IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

"A STUDY ON PERFORMANCE EVALUATION OF SELECTED DEBT MUTUAL FUNDS OF TOP FIVE ASSET MANAGEMENT COMPANIES"

[1]Ms. Divya. C, [2]Ms. R. Vidya

[1] USN: 1DA21BA019, 4th sem Student, Department of MBA, Dr. Ambedkar Institute of Technology, Bengaluru-560056.
[2]Assistant Professor, Department of MBA, Dr. Ambedkar Institute of Technology, Bengaluru-560056
[1]E-mail: divyac02300@gmail.com
[2]E-mail: dr.aitvidya@gmail.com

Abstract:

A Mutual Fund is an investment avenue which involves professionals and experts who pools funds from investors in order to invest, here unlike stocks the funds will be spent in diversified portfolio which includes variety of or mix of different asset classes, such as stocks, bonds, cash equivalents, other alternative investments like commodities, and real estate. Mutual funds have become a prominent choice for investors due to their ability to provide diversification, professional management, and accessibility. These funds, managed by experienced professionals, offer a way for individuals to participate in financial markets without the need for extensive market knowledge. Their transparency, variety, and regulatory oversight add to their appeal, while options like systematic investment plans and historical returns make them a compelling choice.

Performance Evaluation of Debt Mutual Funds involves assessing the effectiveness and success of the investment vehicles in generating returns. The category of research conducted is Descriptive in nature. The study focuses on the evaluation of Debt Mutual Funds of Macaulay duration, which typically involves analyzing factors such as historical returns, and risks taken by the fund, which is executed using tools such as Alpha, Beta, Standard deviation, Treynor's ratio, Sharpe ratio, and Jensen's ratio.

Keywords: Debt Mutual Fund, Diversification, Risk, Return, Macaulay Duration.

Introduction about the study

Each and every one of us would come across financial transactions in one option or the other in our daily life. Apart from the activity of consumption and sale of goods and services the other fields which involves huge transaction of money is investment. Mutual funds in India serve as a vital link between individual investors and the broader economy. They channel investments, support economic growth, enhance market efficiency, and facilitate financial inclusion, contributing to a more dynamic and robust economic landscape. In investment several prospects are obtainable to invest across wide range of industries and businesses, Numerous AMC’s offer these Mutual Funds and allied services. There are numerous methods available to enter the financial market one among them is putting money in Mutual Fund. To accommodate the demands of traders with varying risk tolerances, fiscal circumstances, and return anticipations, of Mutual Funds are on hand.

Review of literature

Sourav Kumar Das (2023) the study’s intent is to analyze the accomplishment of direct plans for four open-ended equity multi-cap MFs. The findings demonstrate that these funds successfully met investor expectations regarding CAGR. Notably, IIMF stood out as the top performer in risk-adjusted returns for the 1-year, 5-year, and 8-year periods. NIMF emerged as the most aggressive fund both before and after the COVID-19 pandemic. **S. Radhika (2017)** The research’s primary aims encompass gauging and assessing the accomplishment of MFs based on returns and risk, At the study’s conclusion, it was noted that schemes with higher investment percentages yielded correspondingly greater returns. The analysis further indicates that approximately 78 HDFC MF schemes have outperformed. **Vikas Kumar(2016)** The study's goals involve the assessment of sample schemes' performance, the juxtaposition of schemes' returns and risk against benchmarks such as BSE 100 and Sensex, and the evaluation of MFs performance concerning risk-return balance, the researcher concludes that ‘ICICI Prudential FMCG’ Fund bears the lowest risk, while ‘Reliance Banking’ Fund carries a escalated risk. **Archana Goel (2015):** Motive of the study are to put emphasis on debt and equity schemes briefly, to determine the accomplishment of debt and equity funds and to probe the funds sensitivity to the market fluctuations in terms of beta. Hence she concluded that HDFC MFs of debt and equity have efficient results as compared to the Birla and ICICI schemes. **Sowmiya G (2014):** The study's objectives encompass understanding the fundamental concepts and terminologies allied with MFs in both public limited and private limited companies, besides analyzing the performance and augmentation of picked MF schemes. In conclusion, the researcher asserts that Birla Sun Life Equity Fund scheme displayed commendable performance relative to other schemes. The beta and alpha values of all the schemes underscore that the level of risk outweighed the corresponding returns. In this research the performance assessment of opted debt MFs of top five AMC’s has been executed

