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A Study on Analysis of Factors Affecting Debt Mutual Fund Performance in India

Ms. Arya S Babu[1], Dr. Jahnavi M [2], Namita P Konnur[3], Dr. B. Percy Bose[4]

[1]2nd Year, M.Com (FA), Jyoti Nivas College Autonomous, Bangalore, Karnataka, India

[2]Assistant Professor, Jyoti Nivas College (Autonomous), Post Graduate Centre, Bengaluru, Karnataka, India, e-mail: janu.munagala@gmail.com

[3]Assistant Professor, Department of MBA, CMR Institute of Technology, Bengaluru, Karnataka, India, e-mail: namitakonnur02@gmail.com

[4]Associate Professor, Head-Department of MBA, Jyoti Nivas College (Autonomous), Post Graduate Centre, Bengaluru, Karnataka, India, e-mail: percybose@gmail.com

Abstract - Mutual fund is an investment avenue where the money invested by the investor is diversified in to varied investment portfolios. The investment in MF's are subject to market risk, most investors avoid investing in them due to the risks associated with it. However, investment in mutual funds has gained popularity over the years. It is an ideal investment option for those investors who look for high returns with less risk. There are various schemes in mutual fund and the investors can choose the schemes that are best suitable as per their risk profile. Hence, the study was mainly conducted on the debt mutual fund with the main objective of analyzing the factors affecting the debt mutual fund performance. The performance of the funds were analyzed based on the factors such as asset under management, expense ratio, yield to maturity, modified duration, Macaulay duration and asset allocation. For the study secondary data has been used and for the analysis various debt fund schemes of varied mutual funds such as low duration fund and short term fund were selected. Therefore, from the study conducted the schemes that have outperformed all together are ICICI Prudential Low Duration Fund as a result one must prefer investing in this fund.

Key words: Mutual fund, Debt schemes, Low Duration Fund, Short Term Fund

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I. INTRODUCTION

A mutual fund is a professionally-managed investment scheme, usually run by an asset management company that brings together a group of people and invests their money in stocks, bonds and other securities. A Mutual Fund (MF) is formed when capital gathered by different investors is invested in buying the company stocks, shares, or bonds. Mutual fund investments are collectively managed by a professional fund manager in order to earn the highest possible returns. Therefore, each shareholder participates equivalently in the gains or losses of the fund. Mutual funds invest in a vast number of securities, and performance is usually tracked as the change in the total market cap of the fund derived by the aggregating performance of the underlying investments. This is how mutual funds work, not only in India but, anywhere in the world. All the mutual funds are registered with SEBI and they function as per the provisions of strict regulation designed to protect the interests of the investor.

The importance of the study is to understand the factors affecting the performance of debt mutual fund. The factors analyzed for the study were asset under management, expense ratio, yield to maturity, modified duration, Macaulay duration and asset allocation.

Types of Mutual Funds

Mutual funds are broadly classified under the following categories;

- Based on Asset Class
    - Equity Funds
    - Debt Funds
    - Hybrid Funds
    - Money Market Funds
- Based on Structure
    - Open End Funds
    - Closed-End Funds

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Factors to be consider when investing in Debt Mutual Fund

The important factors one must consider when investing in debt funds are as follows:

a. Expense Ratio:

Expense ratio is the fee charged by the asset management company (AMC) as a percentage of the net assets under management (AUM) to manage a particular mutual fund scheme. For the similar degree of performance of the underlying portfolio a scheme with lower expense ratio will significantly yield higher returns.

b. Modified Duration:

Modified duration in simple words, is the interest rate sensitivity of a debt fund i.e. the influence of interest rate can change the scheme NAV. As referenced earlier increase or decrease in the prices of fixed income securities have a reverse relationship with interest rate changes. Longer the modified duration, more sensitive will be the fund to interest rate changes. Interest rates move in a cycle.

c. Yield to Maturity

Yield to maturity (YTM) of a debt mutual fund scheme is the expected return prior to the expenses of all the securities in the scheme portfolio are held to their respective maturities, assuming no changes to the scheme portfolio. Investors should know that yield to maturity only give high level sense of gross returns (before expenses), if your tenure of investment matches with the average maturity outline of the debt scheme. YTM is also relevant for longer duration funds provided your investment tenure ranges an entire interest rate cycle (3 years plus) but you should observe the YTM over the period and form expectations accordingly since it can change over time if the fund manager makes active duration calls, e.g. dynamic bond funds.

