

Performance Analysis of Selected Mutual Fund Schemes: A Case Study

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Abstract: *This study aims to evaluate the performance of selected mutual fund schemes offered by Aditya Birla Sun Life Mutual Fund. By leveraging secondary data from April 2022 to March 2023, this research analyzes the Net Asset Value (NAV) and corresponding returns of five mutual fund schemes. Utilizing statistical tools and the Sharpe Index Model, the study assesses risk-adjusted returns to rank the schemes and provide insights into their relative performance. The findings serve as a valuable resource for individual investors, organizations, and regulators, facilitating informed investment decisions and highlighting market trends. The research underscores the significance of mutual funds as a viable investment vehicle for diverse portfolios and examines the efficacy of specific schemes in achieving their investment objectives.*

Keywords: Mutual Funds, Performance Analysis, Aditya Birla Sun Life Mutual Fund, Net Asset Value, Sharpe Ratio, Risk-Adjusted Returns, Investment Decisions, Financial Market, Secondary Data.

I. INTRODUCTION

A mutual fund is an investment fund that is managed professionally by an investment company which pools money from several investors to establish an investment portfolio that invests in an assortment of securities. These securities can comprise of stock, fixed income securities such as bonds, money market instruments, and even others. The money committed by each investor goes in its percentage of some or all the mutual fund's assets. There are paid skilled managers who manage the mutual fund, make decisions so as to meet the goals of a mutual fund.

Types of Mutual Funds

The various Mutual fund kinds that are offered on the market include:

1. Equity Funds: Particularly, these funds focus on stocks or equities of companies. It lets them narrow down if they wish to invest in certain sectors (for example, technology or healthcare sector) or whether they have a preference for a particular market capitalization size (big, mid, small, etc.). Equity funds look to achieve returns in the capital and with the intention of earning higher returns in the longer like.

2. Bond Funds: More commonly referred to as fixed interest funds, the bond funds consist of bonds and other money debts which are in the process of being offered by the state or other local government bodies, a municipal, company, or any other organization. These funds mainly seek to offer steady income in form of interests and may also have the possibility of focusing on capital.

3. Money Market Funds: A money market fund is a sum of money invested in very short-term callable securities with minimal risk and/or, if permitted, limited direct (reverse) repurchase agreements with a bank, Governments treasury bills and notes, corporation commercial papers, certificate of deposits, and etc. It involves financial funds that created to provide stability and liquidity to your financial resources and that will give somewhat higher yield than for ordinary deposit.

4. Balanced or Hybrid Funds: These are mid-risk portfolios that include a combination of fixed income and equity assets, as well as investments in both equities and fixed income instruments. The proportions which are invested in the equity and the debt can also differ from one fund to the other based on the fund's characteristics and risk factors. These funds have the objectives to generate both income and capital gains with doing so in a way that limits the risks inherent in the process through diversification.

5. Index Funds: Its main goal is to replicate the performance of a certain index, such as the FTSE 100 or S&P 500. These funds track with the actual index in that they buy the same stocks that constitute the index in the same ratios to ensure their returns mirror that of the index under consideration. Index funds are generally cheaper because passive management of the funds is implemented.

6. Sector Funds: Sector funds limit their investment exposure to companies in a particular area of economic activity like the IT services, Health-care, energy, or the finance industry. These funds may deliver higher Returns on Assets but have a higher associated sector risks compared to industry funds.

7. Specialty Funds: Sector-specific funds are those that focus on investing in specific industries or a certain topic that could hardly be classified into the other categories of a fund. Some of among them are trusts for real estate investment, or real estate investment funds. commodity funds, socially conscious or responsible investment funds (Environment friendly and socially responsible investment funds) and international or global funds.

8. Target-Date or Lifecycle Funds: They come in varieties such as target-date or lifecycle to suit investor needs with retirement or saving objectives. These funds usually have a target date, which is often retirement and with this, the balance of the funds shifts towards the more conservative as the retirement date approaches. Generally, they consist of stocks, bonds, and other securities but can also incorporate real estate among other forms of investments.

9. Fund-of-Funds: Instead of purchasing the securities directly, fund-of-funds also makes investments in other mutual funds. These funds can provide both in terms of an investment division across several mutual funds selected by varying investment managers or across several forms of asset classes.