Research gap

In this research the selected debt schemes of top five AMC’s are evaluated, and the period of the research is based on the Macaulay duration of the respective scheme that is for Short term debt fund (STDF) the period of study is 2020-2022, for Medium term debt fund (MTDF) the period of study is 2019-2022.

Need for the study

The study intends to assess the execution of selected debt MFs and to find which scheme has outperformed, this research intends to present some insight of the selected debt MFs. Most of the Mutual Fund investors prefer to invest in debt Mutual Funds since it generates fixed amount of interest and it has less risk contrast to equity funds, but plenty of various proposals are proposed by numerous AMCs and it would be difficult to figure out the best performing scheme It is a step to find the best scheme out of the opted debt scheme provided by top five AMC's. The primary need of this research is to get wise to the realism of the regulatory framework implied on MFs, and to know how AMC's handle and puts the money in the schemes, and be acquaint with the role of AMFI in MFs.

Objectives of the study

1. To evaluate the performance of selected debt Mutual Fund schemes of top five AMCs.
2. To assess the risk and return components in selected debt Mutual Funds.
3. To find the best performing schemes of five AMC's with regard to debt MFs.

Limitations of the study

1. The study relies on secondary data sourced from information available on the company's official website.
2. The analysis is constricted to a period of 6 weeks and it is restricted to only selected debt Mutual Funds.
3. The analysis is confined to just top five Asset Management Companies

Type of Research

This study is descriptive in nature, the numerical data are used in order to evaluate the performance of selected debt MFs of five AMCs. The data for study is collected through structural observations. It focuses on summarizing and presenting numerical data to draw valid conclusions.

Scope of the study

The present study is mainly concentrated on selected debt MFs of top five AMC's. The study is mainly undertaken to analyze the performance of selected schemes of debt MFs considering NAV and to assess risk and return in order to rank selected debt Mutual fund. The Net asset value for the schemes are taken based on Macaulay duration, whereas for STDFs the period of study is 2020-2022, for Medium term fund the period of study is 2019-2022 There are many MF schemes available for investment. This study mainly focuses on the performance of selected debt MFs of top five AMC's.

Source: The Economic Times.

Sources of Data collection

This study is purely based on the secondary data available in the respective AMC's official website and AMFI website.

Population

This study is regarding the debt MFs hence here the total AMC's are considered as population. There are 44 AMC's in total which is operating in India.

Sampling unit

Sampling unit of the study are the top five AMC's among the 44 active AMC's which is operating in India.

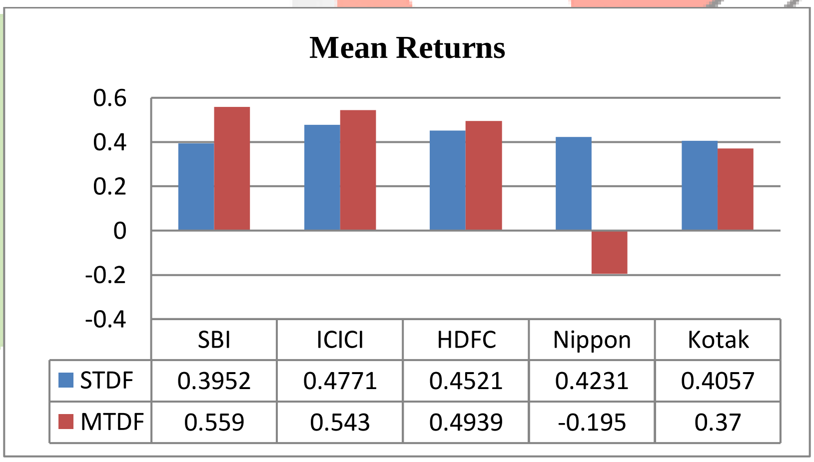
Sampling method

Judgment sampling is used to select the sample for this study. It involves the researcher making a judgment on which elements of the population are included in this sample.