d. Asset under Management

The total market value of the investments that an organization oversees in the interest of its clients is known as Assets under Management or AUM. A financial institution's assets under management incorporate the capital raised from investors and the capital having a place with the principals of the fund management firm. Since the assets under management characterize the size and success of an organization, it is significant that investors contemplate them before making any investment choices. The value of AUM of an organization also involves the returns that a mutual fund earns, hence can be handily contrasted with its peers. If the AUM of a fund is higher, it is an indicator that the fund is doing well and the investor may consider investing in it. However, the value of AUM cannot be the main factor to be thought of while making the decision of investing in the fund. Expense ratio, Fund

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managers, previous years' returns, etc. are some factors that ought to be of concern.

e. Macaulay Duration

The Macaulay duration is the weighted average term to maturity of the cash flows from a bond. The weight of each cash flow is ascertained by dividing the present value of the cash flow by the price. Macaulay duration is usually used by portfolio managers who use an immunization approach.

f. Asset Allocation

Asset allocation refers to the strategy of diversifying your investments in diverse asset classes such as bonds, stocks, real estate, cash, and cash alternatives. Asset allocation focuses on controlling the risk by diversifying an investment portfolio. The main purpose of asset allocation is to maximize returns and minimize risk. While there is no assurance that any particular combination of investments will be more profitable or less risky than any other, a well-grounded diversification strategy helps to optimize a portfolio of investments. Whereas asset allocation also relates to the proportion of a given portfolio held in different categories of assets, diversifying and rebalancing comprise the act of allocating assets.

II. REVIEW OFLITERATURE

O.V.A.M.Sridevi (2018), this paper attempts to compare the performance of balanced mutual fund schemes - mid-cap and small-cap funds based on risk and return analysis, it is carried out using various financial tools like average return, Sharpe Ratio, Treynor Ratio, Jensen Ratio, standard deviation, beta and alpha. However, the study reported that the schemes have diversified and varied results. **Devi (2017)** studies on the perception of investors towards mutual funds and to know the expectation of people for the return on mutual funds. Various data interpretation methods and presentation methods were used to understand the same. The results of the study showed that most of the investors like to invest in mutual funds, most of the people like to invest their money for one or three years to get returns on their investments and people invest in mutual funds to get higher returns and tax benefits.**Varun Sagar Singal (2018)** says that mutual fund act as a medium for retail investors to invest their savings in the professional fund management system, irrespective of the sum invested. The article aims at finding the factors affecting investment decision on mutual funds and the impact of behavioral factors on an investor. It also aims at finding the factors that prevent the people to invest in mutual funds. The results indicate that the fundamental factors and investor perception play a vital role in the investment decision making process .**R.Uppily (2018)** studies on the awareness of debt mutual funds. The study was conducted to analyse the financial literacy level with respect to debt mutual funds.

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The research says that there are various alternatives available in debt mutual funds and the investors has to study and select the appropriatefund based on his risk profile and time frame of the investment. **Vijaya Kittu Manda (2019)** examines the recent trends and issues surrounding the debt mutual funds. The study is done to understand the individual investor's perception towards debt mutual funds. The study concludes that investors should consider debt funds schemes that are diversified that is having a good mix of all types of debt securities and those having high AUM so that impact of a default incident will have negligible impact on returns. **Archana Goel (2015)** in their research they have made a comparative study on performance analysis of debt and equity schemes at HDFC Mutual Funds with reference to Birla Sun and ICICI Prudential Debt and Equity Mutual Funds by taking their daily returns to know the category of fund where the investor would like to invest. For the study the researchers have used different tools for rating the schemes which include Sharpe Ratio, beta, average, NAV and standard deviation. The results of the study showed that the schemes are proficient and excellent. **Kamalpreet Kaur (2018)** examines the performance of open-ended debt mutual funds in India. For the study a sample of few schemes have been selected to evaluate the performance on the basis of weekly returns and benchmark returns. For this purpose statistical tools like average, standard deviation, beta, co-efficient of determination, systematic and unsystematic risk and risk adjusted performance measures suggested by Treynor, Sharpe, Jensen and Fama measures were employed. The study revealed that none of the schemes performed better according to Sharpe and Jensen measures whereas few schemes outperformed the market according to Treynor's measure.

