IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A COMPREHENSIVE ANALYSIS OF THE TOP 25 DEBT MUTUAL FUNDS IN INDIA FOR INFORMED INVESTMENT CHOICES

Corresponding Author: Dr. L. Solomon Raj, Assistant Professor and Research supervisor, P.G & Research Department of Commerce, Loyola College (autonomous), Chennai – 600034

Co-author: J. Auxilia Merline Jacob, PhD Research Scholar, P.G & Research Department of Commerce, Loyola College (Autonomous), Chennai – 600034

ABSTRACT:

Mutual funds are a well-liked choice in India's capital markets for both novice and seasoned investors. Apart from the diminishing necessity for comprehensive market research, proficient management plays a crucial role in the expansion and advancement of the organization. It is one of the best ways for the average person to invest their money, even on a tight budget, to avoid accumulating excess cash and to receive a good return at a modest risk. The focus of this study is to evaluate how the strategy has been implemented in India's mutual fund sector under the debt fund category. The top 25 debt plans with five stars were chosen for the analysis based on their return after two, three, and five years. Statistical methods like beta, market profitability, and risk-adjusted performance indicators can be used to assess the Sortino ratio, cost ratio, and Sharpe ratio. Using the aid of this study, investors can base their selections on the past profitability of particular enterprises. Finally, before investing, investors should thoroughly assess the scheme.

Keywords: Mutual fund performance, market volatility, Return, Debt Schemes, Risk

1. INTORDUCTION:

In an active environment of India's financial market, debt mutual funds protrude as a famous choice for investors looking for stable returns and heterogenous ones. However, with the wider options available navigating the world of debt mutual funds necessitates through research and good decision-making. This extended analysis initiatives to provide investors with a comprehensive examination of the top 25 debt mutual funds. This report provides a complete picture of the debt mutual fund market by examining key performance metrics, risk portfolios, and expense ratios. Investors can have a better understanding of each fund's risk-adjusted return and potential hazards by scrutinizing it meticulously. With this proficiency, an investor can develop well-informed investment techniques based on their financial objectives and risk tolerance. In the era of market volatility and economic fluctuation, this research is a required resource for investors considering the constant growth in their investment portfolio by making wise and informed decisions about debt mutual funds in India.

2. STATEMENT OF THE PROBLEM:

Mutual fund investment has increased in its size in the midst of Indian investor over the last few years. More number of schemes and size of asset under management is the ground for its expansion. The previous study shows that new savers show greater interest towards the debt schemes rather than equity, balanced and other types of mutual fund schemes because of minimal risk and fixed income. This study analyses historical NAV, return and risk-return components for 1st year, 3rd year and 5th year. However future return does not depend fully on past return.

4. REVIEW OF LITERATURE:

Gaurav Shreekant, R. S. Rai, T. V. Raman, Gurendra Nath Bhardwaj (2019) compares the returns and hazards of equity, balanced, and debt mutual funds in India for three, five, and ten years. Samples of 60 funds each were chosen. We used data from Value Research India Private Limited and AMFI. According to the findings, equity funds provide larger returns but also carry more risk; balanced or debt funds are safer picks.

Komal B. Sharma (2020) has analyzed that Mutual funds play an important role in India's debt market, providing low-cost, diverse portfolio management options. This study compares five debt mutual funds between 2017 and 2019, utilizing variables such as NAV, total return, alpha, beta, Sharpe, and Jensen's ratios. It advises that investors evaluate statistical criteria to ensure consistent performance and make informed investment selections.

Ms. Arya S Babu, Dr. Jahnavi M , Namita P Konnur, Dr. Percy Bose .B (2021) has employed secondary data to analyze the factors impacting debt mutual fund performance. Asset management, expenditure ratio, yield to maturity, modified duration, Macaulay duration, and asset allocation were among the factors considered. According to the study's findings, the ICICI Prudential Low Duration Fund was the top performer, indicating that it is a recommended investment choice.

Sharma Komal B., Dr. Prashant Joshi (2021) examined debt, equity, and hybrid mutual fund schemes, evaluating their performance and risk-return connection using financial metrics such as rate of return, standard deviation, beta, Sharpe ratio, Jenson ratio, and Treynor ratio. In terms of CRISIL rank, most funds performed averagely, with debt mutual fund schemes outperforming the others. The majority of the funds outperformed in the Sharpe, Treynor, and Jenson ratios.