Data Analysis and Interpretation

1. Mean returns of STDF (Short Term Debt Fund) and MTDF (Medium Term Debt Fund) of five AMC's for the year 2020-2022 and 2019-2022 respectively.

Schemes	Mean Returns	
	STDF	**MTDF**
SBI	0.3952	**0.559**
ICICI	**0.4771**	0.543
HDFC	0.4521	0.4939
Nippon	0.4231	-0.195
Kotak	0.4057	0.37

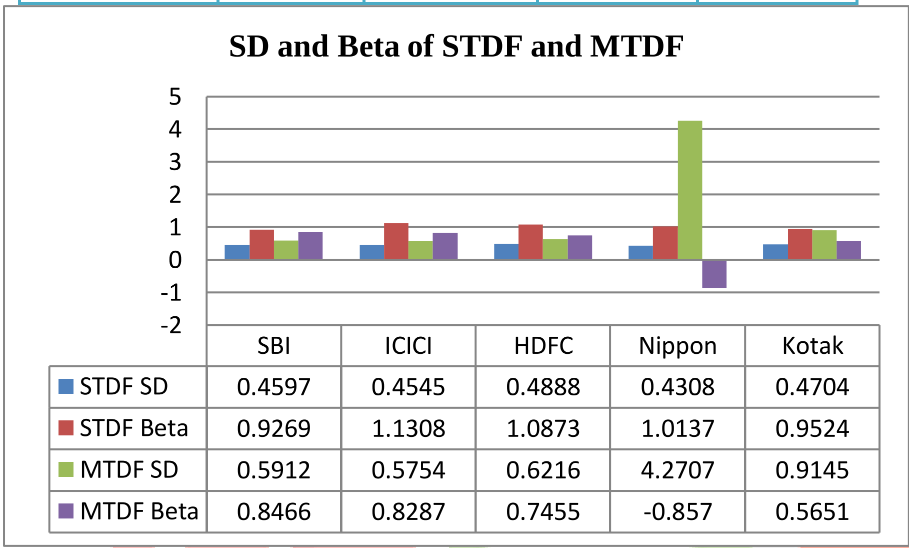


Inference:

ICICI has generated the highest mean returns of 0.4771 in STDF where they have diversified majority of their portfolio in GOI Floater, whereas SBI has generated the highest mean returns of 0.559 in MTDF where they have diversified majority of their portfolio in Non Convertible Debentures.

2. SD (Standard Deviation) and beta of STDF (Short Term Debt Fund) and MTDF (Medium Term Debt Fund) of five AMC's for the year 2020-2022 and 2019-2022 respectively.

Schemes	STDF		MTDF	
	SD	Beta	SD	Beta
SBI	0.4597	0.9269	0.5912	**0.8466**
ICICI	0.4545	**1.1308**	0.5754	0.8287
HDFC	**0.4888**	1.0873	0.6216	0.7455
Nippon	0.4308	1.0137	**4.2707**	-0.857
Kotak	0.4704	0.9524	0.9145	0.5651