Regulation and Oversight

Regulation and oversight are essential in guaranteeing the transparency, integrity, and protection of investors in mutual funds. Here's an overview of how mutual funds are regulated and overseen:

1. Regulatory Framework: In the nations where they do business, mutual funds are subject to regulatory authorities or government agencies. For instance, the Securities and Exchange Commission (SEC) oversees the administration of the Investment Company Act of 1940, which serves as the main regulatory framework for mutual funds in the United States.²

2. Registration Process: Before mutual funds can offer their shares to the public, they must register with the regulatory authority in their jurisdiction. In order to complete the registration procedure, you must submit a prospectus, which is a document that contains comprehensive disclosures about the investment objectives, strategies, risks, fees, and other pertinent information of the fund.

3. Disclosure Requirements: Mutual funds are required to provide comprehensive and timely disclosures to investors. This includes regular reporting of financial statements, holdings, performance data, expenses, and material changes to the fund's operations. Prospectuses and annual reports are key documents that provide transparency and help investors make informed decisions.

4. Investment Restrictions and Guidelines: Regulatory authorities impose investment restrictions and guidelines to protect investors and maintain market stability. These may include limits on the types of securities a fund can invest in, diversification requirements, leverage restrictions, and rules governing the use of derivatives and other complex financial instruments.

5. Fund Governance: Mutual funds are typically structured as trusts or corporations with a trustee or the board of directors in charge of managing the fund's activities and defending the interests of its investors. Independent directors and trustees, who have no connection to the fund management, are an essential part of the board's governance and oversight functions.

6. Compliance Monitoring: Regulatory authorities conduct ongoing monitoring and inspections of mutual funds to guarantee adherence to relevant laws, rules, and industry standards. This comprises reviewing fund activities, performance metrics, advertising materials, and adherence to fiduciary responsibilities.

7. Protection of Investor Interests: Regulatory oversight aims to protect investor interests by enforcing fair dealing practices, preventing fraud and misconduct, and promoting market transparency. Investors have recourse to regulatory bodies in cases of disputes, mismanagement, or violations of securities laws.

8. Enforcement Measures: Regulatory bodies possess the power to implement measures to prevent mutual funds and their personnel for violations of securities laws or regulations. This may include fines, penalties, sanctions, or legal proceedings to address misconduct and safeguard investor assets.

9. International Regulation: Mutual funds operating across borders may be subject to regulatory frameworks in multiple jurisdictions. International cooperation and regulatory harmonization efforts help ensure consistent standards and protections for investors globally.

II. REVIEW OF LITERATURE

The literature on mutual funds provides a comprehensive understanding of their performance, management, and evaluation.

Prajapati and Patel (2012) analyzed Indian mutual funds from January 2007 to December 2011 using various performance measures, including the Sharpe ratio, Treynor ratio, and Jensen's measure. Their findings suggest that most mutual funds delivered positive returns, indicating favorable performance across the analyzed period.

Thakkar (2017) described mutual funds as pooled investments that offer diversified exposure to capital markets, benefiting from low costs and accessibility. The study analyzed mutual funds from August 2014 to July 2019, using benchmarks like BSE SmallCap TRI to evaluate annualized returns and standard deviation. The research underscores the effectiveness of equity-diversified funds as alternatives to direct stock market investments.

Ahmad and Alsharif (2019) conducted a comparative study of Islamic Mutual Funds (IMF) and Conventional Mutual Funds (CMF) in Saudi Arabia, utilizing Sharpe, Treynor, and Jensen's measures to evaluate risk-adjusted performance. Their findings revealed mixed results, with IMF performing better on the Sharpe ratio but both types showing significant selectivity and market timing.

Samanta (2019) explored the significance of mutual funds in the financial market, highlighting their role in pooling investor savings for collective investment. The paper analyzed various mutual fund schemes using parameters such as the Treynor and Sharpe ratios, providing insights into the current and future status of the Indian mutual fund industry and aiding investor decision-making.

Vohra, Srivastava, and Verma (2023) reviewed mutual fund performance through a visualization analysis of 152 articles from 2002 to 2022. Their study identified gaps in investment performance evaluations and emphasized the evolving nature of research in mutual funds, aiming to enhance understanding of performance factors and investor behavior.

Swami and Jain (2022) discussed challenges in mutual fund research and proposed improvements. They reviewed previous research on mutual funds, focusing on performance evaluation and sector challenges, to guide future research directions.

Chauhan, Kataria, and Dhand (2020) evaluated the performance of 20 mutual fund schemes from 2005 to March 2015. Their analysis, based on monthly NAV adjustments, indicated that while some schemes performed better than the market, many were underperformers compared to fixed deposits and direct equities.

Safuiddin and Hasan (2022) reviewed empirical studies on equity-based mutual funds in India, synthesizing findings to provide a broad overview of investment trends, goals, and performance. Their review assists researchers in understanding the evolving landscape of equity mutual fund investments.

