Chapter-06

A STUDY ON ANALYSIS OF FACTORS AFFECTING DEBT MUTUAL FUND IN INDIA

[1]**KARTIK MANGLIK**

[1]Student, School of Business Studies, Sharda University

[2]**Dr. SHARAD CHATURVEDI**

[2]Professor, School of Business Studies, Sharda University

ABSTRACT

A mutual fund is a professional vehicle in which an individual's money is pooled over a variety of investment portfolios. Investments in mutual funds are vulnerable to market risk, and most investors avoid them because of the dangers involved. Mutual fund investing, on the other hand, has grown in popularity over time. It is an excellent investment option for people seeking great returns with minimal risk. Mutual funds offer a variety of plans from which investors can select the ones that best suit their risk profile. As a result, the study focused primarily on debt mutual funds, with the goal of examining the characteristics that influence debt performance of mutual funds. AUM, expense ratio, Ytm, modified duration, Average modified duration, and asset allocation were used to evaluate the funds' effectiveness. Secondary data was employed in the study, and several debt fund schemes from various mutual funds, such as low duration and short term funds, were chosen for examination. As a result of the study, the ICICI Pru Low Duration Fund has outperformed all other schemes, and as a result, one should invest in this fund. Mutual funds, debt schemes, Low Duration Funds, and Short Term Funds are some of the terms used in this article.

INTRODUCTION

A mutual fund is a financial vehicle or technique that collects money to buy in stocks and shares, treasuries, types of securities, and other assets from a group of shareholders.

- The management of mutual funds is entrusted to professional those in charge of money distribute funds across multiple portfolios in order to maximise rewards for investors.
- Small & medium investors can invest in mutual funds, which are actively run financial assets of companies, treasuries, and other securities. Perhaps, each stakeholder shares gains and losses of the fund proportionally.

Invest in a Mutual Fund When Taking Out a Debt Loan, Keep the Following in Mind:

- **Expense Ratio:** To regulate a mutual fund, it is rate imposed on the AMC usage resource as a proportion of the underlying AUM. The plan with a lower expenditure ratio will offer much larger returns for the same level of overall performance as the underlying portfolio.
- **Modified Period:** The period has been altered. In simple words, it refers to a debt fund's interest price sensitivity, or how the effect of interest rates can affect the plan's NAV. As previously noted, a change in the price of interest has an unfavourable impact on the burden of regular income securities.
- **Yield-to-maturity:** A mutual fund plan's yield-to-maturity (YTM) is the initial movement returned before the all stocks in the project's investment are retained expecting no improvements to the project's investment at their individual maturity.
- **Asset Under Management Fund:** Assets under Management, or AUM, refer to the total market value of the investments that a company manages on behalf of its customers. The amount of money raised from traders and the money with the investment management company's principals are among the assets under control of a financial institution.
- **Average maturity Duration:** Average maturity is a metric that can be used to compute the average time to maturity of all debt instruments in a portfolio and it can be expressed in days, months, or years. Debt funds invest in a variety of fixed income and debt instruments, each of which may have a varied maturity.

- **Allocation of Assets:** Allocation of asset relates to the diversification strategy your financial commitments in various methods instructions which include securities, stocks, actual property, coins. Allocation of asset specializes in commanding chance via way of means of diversifying a funding portfolio.

VARIOUS WAYS TO MEASURE RISK IN MUTUAL FUNDS

- **Sharpe Ratio:** A metric that determines the funding performance is related to sound investment massive risks. It is preferable to have an elevated Sharpe Ratio. Another key metric is the Sharpe ratio (SR), which assesses a scheme's efficiency as a function of the possibility it has undertaken.

- **Standard Ratio:** The overall risk of a mutual fund is evaluated by the 'Standard Deviation' (SD). This illustrates how far the return deviate significantly from the estimated returns based on the fund's past evaluation. It analyses the fund's fluctuation.

- **Beta:** A measure of a fund's fluctuation in proportion to the market overall. It evaluates the instability of a fund benchmark. It shows how much a fund's performance might vary if were to be measured against a standard.

- **R-squared:** Calculates how much of a fund's fluctuation may be associated to changes is part of its market index. The value of an index fund should be R-squared, generally not further than 90 and not less than 80.