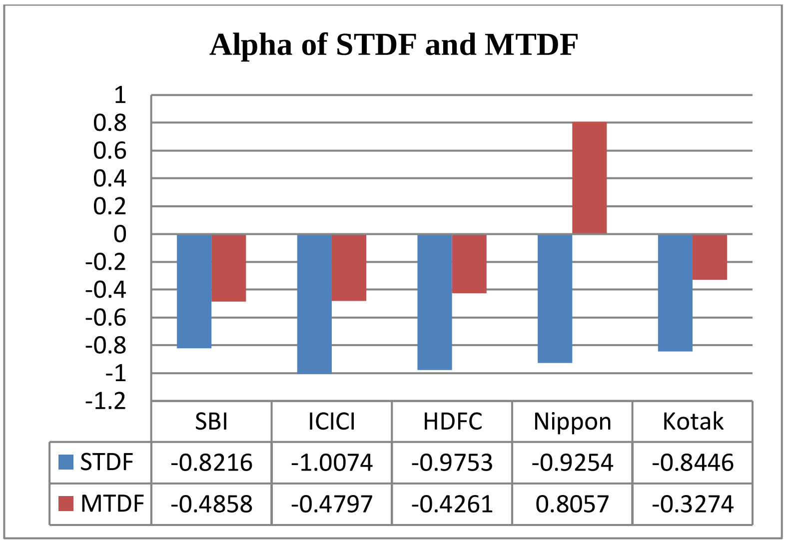
Inference:

HDFC STDF and Nippon MTDF are having the highest total risk of 0.4888 and 4.2707 respectively. This indicates that these funds returns have shown relatively larger deviations from its average return, signifying higher volatility, there might be larger swings expected in return.

ICICI STDF and SBI MTDF depicted highest beta value of 1.1308 and 0.8466 respectively indicating that these funds have been more volatile than the market. This means that these funds returns have shown larger fluctuations compared to the overall market movements.

3. Alpha of STDF (Short Term Debt Fund) and MTDF (Medium Term Debt Fund) of five AMC's for the year 2020-2022 and 2019-2022 respectively.

Schemes	Alpha	
	STDF	MTDF
SBI	**-0.8216**	-0.4858
ICICI	-1.0074	-0.4797
HDFC	-0.9753	-0.4261
Nippon	-0.9254	**0.8057**
Kotak	-0.8446	-0.3274

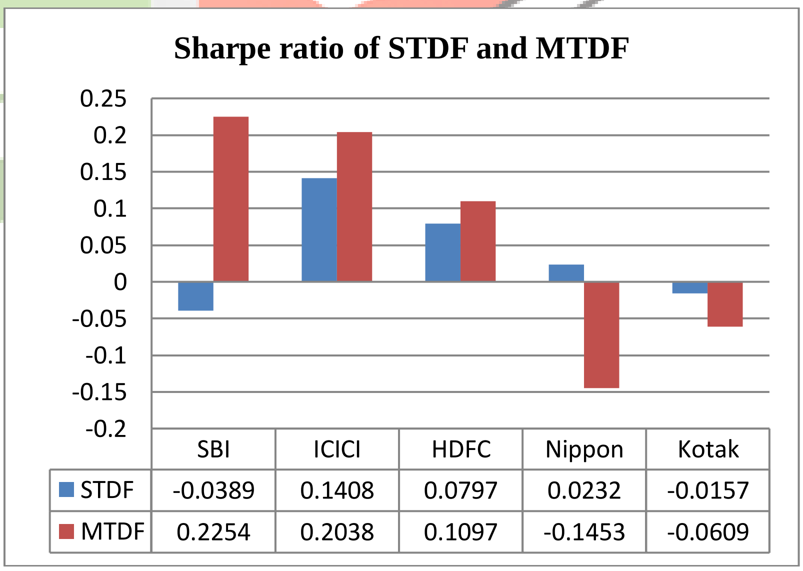


Inference:

The positive alpha is a healthy sign, Alpha indicates the portion of fund return which is independent or not impacted by the risk Nippon MTDF with positive alpha of 0.8057 and SBI STDF is having highest Alpha of -0.8216 which indicates that the fund return is independent and not impacted by the risk, it shows it would yield profitable return. ICICI STDF and SBI MTDF and has comparatively lower alpha.

4. Sharpe ratio of STDF (Short Term Debt Fund) and MTDF (Medium Term Debt Fund) of five AMC's for the year 2020-2022 and 2019-2022 respectively.