III. RESEARCH METHODLOGY

Statement of the Problem:

Most investors want to make investments in such a way that they get high returns as fast as possible without the risk of losing the principal money. There are several schemes in the market that offers various benefits. However, not all the mutual fund schemes yields high returns and this might be because of various factors such as asset under management, expense ratio, fund performance etc. Also most of them are hesitant to go for invest into mutual funds mainly due to high risk involved and most of them are unaware of the schemes available in the market. Therefore, this article intention is to analyze the factors that influence the performance of debt mutual funds However, the study mainly focuses on debt mutual funds.

Need for the Study

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The basic need of this study is to assess the performance of selected debt mutual funds and to know which scheme has outperformed put of the categories.

Objectives of the Study:

1. To analyze the factors affecting the performance of debt mutual funds
2. To study and understand the performance of various debt fund schemes

Scope of the Study:

The study is confined to the analysis of the factors affecting the performance of debt mutual funds. For the analysis various debt fund schemes of varied mutual funds such as low duration fund and short term fund were selected. The funds involved are ICICI Prudential Low Duration Fund, HDFC Low Duration Fund, Aditya Birla Sun Life (ABSL) Low Duration Fund, SBI Magnum Low Duration Fund, Kotak Low Duration Fund, ICICI Prudential Short Term Fund, IDFC Bond Fund, HDFC Short Term Debt Fund, Kotak Bond Short Term Plan and Franklin India Short Term Income Plan.

Sources of Data Collection:

The data collected for the study is refined carefully and necessary data is taken for the study. And the data for the study was collected from various mutual fund websites, research journals and articles related to the topic.

Type of Research:

The type of research conducted is analytical in nature.

Tools Used for the Study:

1. The basic mathematical tools on MS Excel were used for the analysis.

2. To compute the modified duration the below formula was used;

$$\text{Modified Duration} = \frac{Macaulay\ Duration\ (in\ years)}{(1+\left(\frac{Yield\ to\ Maturity}{2}\right))}$$

3. The charts such as pie charts and bar graph were used to represent the asset allocation.

Limitations of the Study:

1. The study is restricted to only debt mutual funds.
2. The analysis is confined to just two categories of debt funds.
3. The data used for the study is four months.

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IV. DATA ANALYSIS& INTERPRETATION

For the data analysis, debt mutual funds such as low duration funds and short term funds are taken and analyzed. Quarterly analysis has been done for the following debt funds.

Analysis of Low Duration Fund

Table 1: Factors Affecting the Performance of Low Duration Fund

Funds / Factors	ICICI Prudential Low Duration Fund	HDFC Low Duration Fund	ABSL Low Duration Fund	SBI Magnum Low Duration Fund	Kotak Low Duration Fund
Asset Under Management (AUM)	20224.74	14077.54	10502.93	9152.4	6011.45
Expense Ratio	0.91%	1.48%	1.59%	1.47%	1.39%
Yield to Maturity	6.77%	6.74%	6.84%	6.37%	8.03%
Modified Duration	0.87 years	0.88 years	0.87 years	0.80 years	0.83 years
Macaulay Duration	0.94 years	0.96 years	NIL	NIL	NIL
SET ALLOCATION	T-bills-3.47% Govt. Securities- 5.13% CP &CD-24.39% Corporate Securities-62.17% Pass Through Certificates-1.56% TREPS & Net Current Assets-4.16%	Govt. Securities-6.18% CP-5.57% CD- 28.03% Credit Exposure-55.61% Cash & Cash Equivalent-4.63%	NIL	Non- Convertible Debt-48.11% CD-19.72% CP-12.96% Zero Coupon Bonds-4.47%Discounted Securitized Debt-6.47% State Development Loans-2.96% Cash & Cash Equivalent-5.85%	Debentures & Bonds- 73.11% CP/CD-22.28% T-bills-2.59% Net Current Assets-1.50% TREPS & Term Deposits &rev.Repo-1.83%

Source: Authors calculation

Interpretation:

In order to examine the performance of debt mutual funds, factors such as Asset under management (AUM), Expense ratio, Yield, Modified duration, Macaulay duration and

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asset allocation were analyzed.