- **Alpha:** The uncertainty metric of a portfolio's effectiveness is called alpha. It evaluates the value of an investment strategy uncertainty results in comparison to a market index depending on its fluctuation. The alpha of fund is providing excess return over the performance of the market returns.

LITERATURE REVIEW

Their research (Archana Goel, 2015) compared the total performance of HDFC Mutual Funds' debt and equity schemes were compared against ABSL and ICICI Pru Debt and Equity Mutual Funds' daily returns to determine scheme class in which The investment company wishes to make a financial investment.

Investigated the Asset Allocation in Mutual Fund Debt Funds (Palanisamy, 2012). Information was gathered through a structured interview and statistical tools like frequencies & percentages, scaled ordering evaluation, and Chi-square analysis were conducted to evaluate the outcomes.

Examine into a research of the mutual fund industry's uncertainty performance in India (Agarwal and Mirza, 2017). The research comprises evaluating the return and risk performance of the various mutual funds and compare results to an underlying index assess even the scheme is exceeding or losing the average.

Utilised risk-return association analysis to evaluate and assess (Sathya Swaroop Debasish, 2009) the viability and effectiveness of 23 mutual fund schemes issued by 6 money market mutual funds and three government sector mutual funds over a 13-year period (April 1996 to March 2009). Mean, beta, co-efficient of determining, Sharpe ratio, Treynor ratio, and Jensen Alpha were used during the research. When evaluated against portfolio relationship models, the general analysis concludes that Franklin Templeton and Unit Trust of India are the best performers, with Birla Sun Life, HDFC, and LIC mutual funds performing below average.

RESEARCH OBJECTIVE

Most investors desire to invest in such a way that they may earn big returns rapidly without endangering their principal. There are a variety of diets available on the market, each with its own set of advantages. However, not all mutual fund schemes generate significant returns, which can be attributed to a variety of factors like AUM, fee ratios, scheme growth, and so on. They are unwilling to participate in these schemes because of the significant uncertainty, a lot of them aren't aware of what's going on various methods involved. As a result, goal of the essay is to examine the elements that have an impact debt mutual fund growth. The analysis, however, is primarily focused on debt mutual funds.

The Study's Demand

The main goal of the research is evaluate the growth of the chosen mutual funds schemes and determine which plan outperformed the suggested categories.

- To look into the factors that influence debt mutual funds' overall performance.
- Examine and evaluate the overall performance of a variety of debt fund schemes.

RESEARCH METHODOLOGY

Research technique is a collective time period for the established method of engaging in studies. There are many exceptional methodologies utilized in diverse sorts of studies and the time period is normally taken into consideration to encompass studies design, statistics amassing and statistics analysis.

The secondary data gathering mode is the only one that is affected. Secondary data is gathered from the company's website and other schemes .The sampling was done according to the CRISIL categorization. This indicates that the company chosen for this study is among CRISIL's top performers.

Analysis of two Debt Mutual Funds

1. **Low-duration debt mutual fund -** These closed-ended debt schemes invest in a variety of debt securities. These investments have a Macaulay term of 6-12 months. When compared to liquid funds, a low-term fund provides a superior short-term return. Low-tenure funds take advantage of interest rate changes to provide liquidity and return with a moderate level of risk.

2. **Short-term debt mutual fund -** These are debt mutual funds that make derivative financial investments, as defined by the Macaulay Index. The initiative will last between one and three years. These funds' investment goal is to generate income through accruing over the maturity term of the instruments in the scheme portfolio.

Data Analysis

Debt mutual fund with low duration fund and short term fund are obtained from March and April 2022 and evaluated for the data analysis. For the following debt Fund, a quarterly evaluation has been carried out.