5. OBJECTIVE:

1. To analyze the best performing debt funds in India.
2. To ascertain the volatile of the funds with related to market movements.
3. To trace the risk associated with the funds.

6. RESEARCH METHODOLOGY:

Secondary data were used for the study, collected from various sources. The top 25 mutual fund schemes with a 5-star rating from value research have been selected for the study. Data were collected based on returns for the 1st year, 3rd year, and 5th year. Statistical and financial approaches are utilized to evaluate the performance of selected schemes.

6.1 Selected sample schemes:

6.1.1 Nippon Ind Ultra Short Duration Fund:

It is an open-ended investment started on January 1,2013 which had a return 7.14% since its inception. It benchmarks against the CRISIL Ultra Short Duration Debt A-I index showcasing its performance respect to similar short term debt instrument.

6.1.2 UTI Ultra Short Duration:

It is an open-ended investment that began on August 29, 2003 and has returned 6.81% since its beginning. It is tested against the NIFTY extremely short duration debt A-I index to demonstrate its performance in comparison to other short-term debt products.

6.1.3 ICICI Pru Savings:

It is an open-ended investment launched on September 27, 2002 which had a return 7.70% during its inception. It is benchmarked against the NIFTY low duration debt A-I index, observing its performance which is compared to short-term debt instruments.

6.1.4 UTI Low Duration:

It is an open-ended investment that began on March 21, 2003, and had a return of 7.15% during its inception. It is measured against the NIFTY low duration debt A-I index, to demonstrate its performance in comparison to short-term debt instruments.

6.1.5 Aditya Birla SL Money Market:

It is an open-ended investment that began on October 10, 2005 and has returned 7.44% since then. It is benchmarked against the CRISIL money market A-I index to demonstrate its performance in comparison to short-term debt securities.

6.1.6 Nippon Ind Money Market:

It is an open- ended investment schemes which was began on June 16, 2005 and had a return of 7.32% from the time of tis inception and its achievement is compared with the NIFTY money market A-I index, similar to short-term debt plans. Spending money on short -term instruments offer a stakeholders with a consistent and acceptable return.

6.1.7 ICICI Pru short term fund:

This fund is an open-ended investment started on October 25, 2001 and earned a return 7.84% since its commencement. Its accomplishment is calculated against the NIFTY SD Debt A-II index and in contrary to other short-term debt funds.

6.1.8 UTI Short Duration Fund:

It is an open-ended investment scheme commenced on August 28, 2007 which yield a return of 7.36% and its achievement is calculated against the CRISIL short duration debt A-II index, which shows a portfolio of short-term debt instruments .The fund intends to reward investors with both income and capital gains.

6.1.9 Aditya Birla SL Medium term Fund:

It is an open-ended mutual fund investment that began on March 25, 2009. This fund returns 8.55% and is compared to CRISIL medium duration debt A-III, which measures medium-term debt instruments. The fund aims to provide investors with consistent income and capital appreciation.

6.1.10 UTI Medium to Long Duration:

It is also an open-ended debt mutual fund that initially opened on May 17, 1998 and has returned 7.58%. Its performance is compared to the CRISIL medium to long duration debt A-III index, which covers an array of medium to long-term debt securities. This product's primary goal is to provide consistent income while also appreciating over time.

6.1.11 Aditya Biral SL Dynamic Bond Fund:

This fund is an open-ended investment scheme which was commenced on September 27, 2004, which gained the return of 7.57% and shows its performance comparatively to NIFTY corporate debt index A-III, which calculates corporate debt instrument. The fund expects to give investors with choices for income and capital creation.

6.1.12 ICICI Pru All Seasons Bond Fund:

This fund is an open-ended debt mutual fund scheme which was started on May 4, 2009, and had returned of 8.82% and the performance sets with NIFTY corporate debt index A-III, which showcases its performance against corporate debt instrument. The fund's objective is to satisfy the investor with constant and stable income in spite of changing market conditions.

