

Over a four-year period, Gupta and Sehgal (1998) studied the performance of 80 mutual fund programs (1992-96). The examination looked into fund diversification, consistency of execution, execution parameter, and risk-return link suggestions. The assessment showed that the sample schemes had inadequate portfolio growth and execution consistency.

A portfolio's return may be assessed in relation to its systematic risk, as Treynor (1965) argues. His goal was to grade the mutual fund presentation on a quality scale in a visual manner. The more risky a resource is, the greater its efficiency risk or unpredictability. One line index, Treynor was the result of using a number of ideas.

5. According to RoshniJayam's (2002) study, stocks have a strong potential of being appreciating in the future. Investors should effectively pass judgement on their investing goal and risk appetite choosing plans, according to the expert, diversified equity funds were normally more safe than others, and index funds were the best when market movements were unpredictable. Financial professionals who need monthly income should utilize a Systematic Withdrawal Plan (SWP) with a development option, according to the research.

It was in this context that DubravoMihaljek (2008) concentrated his attention. He's focused on two main issues: Due to fast loan growth and the prospect of a large slowdown or reversal in bank-intermediated capital flows, there is an underestimating of credit risk development.

Market expectations of future value developments may be distinguished from actual returns by using Fama (1972)'s methodologies for finding the best assets at an acceptable risk level. A period-by-period and cumulative evaluation technique was presented by him. Return on a portfolio establishes both the reward for determining security and the return for taking risks, according to him Using current portfolio speculations and market equilibrium as a springboard, he included more conventional notions of superior portfolio management into his commitments.

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Research Methodology

A comparison of mutual fund schemes compared to the market was made in this study for the objective of this research Three different mutual funds were classified and compared with the market based on risk and return in order to satisfy the objectives. In this study, a variety of statistical and financial methodologies are used to assess the performance of these mutual fund plans. These include standard deviation, beta, Treynor and Sharpe proportions as well as other tools and techniques. We used data from many different sources, including sponsoring agencies' yearly reports and online bulletins, journal volumes and journals, pamphlets and newspapers as well as other dispersed and online media. Over a two-year period, the NAV and yearly return of the chosen plan were compared. Using the benchmark return from that time, the schemes were evaluated..

Objectives of the study

This research focuses on evaluating the performance of systematic investment plan of chosen equity mutual fund schemes from various mutual funds operating in India. The following are the study's particular goals:

1. To evaluate the performance of mutual funds using the Sharpe and Treynor models as a guide.
2. To separate the return on security markets from the return on investment funds over the study period.
3. To examine the performance of chosen mutual fund schemes across three major categories.
4. To determine whether mutual funds are capable of rewarding changeability and volatility.
5. To determine whether firm is performing well enough to invest in Mid Cap Mutual Funds.

Data analysis and interpretation

TABLE .1

RATE OF MUTUAL FUND RETURNS IN SELECTED AMC'S FROM 2017 TO 2019

AMC	1M	3M	6M	9M	1Y	2Y
RELIANCE	8.89	-12.8	9.1	24.66	18.94	**81.4**
UTI	-5.8	-15.7	0.17	18.96	8.29	**48.38**
BIRLA	2.52	-16.6	0.47	12.78	5.41	**32.56**

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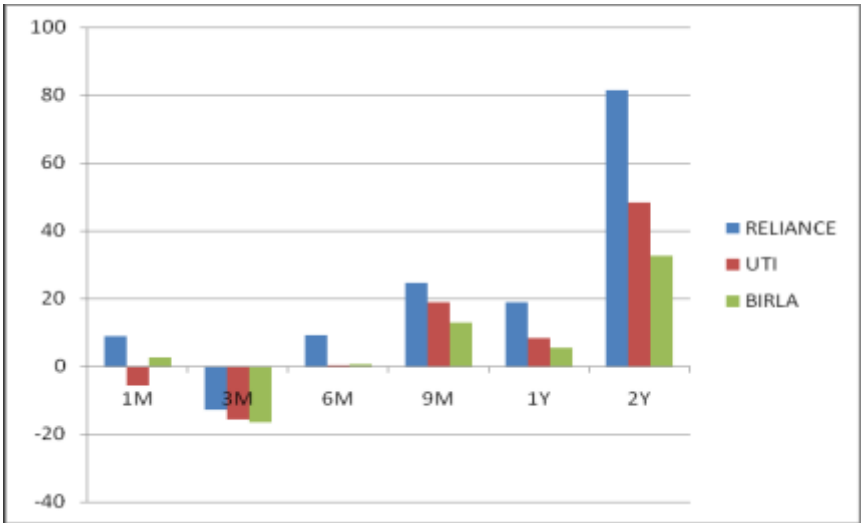
GRAPH .1

RATE OF MUTUAL FUND RETURNS IN SELECTED AMC'S FROM 2017 TO 2019



INTERPRETATION

During the first year, Reliance gives 18.94% and then 81.40% whereas UTI provides 8.29% and then 48.380%..in the second year. As compared to Reliance, which is offering 5.41 percent and 32.56 percent in the first year respectively, Birla provides a lower percentage..