The above table gives information related to low duration fund such as ICICI Prudential Low Duration Fund, HDFC Low Duration Fund, Aditya Birla Sun Life Low Duration Fund, SBI Magnum Low Duration Fund and Kotak Low Duration Fund. When we add up the investments made by all investors (both individual and institutional), the value we arrive at is the Assets under Management (AUM). As shown in the table, the assets under management are Rs. 20224.74 for ICICI Prudential Low Duration Fund, Rs. 14077.54 for HDFC Low Duration Fund, Rs. 10502.93 for Aditya Birla Sun Life Low Duration Fund, Rs. 9152.40 for SBI Magnum Low Duration Fund and Rs. 6011.45 for Kotak Low Duration Fund. The highest AUM among these schemes is ICICI Prudential Low Duration Fund with Rs. 20224.74 and the lowest is Kotak Low Duration Fund with Rs. 6011.45. The funds with maximum AUM are likely to have more returns. When the returns are high the demand for the fund also increases as a result the value also increases.

Another important factor is the expense ratio.

The annual fund operating expenses, mostly known as the expense ratio, is the percentage of assets payable to the fund manager. The expense ratios of the schemes are 0.91% for ICICI Prudential Low Duration Fund, 1.48% for HDFC Low Duration Fund, 1.59% for ABSL Low duration Fund, 1.47% for SBI Magnum Low Duration Fund and 1.39% for Kotak Low Duration Fund. The scheme with highest expense ratio is ABSL Low Duration Fund with 1.59% and the one with low expense ratio is ICICI Prudential Low Duration Fund with 0.91%. The benchmark for the expense ratio varies between 01% - 1.25% and those schemes that fall between the benchmark are being managed effectively by the fund manager. The scheme that fall under benchmark is ICICI Prudential Low Duration Fund with 0.91%.

Yield is an important factor affecting the performance of the funds. The Yield to Maturity or the YTM is the rate of return anticipated on a bond if held until maturity. From the table we can see that, ICICI Prudential Low Duration Fund has a yield of 6.77%, 6.74% for HDFC Low Duration Fund, 6.84% for ABSL Low Duration Fund, 6.37% for SBI Magnum Low Duration Fund and 8.03% for Kotak Low Duration Fund.

The highest YTM among these schemes is Kotak Low Duration Fund with 8.03% and the scheme with lowest YTM is SBI Magnum Low Duration Fund with 6.37%.

The other factors are Modified duration. Modified duration of portfolio can be used to anticipate the change in market value of portfolio for every change in portfolio yield. From the table above we can see the modified duration for the low duration funds. The modified duration shown in the table is expressed in years. However, to find the level of sensitivity of the funds with respect to interest rate it should be expressed in rupees.

As a result, the modified duration calculated for ICICI Prudential Low Duration Fund by using the formula is Rs. 2 which means that when the interest rate changes, the value of the bond changes by Rs. 2. Likewise, the modified duration for

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HDFC Low Duration Fund is also Rs. 2 which means to say that when the interest rate changes, the value of the bond changes by Rs. 2. However, it cannot be calculated for the other schemes since the Macaulay duration is not available. Higher the sensitivity higher will be the modified duration.

Macaulay Duration measures the price volatility of fixed income securities. The Macaulay duration for the schemes is 0.94 years for ICICI Prudential Low Duration Fund and 0.96 years for HDFC Low Duration Fund while the Macaulay duration for the other three schemes are not available. Therefore, the scheme with short Macaulay duration is ICICI Prudential Low Duration Fund. Shorter the duration lesser will be the level of risk involved with the fund.

Asset allocation is also a factor affecting the fund's performance. The allocation of fund is done by the fund manager. The fund is allocated in equity, debt and cash and other assets.