Kaur and Bala (2018) highlighted trends and advancements in mutual funds, focusing on performance appraisal, investor perceptions, and sector-specific investments. Their review covered historical development and performance evaluation, reflecting the growing preference for mutual funds due to perceived tax advantages and growth potential.

P. K., K. H., and A. D. (2022) analyzed the returns of small-cap and market-cap mutual funds in India from 2013-2014 to 2021-2022. Using statistical measures like Jensen Alpha and Sharpe Ratio, their study concluded that mutual funds generally offer lower risk and better returns compared to other securities, emphasizing the importance of performance evaluation in the Indian financial context.

Need of the Study

A mutual fund on the other hand is an investment vehicle referred to as a trust whereby several investors invest their pooled resources, such as; their savings among other funds, towards the same objectives yet individual. Depending with

the objective of the scheme in force, the fund manager uses the funds to purchase various securities. These could consist of shares, debentures, and money market item's Depending on how many units they own in the scheme, unit holders split the returns from these assets as well as any capital gains on them. For the average investor, a mutual fund is therefore the best option. Investor as it gives him a cheap method to get exposure to a well-managed diversified portfolio. Like any other Mutual fund scheme, there is focus and target on investments in every scheme. Therefore, it is the main goal of this investigation to assess the efficacy of specific schemes of mutual fund.

Scope of The Study

The analysis of the performance of Aditya Birla Sun Life Mutual Fund is a useful for individual investors can help in making wise investment decisions with regard to goals and risk-taking ability. The others embrace it as the way to advise on the best investment opportunities depending on the company's track and the strategies employed. Many organizations get relevant information concerning their market position and tendencies. Regulators ensure that certain standards are met and partake in research on the specific industry.

Objectives of the Study

- To study the performance of selected mutual fund
- To find the average rate of return of selected mutual fund
- To analyse the knowledge about mutual funds offered by the selected companies.
- To know the preference of investors on mutual fund investment.

III. RESEARCH METHODOLOGY

Research is fundamentally an investigative process aimed at acquiring information to address specific problems. The methodology behind research encompasses the systematic approach used to solve these problems, focusing on the science of research methods themselves.

Data Collection:

The data collection process begins once a research problem is defined. Researchers must choose an appropriate method for gathering data, which generally falls into two categories:

Primary Data: Collected directly from respondents, this type of data is original and specific to the research problem. It includes firsthand information gathered through methods such as surveys, interviews, or experiments.

Secondary Data: Obtained from external sources, secondary data includes information previously collected and published, such as books, articles, reports, and web sources. This data is utilized to complement or support the primary data.

In this study, secondary data from various sources such as web links, books, newspapers, and research papers was collected. For the analysis of mutual fund performance, the Net Asset Value (NAV) and corresponding returns for five mutual fund schemes from April 2022 to March 2023 were compared. This approach provided a general overview of their performance over the past year.

Procedural Methods:

The study employed several procedural methods for analysis:

Statistical Tools: Descriptive statistics, percentages, and various indices were used to analyze and compare the performance of different mutual fund schemes.

Sharpe Index Model: This model was applied to evaluate and rank the mutual fund schemes in terms of their risk-adjusted returns. The Sharpe Ratio helps determine how well the mutual fund compensates investors for taking on risk, providing insights into the relative performance of the schemes.

IV. DATA ANALYSIS AND INTERPRETATION

Table 1. Birla Sun Life Equity Fund (Growth) Average Rate of Return

Month	Net Assets Value	Monthly Return
Apr-22	123.90 - 193.76	48.3132
May-22	193.76 - 205.43	6.3507
Jun-22	205.43 - 204.66	-0.394
Jul-22	204.66 - 219.34	11.1374
Aug-22	219.34 - 219.34	0
Sep-22	219.34 - 231.95	7.2175
Oct-22	231.95 - 223.08	-3.8241
Nov-22	223.08 - 239.77	7.4819
Dec-22	239.77 - 252.08	5.1341
Jan-23	252.08 - 241.77	-4.09
Feb-23	241.77 - 237.14	-1.917
Mar-23	237.14 - 252.91	6.6501
Average Rate of Return		6.84%