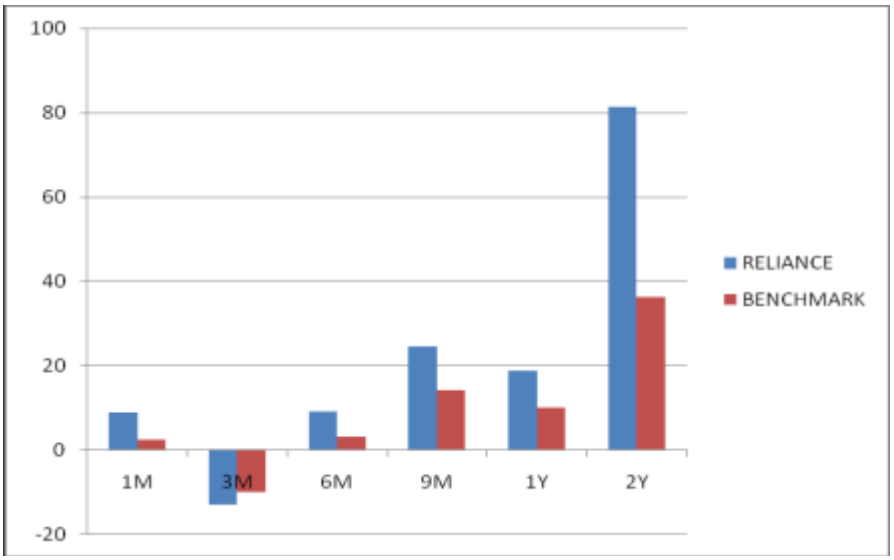
TABLE-2

RATE OF RETURNS OF RELIANCE AND ITS BENCHMARK

AMC	1M	3M	6M	9M	1Y	2Y
RELIANCE	8.89	-12.8	9.1	24.66	18.94	81.4
BENCHMARK	2.44	-9.93	3.29	14.21	10.03	36.32

GRAPH -2

RATE OF RETURN OF RELIANCE AND ITS BENCHMARK



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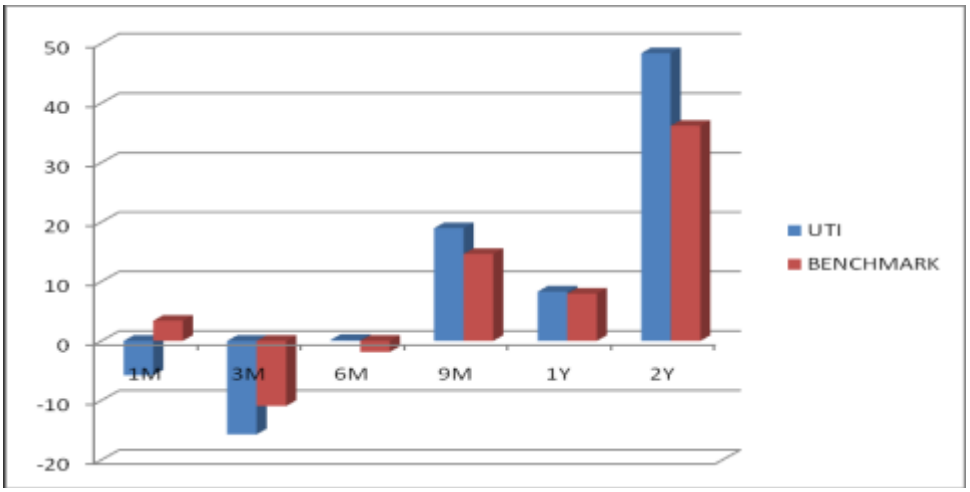
INTERPRETATION

When compared to its benchmark, Reliance returns 18.94 percent and 81.4 percent in the first year, respectively..