The asset allocation for Aditya Birla Sun Life Low Duration Fund is not available. However, the asset allocations of the other schemes are represented in a pie chart and are as follows:

Asset Allocation of Low Duration Fund

a. **ICICI Prudential Low Duration Fund** - the more portion of fund is invested in corporate securities that is 62%, 24% in certificate of deposits and commercial papers and least investment is made in government securities with 5%, TREPS and net current assets with 4%, treasury bills with 3% and with 2% in pass through certificates

b. **HDFC Low Duration Fund -** Under the scheme 56% of the fund is invested in credit exposure, 28% in certificate of deposits, 6% in government securities and the least investment is made in commercial papers and cash and cash equivalents with 5%.

c. **SBI Magnum Low Duration Fund** - Under SBI Magnum Low Duration fund the major part of investments is made in non- convertible debentures with 48%, 20% in certificate of deposits, 13% in commercial papers, 6% in discounted securitized debt, 5% in cash and cash equivalent, 4% in zero coupon bond, 3% in state development loans and 1% in government securities.

d. **Kotak Low Duration Fund** - major portion of the fund is invested in debentures and bonds, 22% in certificate of deposits and commercial papers, 3% in treasury bills, 2% in TREPS, term deposits and reverse repo and 1% in net current assets.

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Analysis of Short Term Fund

Table 2: Factors Affecting the Performance of Short Term fund

Funds Factors	ICICI Prudential Low Duration Fund	IDFC Short Term Fund	HDFC Short Term Debt Fund	Kotak Bond Short Term Fund	Franklin India Short Term Income Plan
Asset Under Management (AUM)	12772.97	11818.68	11361.69	10600.35	8229.52
Expense Ratio	1.55%	1.09%	0.58%	1.44%	1.74%
Yield to Maturity	7.37%	6.57%	7.30%	6.92%	13.90%
Modified Duration	2.51 years	1.9 years	2.46 years	2.22 years	2.03 years
Macaulay Duration	2.66 years	NIL	2.62 years	NIL	2.12 years
Asset Allocation	Govt. Securities-16.95% CP/CD-	Corporate Bond-93.59% CD-2.67% Pass Through	Govt. Securities & SDL-4.08% Credit	Debentures & Bonds-69.07% Govt. Dated	Corporate Debt-98.22% PSU/PFI Bond-13.48%
	4.03% Corporate Securities-74.07% Pass Through Certificates-2.38% TREPS & Net Current Assets-3.60%	Certificates-0.71% Net Current Assets-3.70%	Exposure-89.70% CP-1.26% Cash, Cash Equivalents & Net Current Assets-4.25%	Securities-24.16% CP/CD-2.12% T-bills-2.83% TREPS, Term Deposits & Rev. Repo-1.12% Net Current Assets-3.55%	Cash & Other Current Assets-(11.70%)

Source: Authors calculation

Interpretation:

The table gives information relating to the factors affecting the short term fund performance. The following are the funds for which the analysis is done, ICICI Prudential Short Term Fund, IDFC Bond Fund, HDFC Short Term Debt Fund, Kotak Bond Short Term Plan and Franklin India Short Term Income Plan. The factors affecting the performance are asset under management (AUM), expense ratio, modified duration, Macaulay duration and asset allocation. The asset under

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management for ICICI Prudential Short Fund is Rs. 12772.97, Rs. 11818.68 for IDFC Bond Fund, Rs. 11361.69 for HDFC Short Term Debt Fund, Rs. 10600.35 for Kotak Bond Short Term Plan and Rs. 8229.52. The fund with maximum AUM is ICICI Prudential Short Term Plan with Rs. 12772.97 and the fund with low AUM is Franklin India Short Term Income Plan with Rs. 8229.52. The fund with highest AUM means that the fund is performing effectively and the returns earned on these funds are high.