Calculation of Sharpe Index:

$$\text{Sharpe Index} = \frac{\text{Portfolio average return} - \text{Risk free rate of return}}{\text{Standard Deviation}}$$

$$S_t = \frac{R_p - R_f}{\sigma_p}$$

$$S_t = \frac{6.84\% - 3.55\%}{13.39}$$

$$S_t = 0.235$$

Table 2. Birla Sun Life Income Fund (Growth) Average Rate of Return

Month	NAV's	Returns of Monthly
Apr-22	32.0807 - 31.9038	-0.5514
May-22	31.9038 - 32.3046	1.256
Jun-22	32.3046 - 33.0634	2.349
Jul-22	33.0634 - 32.8130	-0.7574
Aug-22	32.8130 - 33.0590	0.7498
Sep-22	33.0590 - 33.3737	0.9521
Oct-22	33.3737 - 33.9136	1.6197
Nov-22	33.9136 - 33.7814	-0.3899
Dec-22	33.7814 - 33.8418	0.1982
Jan-23	33.8417 - 33.7850	-0.1973
Feb-23	33.7850 - 33.7850	0
Mar-23	33.7850 - 33.9644	0.531
Average Rate of Return		0.48%

$$S_t = \frac{R_p - R_f}{\sigma_p}$$

$$S_t = \frac{0.48\% - 3.55\%}{0.942}$$

$$S_t = -3.259$$

Table 3. Birla Sun Life Tax Plan (Growth) Average Rate of Return

Month	NAV's	Returns of Monthly
Apr-22	7.14 - 8.66	21.3194
May-22	8.66 - 10.67	23.2371
Jun-22	10.67 - 10.29	-3.5648
Jul-22	10.29 - 11.45	11.2841
Aug-22	11.45 - 11.45	0
Sep-22	11.45 - 12.20	6.556
Oct-22	12.20 - 11.43	-6.3197
Nov-22	11.43 - 12.25	7.1904
Dec-22	12.25 - 12.88	5.1472
Jan-23	12.88 - 12.16	-5.5945
Feb-23	12.16 - 12.10	-0.4939
Mar-23	12.10 - 12.86	6.2863
Average Rate of Return		5.42%

$$S_t = \frac{R_p - R_f}{\sigma_p}$$

$$S_t = \frac{5.4199\% - 3.55\%}{9.60}$$

$$S_t = 0.1947$$

Table

4. Comparative Interpretation of the Funds' Performance

Schemes	ARR	Sharpe Calculation (Ratio)	Ranking
Birla Sun Life Equity Fund-Growth	6.8383 %	0.236	I
Birla Sun Life Income Fund -Growth	0.4806 %	-3.260	III
Birla Sun Life Tax Plan (Growth)	5.4209 %	0.2047	II

CROSS TABULATION

NOTE: - Cross-tabulation analysis is used to determine the proportion of investors across different age and class categories that Favor mutual funds over alternative investment options.

Table 5. Age Wise Break up of "Service-Pvt" Class Respondents

Service Class	20-30	30-40	40-50	50-60	>60	Total
Equity Market	5	6	1	0	0	12
Mutual Funds	9	8	2	0	0	19
Govt. Bonds	0	0	0	0	0	0

Real Estate	0	1	0	0	0	1
Bank Fixed Deposits	3	1	0	0	0	4
Post Office	0	1	0	0	0	1
Life Insurance	4	1	1	0	0	6
Total	21	18	4	0	0	43

Interpretation

The table given below sheds light on the distribution of service class people by The Better Investment. It proves that equity markets & mutual funds are the most favourite investment being selected by 12 and 19 participants nearly the age of 20-40. Some participants also invest in other related opportunities such as bank fixed deposits and life insurance. Curiously, no representation of the governmental bonds and properties are reported across all ages of respondents included in the study. Evidently from this data, the service class looks to be inclined towards equity-based investments possibly due to possible yields and ergo relative to fixed deposits or even government securities.

Table 6. Age wise break up of “Service – Govt.” Class respondents

Professional	20-30	30-40	40-50	50-60	>60	Total
Equity Market	0	2	2	0	0	4
Mutual Funds	3	4	5	0	0	12
Govt. Bonds	0	0	0	0	0	0
Real Estate	0	0	5	0	0	5
Bank Fixed Deposits	3	0	4	1	0	8
Post Office	0	0	0	0	0	0
Life Insurance	0	1	0	0	0	1
Total	6	7	16	1	0	30

Interpretation

Volume data of the professionals in the age wise distribution show that investment profile is not homogenous across the professionals. Leading by popularity Mutual funds records the major turn out of the people in different age groups, this account for total 12 people. Real estate is revealed to have a higher index among the age group of 40-50, this is an indication of long-term business involvement with this demography. Fixed deposits at the banks are preferred by the population in the age group within the 40–50 years, which proves the rather conservative attitudes toward savings. Post office saving schemes are not very popular and similarly the demand for government bonds is not very high either. This distribution shows different risk tolerance levels and the way how different planning professionals saves his/her money: young people are probably still students; middle aged people have stable income and save more; the rest, especially those being older than 50, seriously may not have much to save, or may have a lot of liabilities; the most popular form of investment here is mutual fund, which can offer some high potential returns and diversification benefits.