TABLE-3
RATE OF RETURN OF UTI AND ITS BENCHMARK

AMC	1M	3M	6M	9M	1Y	2Y
UTI	-5.8	-15.71	0.17	18.96	8.29	48.38
BENCHMARK	3.388	-10.94	-1.86	14.63	7.95	36.16

GRAPH-3
RATE OF RETURN OF UTI AND ITS BENCHMARK



INTERPRETATION

8.29 percent in the first year and 48.38 percent in the second year, compared to 7.95 percent in the first year and 36.16 percent in the second year, offered by UTI. That UTI's Benchmark Returns are Lower than Expected is clear from this research..

TABLE-4
RATE OF RETURN OF BIRLA AND ITS BENCHMARK

AMC	1M	3M	6M	9M	1Y	2Y
BIRLA	2.52	-16.6	0.47	12.78	5.41	32.56
BENCHMARK	2.44	-9.93	3.29	14.21	10.03	36.32

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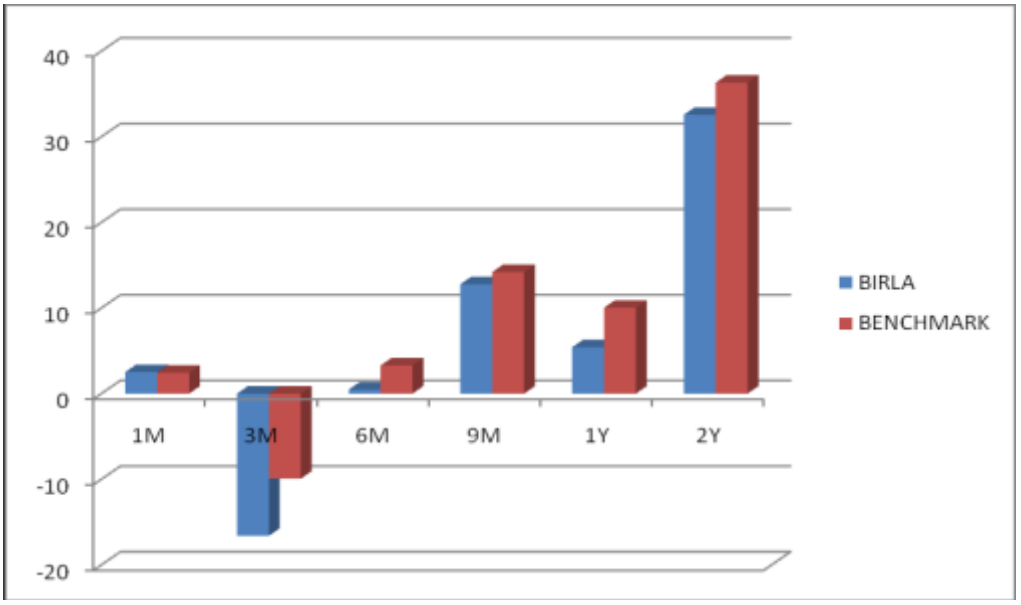
GRAPH-4
RATE OF RETURN OF BIRLA AND ITS BENCHMARK



INTERPRETATION

Birla is offering 5.41 percent in the first year and 35.56 percent in the second, compared to 10.03 percent in the first year and 36.32 percent in the second. We can deduce from this that BIRLA provides lesser returns than its Benchmark.

TABLE -5
ARITHMATIC MEAN, VARIANCE AND STANDARD DEVIATION

AMC & BENCHMARK	ARITHMATIC MEAN %	VARIANCE	STANDARD DEVIATION
RELIANCE	50	975.31	31.22
UTI	28	400.9	20.02
BIRLA	19	184.28	13.57
S&P CNX NIFTY	23	172.82	13.15
BSE100	22	198.45	14.1

AM (RELIANCE) = (18.94+81.40)/2=50
AM (UTI) = (8.29+48.38) /2=28
AM (BIRLA) = (5.41+32.56) /2=19
AM (NIFTY) = (10.03+36.32) /2=23
AM (BSE100) = (7.95+36.16) /2=22

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TABLE-6
SYSTEMATIC RISK ANALYSIS OF RELIANCE

YEAR	S&P CNX NIFTY RETURNS(X)	RELIANCE RETURNS(Y)	XY	X^2
2017-18	10.03	18.94	189.97	100.6
2018-19	36.32	81.40	2956.5	1319.1
TOTAL	46.35	100.34	3146.47	1419.7