6.1.13 ICICI Pru Corporate Bond Fund:

The fund is an open-ended debt mutual fund which was started on June 12, 2009, gained a return of 7.92% it is benchmarked against NIFTY corporate bond index A-II and compared with corporate bond. The fund's objective is to give a potential income and capital hike in first class corporate debt instrument.

6.1.14 Nippon Ind Corporate Fund:

It is an open-ended mutual fund plan started in the year September 14, 2000, earned a return of 7.42% it has been compared with NIFTY corporate bond index A-II and evaluates corporate bond fund performance. The aim of the fund is to provide investors with capital appreciation by spending money on corporate debt instruments.

6.1.15 Baroda BNP Paribas Credit Risk Fund:

It is an open-ended scheme, which earned a return of 7.83% from its introduced on January 23, 2015 and traced the performance with the CRISIL credit risk debt B-II index. The fund looks for the income which earn wide range of credit risk debt securities.

6.1.16 DSP Credit Risk Fund:

This fund is an open-ended strategy that returned 6.81% from its start in May 13, 2003. It evaluates the fund's performance using the CRISIL credit risk B-II index, which focuses on risk-adjusted funds. Funds profit from risk management for investors.

6.1.17 ICICI Pru Banking & PSU Debt Fund:

This fund is an open-ended mutual fund scheme which was commenced in the year January 1, 2010. It earned return for 7.92% from its inception and compared its performance with the benchmark index against NIFTY banking and PSU debt Index A-II. with a view to earn a regular income the fund often spends its money in debt instruments given by government.

6.1.18 Kotak Banking & PSU Debt Fund:

This is an open-ended fund that began on December 29, 1998 and has returned 7.28%. The funds are benchmarked against the CRISIL Banking and PSU Debt Index. Funding was included in debt instruments issued by banks and the government with the goal of providing a guaranteed income.

6.1.19 ICICI Pru Gilt Funds:

This fund exhibits open end mutual fund scheme that was began on August 19, 1999 and has return of 9.45%. Its accomplishment is measured by G-Sec NIFTY All-duration index. This fund aims to invest in government bonds with a view to earn stable income by protecting the investors capital.

6.1.20 SBI Magnum Gilt Fund:

This open-end fund was established on December 30, 2000, and has returned 7.98%. It tracks the G-sec NIFTY All-Duration Index. This fund primarily invests in public sector securities, generating income comparable to the overall G-Sec market.

6.1.21 HDFC Floating Rate Debt Fund:

This is an open-ended mutual fund strategy which had a return of 7.83% and it was introduced in the year January 1, 2013. It is benchmarked against CRISIL short-term bond index. The foremost objective of this fund invests in floating-rate debt securities that give investor with return that showcase market performance with short term bond market in line with minimal interest rate risk.

6.1.22 ICICI Prudential Regular Saving Fund:

This fund is an open-ended fund, started in the year March 30, 2004 and had a return of 9.92%. Its benchmarks against NIFTY 50 hybrid composite debt fund index. The main objective of the fund is to provide a constant and potential income and capital appreciation.

6.1.23 Kotak Debt Hybrid Fund:

This fund is an open-ended mutual fund plan started in the year December 2, 2003 and yield a return of 8.43%. Its performance is measured by comparing with CRISIL hybrid 35+15 conservative index. Thid fund looks into hike and balance between income and capital gain by investing in diversified portfolio of debt and equity.

6.1.24 SBI Magnum Children Benefit fund:

This fund is an open-ended mutual fund which was started in the year September 29, 2020 and had a return of 38.61%. The benchmark index for this fund is CRISIL hybrid 35+65 Aggressive Index. This fund is designed in such a way to provide opportunities for the youngster to achieve long term financial goal.

6.1.25 IDBI Short term Bond Funds:

This fund is an open-ended mutual fund and had a return of 6.45% and established in the year March 23, 2011. The fund is compared relatively with CRISIL short-duration debt A-II index. The fund spends its money in short term debt securities to deliver investors with consistent income.

6.2 TOOLS APPLIED FOR THE STUDY:

AVERAGE:

Average is calculated by adding all the selected data and dividing by the total number of data.