Analysis of Low Duration Fund

Table 1: Factors Influencing the Low Duration Fund's Growth

Low Duration Fund Factor	ICICI Pru	HDFC	Aditya Birla Sun Life	SBI Magnum	Kotak
AUM	24605	18438	15158	11264	9221
Expense Ratio (%)	0.4	0.39	0.38	0.42	0.42
Yield to Maturity	4.96	4.92	5.01	4.51	5.05

(%)					
Modified Duration (years)	0.88	0.91	0.60	0.48	0.75
Average Maturity	5.65	2.35	1.01	0.71	2.16
Set Allocation	T-bills-0% Govt. Securities 27.91%, CP-2.62% & CD- 0%, Corporate Pass Through Certificates 0.12%, TREPS-14.77%	Govt. Securities 80.56% CP-20.70%, CD-11.09%, Pass Through Certificates 1.75% TREPS-1.35%	Govt. Securities 71.53%, CP-4.51%, CD-20.39%, Pass Through Certificates 0%, TREPS - 0.86%	Govt. Securities 20.41%, CD 8.53%, CP 31.11%, T-bills-1.76%, Pass through Certificate-0% TREPS-8.85%	Govt. Securities 35.27, CP-12.68%, CD 9.89%, T-bills-9.06%, TREPS-0.09%

Source-money control https://www.moneycontrol.com/mutualfundindia/?classic=true

Interpretation of the above data

The ICICI Pru Low Life Fund has Rs. 24605 crores in assets under administration, whereas HDFC Low Life Fund has Rs. 18438 crores, ABSL Low Life Fund has Rs. 15158 crores, and SBI Low Life Fund has Rs. 11264 crores. ICICI Pru Low Duration Fund has the most AUM among these funds, at Rs.24605 crore, while the Kotak Low Duration Fund has the lowest, at Rs.9221 crore.

The fee ratio, also known as the yearly investment operating expenditures, is the payment made to the fund manager each year as a percentage of the property. The charge ratio of the ICICI Prudential Low Duration Fund is 0.4 percent, while the fee ratio of the HDFC Low Duration Fund is 0.39 percent.

ABSL Low Duration Fund is 0.38 percent, SBI Magnum Low Duration Fund is 0.42 percent, and Kotak Low Duration Fund is 0.42 percent. SBI Magnum Low Duration Fund possesses the highest fee ratio 0.42%, while ABSL Low Duration Fund has the possesses the lowest fee ratio 0.38%.

ICICI Pru Low yields 4.96 percent, HDFC yields 4.92 percent, ABSL Low Duration Fund yields 5.01 percent, SBI Magnum Low Duration Fund yields 4.51 percent, and Kotak Low Duration Fund yields 5.05 percent, according to the desk. Kotak Low Duration Fund has the highest YTM (5.05%), while SBI Magnum Low Duration Fund has the lowest (4.51 percent).

Modified length is one of the different elements. The extrade in portfolio marketplace charge for each extrade in portfolio yield can be calculated using a modified portfolio length. As a result, the duration of ICICI has been recalculated.

Low Duration Fund Asset Allocation

- ICICI Pru Low Duration Fund is invested in company securities to the tune of Govt. Securities to the tune of 27.91%, Commercial Papers to the tune of 2.62% & Cash of deposit are for - 0%, Corporate Pass through Certificates 0.12% and to the tune of 14.77%.
- Low-Density HDFC Fund invests fifty-six percent credit risk of the fund; Govt. Securities are for 80.56% Commercial Papers to the tune of 20.70%, Cash of Deposit are for 11.09%, Pass through Certificates to the tune of 1.75% and TREPS-1.35.
- ABSL low duration fund has Govt. Securities are to the tune of 71.53%, Commercial Papers are for4.51%, Cash of Deposit to the tune for 20.39%, Pass Through Certificates are for 0% and TREPS for 0.86%

- SBI Magnum has the majority of capital in the SBI Magnum Low Duration Fund are non-convertible debentures (48%), .Govt. Securities for 20.41%, Cash of Deposit for 8.53% commercial Paper to the tune of 31.11%, T-bills- 1.76%, Pass through Certificate- 0% and TREPS- 8.85
- Kotak Low Duration Fund is mostly invested in debentures and bonds, with Govt. Securities 35.27, Commercial Papers 12.68%, Cash of Deposit for 9.89%, T-bills-9.06% and TREPS- 0.09 .