TABLE-7
SYSTEMATIC RISK ANALYSIS OF UTI

YEAR	S&P CNX NIFTY RETURNS(X)	UTI RETURNS(Y)	XY	X^2
2017-18	7.95	8.29	65.91	63.2
2018-19	36.16	48.38	1749.4	1307.6
TOTAL	44.11	56.67	1815.3	1370.8

TABLE-8
SYSTEMATIC RISK ANALYSIS OF BIRLA

YEAR	S&P CNX NIFTY RETURNS(X)	BIRLA RETURNS(Y)	XY	X^2
2017-18	10.03	5.41	54.26	100.6
2018-19	36.32	32.56	1182.6	1319.1

INTERPRETATION

RELIANCE: Reliance's two-year average rate of return is 50%. For the past two years, the average risk rate has been 31.22 percent.

UTI: The average rate of return for a two-year UTI is 28%. The two-year average risk rate is 20.02 percent.

BIRLA: The average rate of return over two years for BIRLA is 19 percent. The two-year average risk rate is 13.57 percent.

S&P CNX NIFTY: The S&P CNX NIFTY has a two-year average rate of return of 23 percent. For the past two years, the average risk rate has been 13.15 percent.

BSE100: The BSE100 has a two-year average rate of return of 22%. For the past two years, the average risk rate has been 14.10 percent.

TABLE-9
SYSTEMATIC RISKS OF RELIANCE, UTI AND BIRLA USING BETA

AMC	BETA
RELIANCE	2.38
UTI	1.42
BIRLA	1.033

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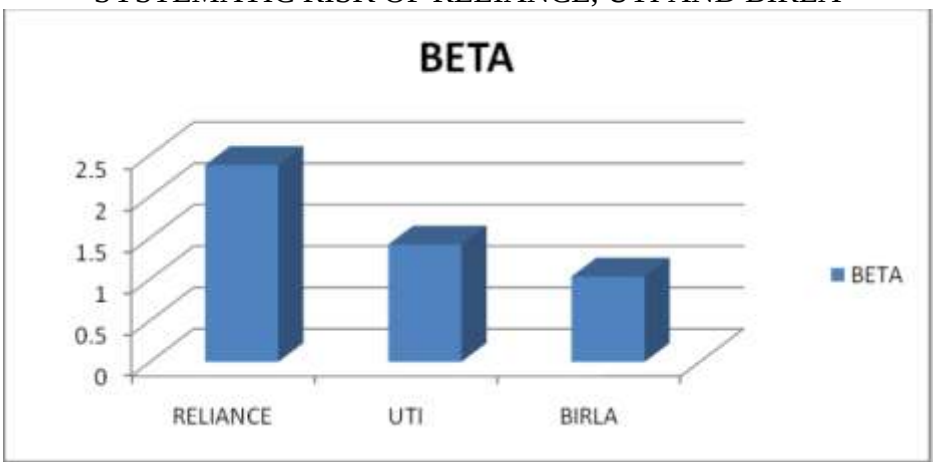
GRAPH -9
SYSTEMATIC RISK OF RELIANCE, UTI AND BIRLA



Interpretation

RELIANCE: Reliance's Beta is 2.38, which means it performs twice as well as its benchmark. RELIANCE is thus offering Rs.138 more per Rs.100 than its benchmark returns.

UTI: UTI has a Beta of 1.42, which means that it performs moderately better than its benchmark. It indicates that for every Rs.100 invested, UTI is returning Rs.42 more than its benchmark.

BIRLA: BIRLA's Beta is 1.033, which means it performs twice as well as its benchmark. It means that for every Rs.100 invested, RELIANCE is returning Rs.33 more than its benchmark.

TREYNOR's RATIO ANALYSIS OF RELIANCE AND SELECTED AMC'S

Reliance Treynors ratio = (50-7)/2.38=18.06
UTI Treynors ratio = (28-7)/1.42=14.78
Birla Treynors ratio = (19-7)/1.033=11.65

TABLE-10
TREYNORS RATIO OF RELIANCE, UTI AND BIRLA

AMC	TREYNORS
RELIANCE	18.06
UTI	14.78
BIRLA	11.65

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GRAPH -10
TREYNORS RATIO OF RELIANCE, UTI AND BIRLA

INTERPRETATION

RELIANCE: The Treynors ratio is 18.06, which is higher than the UTI of its chosen AMC. Treynors has a ratio of 14.78, which is slightly lower than Reliance BIRLA: Treynors ratio is 11.65, which is less than RELIANCE and UTI.