Schemes	Sharpe Ratio	
	STDF	MTDF
SBI	-0.0389	**0.2254**
ICICI	**0.1408**	0.2038
HDFC	0.0797	0.1097
Nippon	0.0232	-0.1453
Kotak	-0.0157	-0.0609

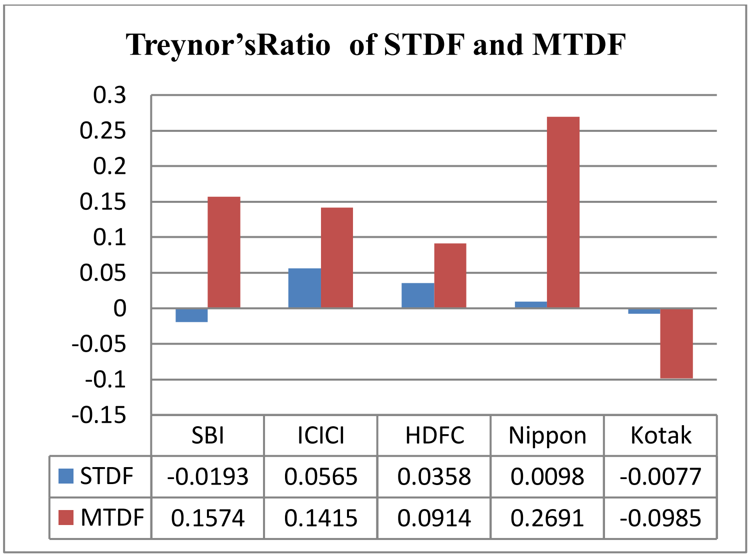


Inference:

The above graph represents the Sharpe ratio of STDF and MTDF in which ICICI STDF and SBI is having highest positive Sharpe ratio of 0.1408 and 0.2254 respectively indicating returns surpassing the sufficient excess return per unit of total risk. Notably it holds a strong Sharpe ratio, highlighting robust risk adjusted returns. SBI STDF and Nippon MTDF is having lower negative Sharpe ratio of -0.0389 and -0.1453 respectively indicating the portfolio has underperformed and the performance is not up to the expectations.

5. Treynor's ratio of STDF (Short Term Debt Fund) and MTDF (Medium Term Debt Fund) of five AMC's for the year 2020-2022 and 2019-2022 respectively.

Schemes	Treynor'sRatio	
	STDF	MTDF
SBI	-0.0193	0.1574
ICICI	**0.0565**	0.1415
HDFC	0.0358	0.0914
Nippon	0.0098	**0.2691**
Kotak	-0.0077	-0.0985

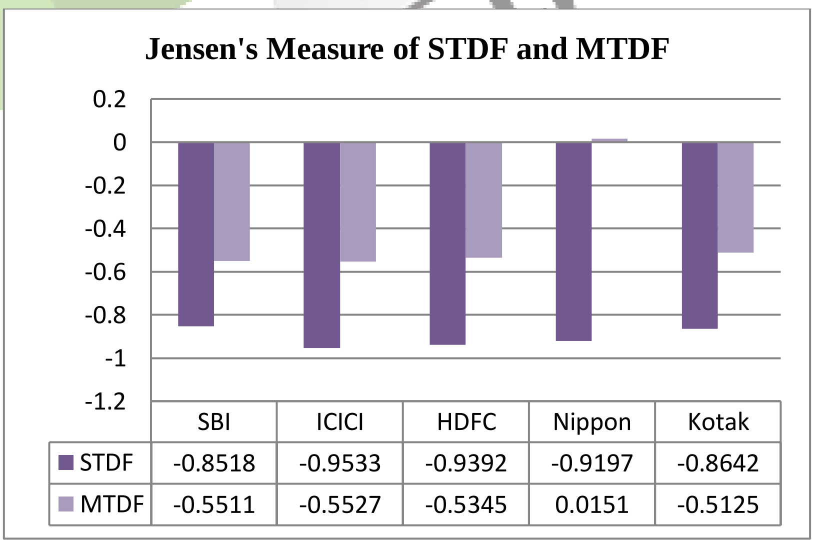


Inference:

ICICI STDF and Nippon MTDF is generated high Treynor's ratio of 0.0565 and 0.2691 respectively among the above funds indicating it is able to generate highest excess return per unit of market risk. It suggests that the investment is generating some additional return for each unit of systematic risk it carries. SBI STDF and Kotak MTDF depicted a lower negative Treynor's ratio of -0.0193 and -0.0985 respectively indicating that the investment is generating negative excess return over the risk-free rate relative to its systematic risk (beta).This suggests that the investment's performance is not compensating adequately for the risk it carries.

6. Jensen's Measure of STDF (Short Term Debt Fund) and MTDF (Medium Term Debt Fund) of five AMC's for the year 2020-2022 and 2019-2022 respectively.

Schemes	Jensen's Measure	
	STDF	MTDF
SBI	-0.8518	-0.5511
ICICI	-0.9533	-0.5527
HDFC	-0.9392	-0.5345
Nippon	-0.9197	0.0151
Kotak	-0.8642	-0.5125



Inference:

SBI STDF and Nippon MTDF are generated highest Jensen's measure of -0.8518 and 0.0151 respectively suggesting that the investment's actual return has fallen short of its expected return, given the level of risk it carries as indicated by its beta, Since all funds except SBI STDF and Nippon MTDF has negative value, hence the investments hasn't performed as well as predicted, This could imply that the investment has underperformed the market and has not compensated adequately for the systematic risk it bears.

Hypothesis 1

Hypothesis testing by using correlation method

Ho: There is no significant association between the risk and return for the selected STDFs (r=0)

H1: There is a significant association between the risk and return for the selected short debt fund (r≠0)

Year	SBI		ICICI		HDFC		Nippon		Kotak	
	Return	Beta	Return	Beta	Return	Beta	Return	Beta	Return	Beta
2022	0.2687	-0.0356	0.3903	-0.0584	0.2824	-0.0344	0.2597	0.059	0.2456	-0.0052
2021	0.2178	0.1828	0.2918	0.2412	0.3013	0.2557	0.3342	0.1776	0.2607	0.2139
2020	0.6991	-0.1824	0.7493	-0.2042	0.7728	-0.2246	0.6756	-0.2107	0.7107	-0.1948
r	**-0.8578**		**-0.8706**		**-0.7794**		**-0.8909**		**-0.8288**	

Inference:

The value indicates that there is a negative correlation between risk and return of all the funds and hence the Null hypothesis is accepted and it can be concluded that risk and return are inversely related.

Hypothesis 2

Ho: There is no significant association between the risk and return for the selected MTDF(r=0)

H1: There is a significant association between the risk and return for the selected MTDF(r≠0)

Year	SBI		ICICI		HDFC		Nippon		Kotak	
	Return	Beta	Return	Beta	Return	Beta	Return	Beta	Return	Beta
2022	0.2852	-0.0166	0.3506	-0.0461	0.2333	0.0177	0.1734	0.0508	0.2674	0.004
2021	0.308	0.2607	0.4238	0.3547	0.3886	0.3224	1.4009	0.7745	0.3657	0.308
2020	0.8289	-0.24	0.7094	-0.2298	0.6893	-0.2096	-2.0164	1.6126	0.3505	-0.138
2019	0.8137	7.6232	0.688	6.1455	0.6643	6.1438	-0.338	0.6216	0.4964	3.9728
R	**0.52333**		**0.48777**		**0.47773**		**-0.64589**		**0.90070**	

Inference:

The value indicates that there is perfect positive correlation between risk and return for MTDF of SBI, ICICI, HDFC and Kotak hence reject the Null hypothesis and it can be concluded risk and return are directly related, whereas Nippon has negative correlation between risk and return hence reject the null hypothesis and it can be concluded risk and return are inversely related.