STANDARD DEVIATION:

Standard Deviation is a statistical measure which is used to calculate the wide distribution among the data from mean or average value. It expresses the deviations carried out in the returns of Selected Debt schemes for the study period. Greater the deviations mean higher the risk for that scheme.

ALPHA:

Alpha is used to measure the performance of the fund which indicates when investor or portfolio manager has organized to exceed the market return or benchmark index over some period. Alpha with positive values shows that fund has outperformed the benchmark index and if its negative value it implies that fund does not perform well.

BETA:

Beta is one of the risks adjusted metric which is used to assess the fund whether it meets your risk profile. Beta is measuring the volatility of the mutual fund by balancing it against the standard value / benchmark index. Beta is indicated as 1, when beta value is equal to 1 the fund is highly fluctuating than the index and when it is less than 1 it signifies mutual fund is less fluctuating than the benchmark index.

SHARPE RATIO:

It measures the excess return earned by the portfolio over the rate of risk-reduced securities. This shows the fund performance against risk is calculated in terms of standard deviation and represents the excess return achieved by taking the risk greater than the risk-free rate. A higher Sharpe ratio means better performance for schemes. Expressed negative value Poor performance for selected portfolios.

SORTINO RATIO:

Sortino ratio is one of the statistical tools which is defined as the variation of Sharpe ratio from the sum of overall volatility by using the asset's standard deviation of negative portfolio return it is very useful for the investor and analyst to assess an investment return for a given level of negative or downside risk.

7. DATA ANALYSIS:

TABLE 7.1 NET ASSET VALUE AND RETURNS (1 YEAR, 3 YEARS, 5 YEARS) AND AVERAGE RETURNS

S.NO	FUND NAME	NAV (In ₹)	RETURNS			AVERAGE
			1Y (In %)	3Y (In %)	5Y (In %)	
1	NIPPON IND ULTRA SHORT DURATION	3660.7	6.9	6.6	4.9	6.13
2	UTI ULTRA SHORT DURATION	3855.3	6.9	5.9	5.1	5.96
3	ICICI PRU SAVINGS	488.9	7.8	5.6	6.6	6.67
4	UTI LOW DURATION	3199.8	7.3	7.1	4.6	6.33
5	ADITYA BIRLA SL MONEY MANAGER	3334.0	7.6	5.6	6.1	6.43
6	NIPPON IND MONEY MARKET	3745.7	7.5	5.6	6.0	6.36
7	ICICI PRU SHORT TERM	54.0	7.7	5.8	7.2	6.90
8	UTI SHORT DURATION	28.6	7.6	7.0	5.2	6.6
9	ADITYA BIRLA SL MEDIUM TERM	34.1	7.5	12.5	8.7	9.56
10	UTI MEDIUM TO LONG DURATION	66.0	7.6	9.5	4.8	7.3
11	ADITYA BIRLA SL DYNAMIC BOND	41.4	7.9	6.7	5.9	6.83
12	ICICI PRU ALL SEASONS BOND	33.0	7.9	6.0	7.8	7.23
13	ICICI PRU CORPORATE BOND	26.7	7.8	5.8	7.3	6.96
14	NIPPON IND CORPORATE BOND	53.5	7.9	5.9	6.7	6.83
15	BARODA BNP PARIBAS CREDIT RISK	19.9	7.5	10.1	7.1	8.23
16	DSP CREDIT RISK	39.4	16.2	9.3	7.3	10.93
17	ICICI PRU BANKING & PSU DEBT	29.4	7.7	5.7	7.1	6.83
18	KOTAK BANKING & PSU DEBT	58.7	7.5	5.5	7.1	6.7
19	ICICI PRU GILT FUND	91.9	8.7	6.0	8.0	7.56
20	SBI MAGNUM GILT FUND	59.4	9.3	6.0	8.2	7.83
21	HDFC FLOATING RATE DEBT	44.7	7.8	5.8	6.8	6.8
22	ICICI PRUDENTIAL REGULAR SAVING FUND	3319.77	6.9	8.7	8.0	7.90
23	KOTAK DEBT HYBRID FUND	1632.44	4.9	10.4	8.2	7.90
24	SBI MAGNUM CHILDREN BENEFIT FUND	89.94	3.5	11.5	7.4	7.53
25	IDBI SHORT TERM BOND FUND	31.69	3.0	8.3	6.1	5.84