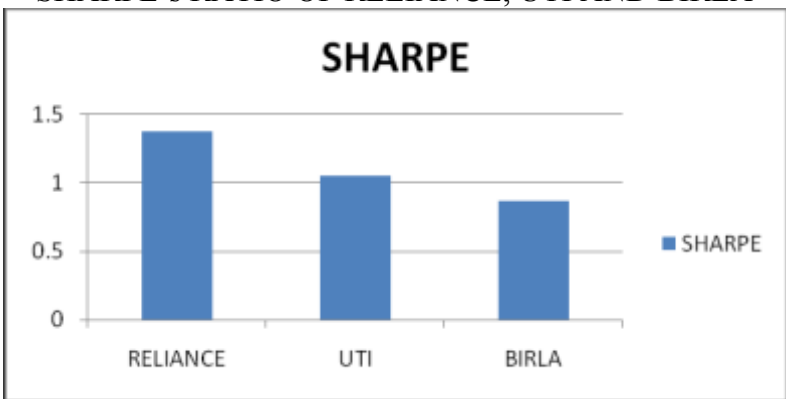
SHARPE's RATIO ANALYSIS OF RELIANCE AND SELECTED AMC's

Reliance Sharpe's ratio= (50-7)/44.17 = 0.97
UTI Sharpe's ratio= (28-7)/28.35 = 0.74
Birla Sharpe's ratio= (19-7)/19.2 = 0.625

TABLE-11
SHARPE's RATIO OF RELIANCE, UTI AND BIRLA

AMC	Sharpe ratio
RELIANCE	1.38
UTI	1.05
BIRLA	0.87

GRAPH-11
SHARPE's RATIO OF RELIANCE, UTI AND BIRLA



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INTERPRETATION

For Reliance, the Sharpe ratio is 1.38, which indicates that its performance is better than that of other AMCs. Although Reliance has a little higher Sharpe ratio, UTI has a slightly lower Sharpe ratio (1.05) BIRLA: There is a lower Sharpe ratio of 0.87 compared to Reliance and UTI.

FINDINGS

When it comes to one-month returns, the Benchmark and the other two AMCs behind RELIANCE by 8.89 percent. UTI has lost money in the first month of the year and is below the BSE 100 index. BIRLA's benchmark, the C&P SNX Nifty, yields 2.52% higher than BIRLA.

AMCs and Benchmarks on the S&P CNX Nifty had one-month returns of RELIANCE 9.10 percent, UTI 0.17 percent and BIRLA 0.47 percent.

1.86 percentage points less than the 3.29-percent target a BSE score of 100 Consequently, we may infer that RELIANCE outperforms its Benchmark and the other two AMCs in this regard. UTI and BIRLA both provide services that fall short of the industry standard.

RELIANCE had a one-year return of 18.94 percent. Reliability's Benchmark and the other two AMCs are outperforming RELIANCE in terms of investment returns. The return on UTI is higher than the benchmark, whilst the return on BIRLA is lower than the benchmark.

The two-year return of RELIANCE is larger than that of its benchmark and the other two AMCs, at 81.40 percent. While BIRLA has a lesser return than its benchmark, UTI has a bigger return.

There is a 44.17 percent standard deviation associated with RELIANCE's risk. The probability of getting a UTI has a 28.35 percent standard deviation. Standard deviation for Birla is 19.2 percent. So we might conclude that RELIANCE is a riskier investment that pays off in the long run. UTI provides medium returns with medium risk, while BIRLA provides lower returns with reduced risk. – UTI

The beta versions of each AMC are RELIANCE 2.38, UTI 1.42, and BIRLA 1.033. UTI is doing better than its benchmark, while BIRLA is doing about the same as its benchmark, according to our findings.

In terms of Sharpe ratios, RELIANCE has 0.97, UTI has 0.74, and BIRLA has 0.63. RELIANCE has a higher Sharpe ratio than the other two AMCs, which reflects how well a fund performs.

Conclusion

For future mutual fund systematic investment plan performance reviews, the findings of this research will serve as the basis. Researchers were able to learn about various mutual fund SIPs, the market, and which fund in a pool of mutual funds was the best performer thanks to this study.. An individual investor was given advice on the best mutual fund company by a professional. In order for investors to contribute to the proper mutual fund categories, the performance of mutual funds is measured using a range of performance assessment approaches, including Ranking, the average return, standard deviation, and the Sharpe Ratio..

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