Short Term Fund Analysis

Table 2: Factors Influencing the Short Term Fund's Growth

Short Term Funds Factors	ICICI Pru	Aditya Birla Sun Life	HDFC	Kotak Bond	SBI
Asset Under Manageme nt (AUM)	19226	9418	15345	15898	15751
Expense Ratio	0.37	0.14	0.29	0.38	0.35
Yield to Maturity	5.61	5.57	5.56	5.65	5.09
Modified Duration	2.04	1.54	2.09	1.73	1.47
Average Maturity Duration	4.32	2.22	3.02	3.68	1.73

Asset Allocation	Govt. Securities-29.97%, CP- 6.89%, CD-1.29%, Pass Through Certificates-0.87%, TREPS-10.03%	Govt. Securities-21.67%, CP- 4.71%, CD-7.81%, Pass Through Certificates-1.92%, TREPS-3.42%	Govt. Securities -22.17%, CP-1.80, CD-4.12% Pass Through Certificates- 1.09% TREPS-0.87%	Govt. Securities -39.43%, CP-2.03%, CD-4.13% Pass Through Certificates-1.73% TREPS-0.18%	Govt. Securities -32.77%, CP-9.58%, CD-6.18% Pass Through Certificates-0% TREPS-0.97%

Source– Money control
https://www.moneycontrol.com/mutualfundindia/?classic=true

Interpretation of the above Data

The asset under control for ICICI Prudential Short Fund is Rs.19226, for ABSL Short Term Fund Rs. 9418, HDFC Rs. 15345, Kotak Bond Short Term Plan Rs. 15898, and for SBI Short Term Debt Fund it is Rs. 15751. ICICI Prudential Short Term Plan has the highest AUM at Rs. 19226, while ABSL Short Term Debt Fund has the lowest AUM at Rs. 9418.

ICICI Prudential Short Term Fund has an expense ratio of 0.37 percent, ABSL Short Term Debt Fund has an expense ratio of 0.14 percent, HDFC Short Term Debt Fund has an expense ratio of 0.29 percent, Kotak Bond Short Term Plan has an expense ratio of 0.38 percent, and SBI Short Term Debt Fund has an expense ratio of 0.35 percent. The Kotak Bond Short Term Plan has the greatest fee ratio 0.38 percent, while ABSL Short Term Debt Fund has the least expense ratio of 0.14 percent.

ICICI Prudential Short Term Fund has an YTM of 5.61 percent, ABSL has a YTM 5.57 percent, HDFC has a YTM 5.56 percent, Kotak Bond Short Term Plan has a YTM of 5.56 percent, and SBI has a YTM 5.09 percent. The ICICI Prudential Short Term Fund has the greatest YTM of 5.61 percent, while the SBI Short Term Debt Fund with the lowest YTM is 5.09 percent. Modified duration, average modified duration, and asset allocation are further elements that influence performance.

Short-Term Fund Asset Allocation

- ICICI Pru Short Term Fund has Government securities Of 29.97%, Commercial Papers for- 6.89%, cash deposit is for the 1.29%, Pass Through Certificates is tune to the 0.87%, TREPS for 10.03%
- ABSL Short Term Fund is a short-term investment fund managed by ABSL. As part of this plan, the bulk of investments are made in government ie Securities-21.67%, Commercial Paper is tune of the 4.71%, Cash of deposit for - 7.81%, Pass Through Certificates is tune of the 1.92%,and TREPS is of 3.42%
- HDFC Short Term Debt Fund has government securities is of 22.17%, Commercial Paper is tune of the 1.80, Cash of deposit is for 4.12%, Pass Through Certificates is of 1.09% and TREPS is of 0.87%.
- Kotak Short Term Plan offered by Kotak has government Securities is for 39.43%, Commercial Paper to the tune of 2.03%, Cash of deposit is for the 4.13%, Pass Through Certificates to the tune of 1.73% and TREPS of 0.18%
- SBI short term debt fund has government Securities is for the 32.77%, Commercial Paper is for the 9.58%, Cash of Deposit is

to the tune of 6.18%, Pass through Certificates is of 0% and TREPS is of 0.97%.