INTERPRETATION:

The above table displays the Net Asset Value and return for 1st year, 3rd year and 5th year and average return. Nippon Ind Ultra Short Duration Fund has a NAV of ₹ 3660.7(Cr) and its return during 1st year is 6.9%, 3rd year is 6.6% and 5th year is 4.9% and the average return is 6.13%. UTI Ultra Short Duration has a NAV of ₹ 3855.3(Cr) and its return during 1st year is 6.9%, 3rd year is 5.9% and 5th year is 5.1% and the average return is 5.96%. ICICI Pru Savings Fund has a NAV of ₹ 488.9(Cr) and its return during 1st year is 7.8%, 3rd year is 5.6% and 5th year is 6.6% and the average return is 6.67%. UTI Low Duration Fund has a NAV of ₹ 3199.8(Cr) and its return during 1st year is 7.3%, 3rd year is 7.1% and 5th year is 4.6% and the average return is 6.33%. Aditya Birla SL Money Manager Fund has a NAV of ₹ 3334.0(Cr) and its return during 1st year is 7.6%, 3rd year is 5.6% and 5th year is 6.1% and the average return is 6.43%. Nippon Ind Money Market Fund has a NAV of ₹ 3745.7(Cr) and its return during 1st year is 7.5%, 3rd year is 5.6% and 5th year is 6.0% and the average return is 6.36%. ICICI Pru Short Term Fund has a NAV of ₹ 54.0(Cr) and its return during 1st year is 7.7%, 3rd year is 5.8% and 5th year is 7.2% and the average return is 6.90%. UTI Short Duration Fund has a NAV of ₹ 28.6(Cr) and its return during 1st year is 7.6%, 3rd year is 7.0% and 5th year is 5.2% and the average return is 6.6%. Aditya Birla SL Medium Term Fund has a NAV of ₹ 34.1(Cr) and its return during 1st year is 7.5%, 3rd year is 12.5% and 5th year is 8.7% and the average return is 9.56%. UTI Medium to Long Duration Fund has a NAV of ₹ 66.0(Cr) and its return during 1st year is 7.6%, 3rd year is 9.5% and 5th year is 4.8% and the average return is 7.3%. Aditya Birla SL Dynamic Bond Fund has a NAV of ₹ 41.4(Cr) and its return during 1st year is 7.9%, 3rd year is 6.7% and 5th year is 5.9% and the average return is 6.83%. ICICI Pru All Seasons Bond Fund has a NAV of ₹ 33.0(Cr) and its return during 1st year is 7.9%, 3rd year is 6.0% and 5th year is 7.8% and the average return is 7.23%. ICICI Pru Corporate Bond Fund has a NAV of ₹ 26.7(Cr) and its return during 1st year is 7.8%, 3rd year is 5.8% and 5th year is 7.3% and the average return is 6.96%. Nippon Ind Corporate Bond Fund has a NAV of ₹ 53.5(Cr) and its return during 1st year is 7.9%, 3rd year is 5.9% and 5th year is 67% and the average return is 6.83%. Baroda BNP Paribas Credit Risk Fund has a NAV of ₹ 19.9(Cr) and its return during 1st year is 7.5%, 3rd year is 10.1% and 5th year is 7.1% and the average return is 8.23%. DSP Credit Risk Fund has a NAV of ₹ 39.4(Cr) and its return during 1st year is 16.2%, 3rd year is 9.3% and 5th year is 7.3% and the average return is 10.93%. ICICI Pru Banking and PSU Debt Fund has a NAV of ₹ 29.4(Cr) and its return during 1st year is 7.7%, 3rd year is 5.7% and 5th year is 7.1% and the average return is 6.83%. Kotak Banking and PSU Debt Fund has a NAV of ₹ 58.7(Cr) and its return during 1st year is 7.5%, 3rd year is 5.5% and 5th year is 7.1% and the average return is 6.7%. ICICI Pru Gilt Fund has a NAV of ₹91.9(Cr) and its return during 1st year is 8.7%, 3rd year is 6.0% and 5th year is 8.0% and the average return is 7.56%. SBI Magnum Gilt Fund has a NAV of ₹ 59.4(Cr) and its return during 1st year is 9.3%, 3rd year is 6.0% and 5th year is 8.2% and the average return is 7.83%. HDFC Floating Rate Debt Fund has a NAV of ₹ 44.7(Cr) and its return during 1st year is 7.8%, 3rd year is 5.8% and 5th year is 6.8% and the average return is 6.8%. ICICI Prudential Regular Savings Fund has a NAV of ₹ 3319.77(Cr) and its return during 1st year is 6.9%, 3rd year is 8.7% and 5th year is 8.0% and the average return is 7.90%. Kotak Debt Hybrid Fund has a NAV of ₹ 1632.44(Cr) and its return during 1st year is 4.9%, 3rd year is 10.4% and 5th year is 8.2% and the average return is 7.9%. SBI Magnum Children Benefit Fund has a NAV of ₹ 89.94(Cr) and its return during 1st year is 3.5%, 3rd year is 11.5% and 5th year is 7.4% and the average return is 7.53%. IDBI Short Term Bond Fund has a NAV of ₹ 31.69(Cr) and its return during 1st year is 3.0%, 3rd year is 8.3% and 5th year is 6.1% and the average return is 5.84%.