Findings

1) It is found that ICICI STDF and SBI MTDF is having highest returns among selected funds. HDFC STDF and Nippon MTDF is having highest SD which indicates that these funds return have shown relatively larger deviations, ICICI STDF and SBI MTDF is having high beta rate indicating that its returns might move tandem with the market's movement.
2) Nippon MTDF and SBI STDF are having highest Alpha among selected funds which indicates that the fund return is independent and not impacted by the risk, it shows it would yield profitable return. ICICI STDF and SBI MTDF and has comparatively lower alpha.
3) ICICI STDF, HDFC STDF, Nippon STDF is having positive Sharpe ratio but the values is less than 1 hence it indicates that these funds is not providing enough excess returns, whereas The among the selected MTDFs SBI fund has generated highest Sharpe ratio and it indicates that the portfolio is providing abundant return for the level of risk it taken.
4) ICICI STDF and Nippon MTDF fund is having maximum Treynor's ratio value indicates that in relation to beta the investment generates excess returns over the risk free rate.
5) All the STDF and MTDF except Nippon MTDF is having negative Jensen's Measure indicating that the investment's actual return has fallen short of its expected return given the level of risk. Whereas it is found that Nippon fund has highest Jensen's Alpha is indicating that the investment's actual return is generating its expected return given the level of risk.

Conclusion

Mutual Fund are most popular investment avenues, however investing in Mutual Fund is left to the interest of investors, there are plenty options to opt to invest in diversified portfolio hence it requires a proper analysis and study on the topic in order to find the best schemes which is suitable for the respective investors risk and return objective. However analyzing the past performance is not the only way to identify the funds performance but it must be considered as one of the important way to look into accomplishment of funds. In this study Performance Evaluation of selected debt Mutual Funds of top five AMCs has been carried out, the study was mainly focused on Macaulay duration debt MFs of two common schemes issued by top five AMCs. In STDF ICICI has fetched high returns not more than its benchmark returns but comparatively among the selected funds it has maximum returns with moderate deviations within the Macaulay duration of the fund for the year 2020-2022, SBI medium term fund has fetched high returns with high moderate deviations even though the fund has not fetched maximum returns compared to its benchmark, it has fetched high returns compared to other selected funds surpassing its systematic and unsystematic risks within the Macaulay duration of the fund for the year 2019-2022.

Suggestions:

- The STDF and MTDF are volatile in nature hence investor has to consider the amount of risk associated in it.
- Investors have to consider the fund's sensitivity to interest rate changes.
- Longer duration funds may be more impacted by rate fluctuations. Hence it is suggested to invest in STDFs to avoid rate fluctuations compared to Longer duration funds.
- Since the schemes are open ended, investors should make a regular observation and try toanalyzethechangesintheinvestmentlandscapeandmarkettrendsandactaccordingly.
- Before investing in any funds investors must Research the fund manager's track record, should track AMCs.

References

- Souray Kumar Das, Performance of Mutual Funds in India: A Study with Reference to Select Equity Multi-Cap Funds, 2023, Volume-3 Issue-1: Management Journal for Advanced Research.
- Archana Goel, A Comparative Study on Performance Analysis of Debt and Equity Schemes at HDFC Mutual Funds with Reference to Birla Sun Life and ICICI Prudential Debt and Equity Mutual Funds, 2015, vol 5, issue 5, International journal of innovative research and development

www.amfiindia.com

www.sbimf.com

www.icicipruamc.com

www.hdfcfund.com

www.kotakmf.com

https://mf.nipponindiaim.com/

www.advisorkhoj.com

https://www.investing.com/indices/s-p-bse-500-historical-datahttps://primeinvestor.in/nifty-50-returns

https://www.researchgate.net/publication/221718023_Mutual_Fund_Financial_Performance_Analysis_A_Comparative_Study_on_Equity_Diversifiedschemes_and_Equity_Mid-Cap_Schemes