Finding and Discussion

- Following a closer examination, it appears that ICICI Pru low duration fund has Rs. 24605 and ICICI Pru short term fund has Rs. 19226 having the most assets under management. Plans with the highest asset under management are likely to generate higher returns.
- Kotak low duration fund and ABSL short term fund are two price ranges with low AUM.
- ABSL Low Duration Fund has the lowest fee ratio , ABSL Short Term Debt Fund are the Schemes that fall within the benchmark which is 0.1% to 1.25% are Therefore, choose to fund only these so that you can always get better returns.
- ICICI Pru, ABSL, and HDFC outperform other short duration funds. Is using the benchmark rate to evaluate assets under management.
- The Kotak Low Duration Fund and the ICICI Pru Initial Fund. These are the programmes with the highest rate of return on investment.

CONCLUSION

We are all aware that participating in these schemes carries the danger of a plug; most investors avoid them because of the hazards. A number of things have an impact on the outcomes, and the research entails a study of the components that affect mutual debt investment efficiency. The knowledge Quarterly examination of low and short-term funds. Mutual funds are regarded as one of the most straightforward investing options available to investors. Prior to financing, if we have a tendency to carefully examine performance; it will almost certainly produce great returns with few savings. The performance of these funds was examined using parameters such as AUM, expense ratio, Ytm, changed length, and average return.

SUGGESTIONS

- The three funds with the most assets under management are the ICICI Prudential low and short term fund. These schemes with the largest Assets seem to be more likely to make proposal higher returns. Investors looking for larger returns might pick.
- The chances of extra income returns are higher. The outcome is growth for the investment has increased, and scheme fee will rise as well. There is a most AUM when there is a most AUM.
- Because the returns on those investments are low. It is longer necessary to put money into a pricing range with low property under management.
- Low-expense-ratio plans, such as ABSL low and short term debt fund, and HDFC short term debt fund, are expected to outperform high-expense-ratio plans. As a result, you prefer to put your money into these scams. Low expense ratio funds are handled efficiently by the fund management and fall within benchmark ratios ranging from 1% to 1.5%.

REFERENCE

1. Agarwal, S., & Mirza, N. (2017). A study on the risk-adjusted performance of mutual funds industry in India. Review of Innovation and Competitiveness: A Journal of Economic and Social Research, 3(1), 75-94.

2. Bhagyasree, N., & Kishori, B. (2016). A study on performance evaluation of mutual funds schemes in India. International Journal for Innovative Research in Science & Technology, 2(11), 812-816.

3. Debasish, S. (2009). Investigating performance of equity-based mutual fund schemes in Indian scenario. KCA Journal of Business Management, 2(2).

4. Goel, A. (2015). 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. International Journal of innovative research and development, 4(4).

5. Jayalakshmi, M., & Palanichamy, V. (2020). A Study on Performance Evaluation of HDFC Mutual Funds In India. Our Heritage, 68(1), 3458-3466.

6. Mohanti, D., & Priyan, P. K. (2018). Style-exposure analysis of large-cap equity mutual funds in India. IIMB management review, 30(3), 219-228.

7. Palanisamy, A., Sengottaiyan, A., & Palaniappan, G. (2012). Investment Pattern in Debt Scheme of Mutual Funds–An Analytical Study. International Journal of Managment, IT and Engineering, 2(3), 285-301.

8. Sharma, K. B. (2020). Performance Analysis of Mutual Fund: A Comparative Study of the Selected Debt Mutual Fund Scheme in India.

9. Singal, V. S., & Manrai, R. (2018). Factors affecting investment in mutual funds. Journal of general management research, 5(2), 96-107.

10. Sharpe, W. F. (1966). Mutual fund performance. The Journal of business, 39(1), 119-138.

WEBSITES

- *www.icicipruamc.com*
- *www.hdfcfund.com*
- *www.sbimf.com*
- *www.adityabirlacapital.com*
- *https://www.etmoney.com/mutual-funds/debt*
- *https://groww.in/mutual-funds/category/best-debt-mutual-funds*
- *www.nipponindiamf.com*
- *www.kotakmf.com*
- *https://www.fincash.com/l/mutual-funds/hdfc-low-duration-fund*
- *https://www.valueresearchonline.com/funds/selector/primary-category/2/debt?fund-house=&end-type=1&star-rating=4%2C5&exclude=suspended-plans&tab=snapshot*