Table 7. Age Wise Break up of “Business” Class Respondents

Business Class	20-30	30-40	40-50	50-60	>60	Total
Equity Market	4	3	0	0	0	7
Mutual Funds	3	6	3	0	0	12
Govt. Bonds	0	0	0	0	0	0
Real Estate	1	4	3	0	0	8
Bank Fixed Deposits	1	2	1	5	0	9
Post Office	2	2	4	0	0	8
Life Insurance	0	0	0	0	0	0
Total	11	17	11	5	0	44

Interpretation

Therefore, the analysis on the business class depicts a diversified investment pattern by ages. Equity markets and mutual funds received much attention, and both of them have 7 and 12 participants separately in this survey and mainly involved the young and middle-aged people. Some other common investment plans are Real estate and bank fixed deposits as these are actually preferred more by the people who fall in the age bracket of 30-50 years indicating more towards the fixed income and secure options of investment. Amongst the post officeschemes, operated across all sanctioned age groups, it revealed the confidence placed by the respondents on government savings. For instance, life insurance does not feature at all, which can indicate that relatively few business class people invest in risk management tools.

Table 8. Age wise break up of “Retired” Class Respondents

Retired Class	20-30	30-40	40-50	50-60	>60	Total
Equity Market	0	0	0	0	0	0
Mutual Funds	1	2	1	0	0	4
Govt. Bonds	0	0	0	0	0	0
Real Estate	6	4	0	1	0	11
Bank Fixed Deposits	0	3	2	1	0	6
Post Office	2	4	0	2	1	9
Life Insurance	0	0	0	0	3	3
Total	9	13	3	4	4	33

Interpretation

The findings of the research on the retired class suggest that investment is a cautious process where the majority focused on investing in real estate, bank fixed deposits and post office schemes. Real estate stands out as the most preferred asset through people especially the retirement age group of 30-60 years expressing to depend on property to generate income and wealth. Bank fixed deposits and post office schemes are also popular, which underlines a rather conservative outlook on the savings with guaranteed returns. Even the public uptake of mutual funds and life insurance is low and this depicts a rather risk-averse population that is more inclined towards investing in more secure financial products than those which are linked to the market. Altogether, it is distinguished by the focus on the effective management of financial resources and regular income generation for retirement life.

V. FINDINGS

The Birla Sun Life Equity Fund has the highest average rate of return among the three funds, at 6.84%. This indicates a strong performance in terms of returns over the evaluated period.

The Sharpe ratio of 0.236, while positive, is relatively low. This suggests that while the fund has a decent return, the risk-adjusted return is modest. Investors are getting a reasonable return for the level of risk taken, but there is room for improvement.

The Birla Sun Life Income Fund has the lowest average rate of return at 0.48%. This indicates poor performance in terms of returns compared to the other funds.

The negative Sharpe ratio of -3.260 suggests that the fund has underperformed relative to the risk-free rate and that the returns are not compensating for the risk taken. This indicates very poor risk-adjusted performance and might be less attractive to investors.

The Birla Sun Life Tax Plan has an average rate of return of 5.42%, which is the second highest among the funds. This indicates good performance in terms of returns.

The Sharpe ratio of 0.2047 is slightly lower than the Equity Fund's ratio but still positive. It indicates that the fund provides a decent risk-adjusted return, though it's not as high as the Equity Fund.

VI. CONCLUSION

Based on the analysis, the Birla Sun Life Equity Fund demonstrates the highest average rate of return among the three funds at 6.84%, indicating strong performance. However, its Sharpe ratio of 0.236, while positive, is modest, suggesting that the risk-adjusted return is reasonable but could be improved. The Birla Sun Life Income Fund, with the lowest average return of 0.48%, shows poor performance and a negative Sharpe ratio of -3.260, indicating that it underperforms relative to the risk-free rate and does not adequately compensate for the risk taken. The Birla Sun Life Tax Plan has an average return of 5.42%, the second highest, and a Sharpe ratio of 0.2047. This suggests a decent risk-adjusted return, though not as high as the Equity Fund. Overall, the Equity Fund offers the best returns with moderate risk-adjusted performance, the Tax Plan offers good returns with reasonable risk adjustment, while the Income Fund is the least attractive due to its low and inadequately risk-adjusted returns.

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