Another factor is the expense ratio. It is the total expenses charged to scheme for the month expressed as a percentage to average monthly net assets. The expense ratios for the schemes are, 1.55% for ICICI Prudential Short Term Fund, 1.09% for IDFC Bond Fund, 0.58% for HDFC Short Term Debt Fund, 1.44% for Kotak Bond Short Term Plan and 1.74% for Franklin India Short Term Income Plan. The scheme with highest expense ratio is Franklin India Short Term Income Plan with 1.74% and the scheme with low expense ratio is HDFC Short Term Debt Fund with 0.58%. The benchmark for expense ratio varies from 0.1% to 1.25%. The schemes that fall between the benchmark indicate that the scheme is managed effectively by the fund manager. Therefore, the schemes that fall under the benchmark are IDFC Bond Fund that is 1.09% and HDFC Short Term Debt Fund with 0.58%.
Yield is also a factor that affects the performance of the scheme. The Yield to Maturity or the YTM is the rate of return anticipated on a bond if held until maturity. YTM is expressed as an annual rate. From the table, the YTM for ICICI Prudential Short Term Fund is 7.37%, 6.57% for IDFC Bond Fund, 7.30% for HDFC Short Term Debt Fund, 6.92% for Kotak Bond Short Term Plan and 13.92% for Franklin India Short Term Income Plan. The scheme with highest YTM is Franklin India Short Term Income Plan with 13.90% and the one with low YTM is 6.57%.The other factors affecting the performance are modified duration, Macaulay duration and asset allocation. Modified duration of portfolio can be used to anticipate the change in market value of portfolio for every change in portfolio yield. From the table above we can see the modified duration for the short term funds. The modified duration shown in the table is expressed in years. However, to find the level of sensitivity of the funds with respect to interest rate it should be expressed in rupees. The formula that is used to convert years into rupees is given below:
As a result, the modified duration calculated for ICICI Prudential Short Term Fund by using the formula is Rs. 6, for HDFC Short Debt Fund is also Rs. 6 and for Franklin India Short Term Income Plan it is Rs. 3. This means to say that when the interest rate changes, the value of the bond changes by Rs. 6 in case of ICICI Prudential Short Term Fund and HDFC Short Debt Fund. In case of Franklin India Short Term Income Plan when the interest rate changes, the value of the bond changes by Rs. 3. However, it cannot be calculated for the other two schemes since

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the Macaulay duration is not available. Here, the modified duration is high for both ICICI Prudential Short Term Fund and HDFC Short Debt Fund. Therefore, the level of sensitivity for these schemes is high. Higher the sensitivity higher will be the modified duration.

The Macaulay duration for the schemes is 2.66 years for ICICI Prudential Short Term Fund, 2.62 years for HDFC Short Debt Fund and 2.12 years for Franklin India Short Term Income Plan while the Macaulay duration for the other two schemes are not available. The scheme with maximum Macaulay duration is ICICI Prudential Low Duration Fund with
2.66 years and the one with short Macaulay duration is Franklin India Short Term Income Plan with 2.12 years. Shorter the duration lesser will be the level of risk involved with the fund.

Asset allocation is also a factor affecting the fund's performance. The fund is allocated in equity, debt and cash and other assets.

Asset Allocation of Short Term Funds:

a. ICICI Prudential Short Term Fund - 73% of fund is invested in corporate securities, 17% in government securities, 4% in both certificate of deposits and commercial papers and 2% in pass through certificates.
b. IDFC Bond Fund - Under this scheme majority of investment is made in corporate securities that is 93%, 4% in net current assets, 2% in certificate of deposits and 1% in pass through certificates.

c. HDFC Short Term Debt Fund - 89% of fund is invested in credit exposure, 6% in cash, cash equivalents and net current assets, 4% in government securities and 1% in commercial papers.

d. Kotak Bond Short Term Plan - Under this scheme 67% of investment is made in debentures and bonds, 24% in government dated securities, 3% each in net current assets and treasury bills, 2% in certificates of deposits and commercial papers and 1% in TREPS, term deposits and reverse repo.

e.Franklin India Short Term Income Plan - 98.22% of investment is made in corporate debt, 13.48% in PSU or PFI bond and -11.70% in cash and other current assets with a negative value.

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V.FINDINGS & SUGGESTIONS

Findings

1. The schemes with maximum AUM are likely to have more returns. From the study it is found that ICICI Prudential Low Duration Fund with Rs. 20224.74 and ICICI Prudential Short Term Fund with Rs. 12772.97 have the highest AUM.

2. The funds with low AUM are Kotak Low Duration Fund and Franklin India Short Term Income Plan.

3. The scheme with high expense ratio is Aditya Birla Sun Life Low Duration Fund with 1.59% and Franklin India Short Term Income Plan with1.74%.