FIGURE 7.1.1

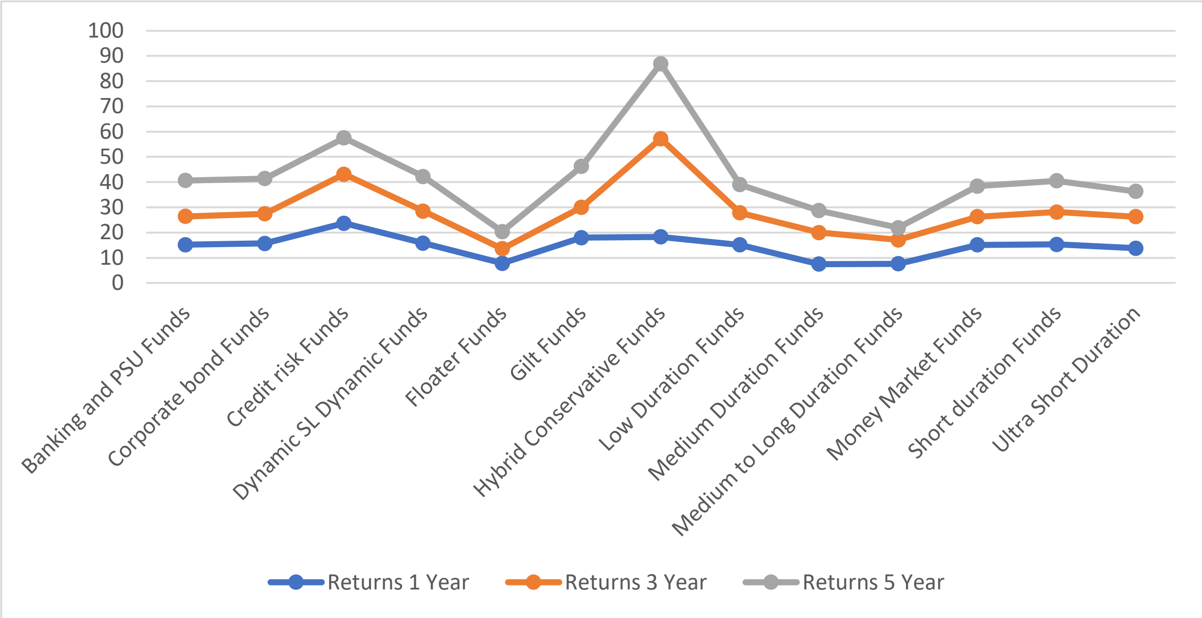


TABLE 7.2 SHARPE RATIO, SORTINO RATIO,EXPENSE RATIO

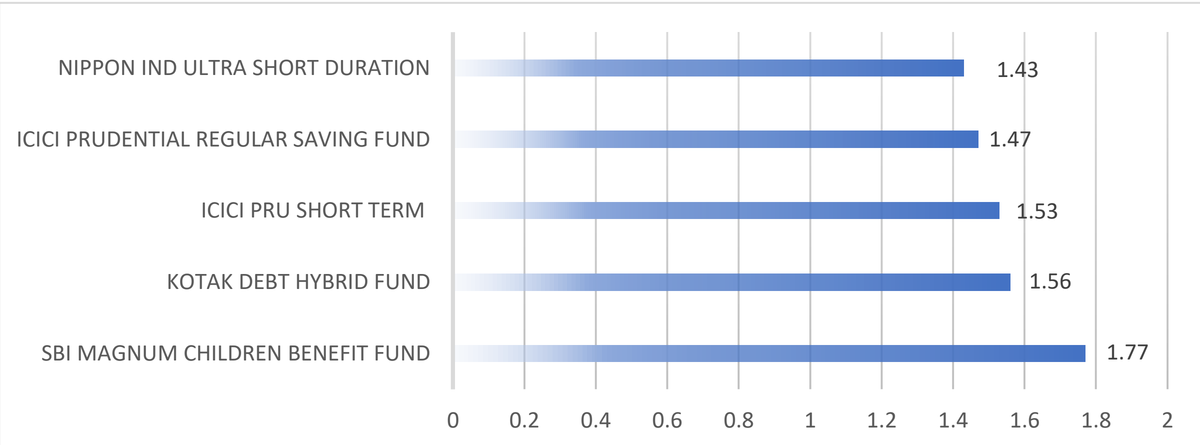
S.NO	FUND NAME	SHARPE RATIO	RANK	SORTINO RATIO	RANK	EXPENSE RATIO	RANK
1.	NIPPON IND ULTRA SHORT DURATION	1.43	5	5.82	3	0.38	9
2.	UTI ULTRA SHORT DURATION	0.87	15	4.19	5	0.44	12
3.	ICICI PRU SAVINGS	0.60	22	0.74	25	0.40	11
4.	UTI LOW DURATION	0.81	17	4.46	4	0.36	7
5.	ADITYA BIRLA SL MONEY MANAGER	1.06	12	1.78	16	0.21	1
6.	NIPPON IND MONEY MARKET	1.11	9	2.18	14	0.24	2
7.	ICICI PRU SHORT TERM	1.53	3	2.14	15	0.45	13
8.	UTI SHORT DURATION	0.95	13	3.66	8	0.37	8
9.	ADITYA BIRLA SL MEDIUM TERM	0.85	16	6.91	1	0.85	21
10.	UTI MEDIUM TO LONG DURATION	0.80	18	3.78	7	1.25	23
11.	ADITYA BIRLA SL DYNAMIC BOND	0.88	14	2.23	13	0.64	18