4. The schemes which fall under the benchmark that is 0.1% - 1.25% are ICICI Prudential Low Duration Fund, IDFC Bond Fund and HDFC Short Term Debt Fund. Therefore, prefer investing in these so that one can earn better returns.

5. When compared AUM with the benchmark expense ratio, ICICI Prudential Low Duration Fund, IDFC Bond Fund and HDFC Short Term Debt Fund have better returns.

6. The schemes with maximum yield to maturity are Kotak Low Duration Fund and Franklin India Short Term Income Plan.

7. The schemes with high modified duration are ICICI Prudential Low Duration Fund and HDFC Low Duration Fund both with Rs. 2 and ICICI Prudential Short Term Fund and HDFC Short term Debt Fund both withRs.6.

8. The scheme with minimum modified Duration is Franklin India Short Term Income Plan withRs.3.

9. Fund with maximum modified duration has higher level of sensitivity.

10. Funds having short Macaulay duration from both low duration Fund and short duration fund are ICICI Prudential Low Duration Fund with 0.94 years and Franklin India Short Term Income Plan with 2.12years.
11. Asset allocation is an important factor to look into basically the fund invested by the investor would be further invested in different companies by the fund manager. Investors who are looking for long term returns should probably invest in those schemes where the proportion of investment made is more in Government Securities and in case of short term returns, invest in funds where the proportion of investment made is more in Certificate of Deposits and Commercial Papers.

Suggestions:

1. The schemes with maximum AUM are likely to have more returns. As a result investors who are seeking to earn more returns should invest in ICICI Prudential Low Duration Fund, ICICI Short Term Fund and IDFC Bond Fund which has the maximum AUM.

2. When there is maximum AUM the chances to earn more returns is high. As a result the demand for the fund also increases and hence the value of the fund shall also increase.

3. It is advisable not to invest in funds which have low AUM since the returns earned on those are low.

4. The funds with low expense ratio mean to say that the funds are being managed effectively by the fund manager and would fall between the benchmark ratios that are 01% to 1.25%. The schemes with low expense ratio such as HDFC Short Term Debt Fund, ICICI Prudential Low Duration Fund and IDFC Bond Fund are likely to have more returns than the schemes with high expense ratio. Therefore, prefer investing in these schemes.

5. When the expense ratio is high then the investor has to pay it out of the returns earned. Therefore, prefer not investing in Franklin India Short Term Income Plan and ABSL Low Duration Fund as these schemes have high expense ratio out of all the schemes.

6. Fund with maximum modified duration has higher level of sensitivity.

7. Funds having short Macaulay duration are the ones with low risk. Investors who would want to take less risk should prefer investing in ICICI Prudential Low Duration Fund or Franklin India Short Term Income which have a short Macaulay duration and those who wish to take high risk can invest in either HDFC Low Duration Fund or ICICI Short Term Fund having high duration.

8. Asset allocation is an important factor to look into basically the fund invested by the investor would be further invested in different companies by the fund manager. Investors who are looking for long term returns should probably invest in Kotak Short Term Planor Franklin India Short Term Income Plan where the proportion of investment made is more in Government Securities and in case of short term returns, invest in HDFC Low Duration Fund or SBI Magnum Low Duration Fund or ICICI Prudential Low Duration Fund where the proportion of investment made is more in Certificate of Deposits and Commercial Papers.

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VI. CONCLUSION

The MF's are considered as one the finest investment opportunity available for investors to make an investment, before going for investment if we assess the performance thoroughly definitely it will give big returns with little savings. As we all are aware that the investment in these schemes are subject to market risk, most investors avoid investing in them due to the risks associated to it. Their performance is also affected by various factors and therefore the project depicts the analysis of those factors that affect the performance of debt mutual funds. The data analysis shows the quarterly analysis of low duration funds and short term funds. The performance of these funds were analyzed based on the factors such as asset under management, expense ratio, yield to maturity, modified duration, Macaulay duration and asset allocation. Therefore, from the study conducted the schemes that have outperformed all together are ICICI Prudential Low Duration Fund as a result one must prefer investing in this fund.

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