12.	ICICI PRU ALL SEASONS BOND	1.19	6	1.62	17	0.53	16

13.	ICICI PRU CORPORATE BOND	1.13	8	1.53	18	0.32	5
14.	NIPPON IND CORPORATE BOND	1.07	11	1.47	19	0.34	6
15.	BARODA BNP PARIBAS CREDIT RISK	1.14	7	6.23	2	0.79	19
16.	DSP CREDIT RISK	0.70	21	4.13	6	0.40	11
17.	ICICI PRU BANKING & PSU DEBT	1.11	9	1.38	21	0.39	10
18.	KOTAK BANKING & PSU DEBT	0.75	20	0.99	23	0.37	8
19.	ICICI PRU GILT FUND	0.75	20	0.98	24	0.56	17
20.	SBI MAGNUM GILT FUND	0.76	19	1.40	20	0.46	14
21.	HDFC FLOATING RATE DEBT	1.10	10	1.36	22	0.26	3
22.	ICICI PRUDENTIAL REGULAR SAVING FUND	1.47	4	2.63	11	0.91	22
23.	KOTAK DEBT HYBRID FUND	1.56	2	2.46	12	0.50	15
24.	SBI MAGNUM CHILDREN BENEFIT FUND	1.77	1	2.88	10	0.82	20
25.	IDBI SHORT TERM BOND FUND	0.80	18	3.02	9	0.28	4

INTERPRETATION:

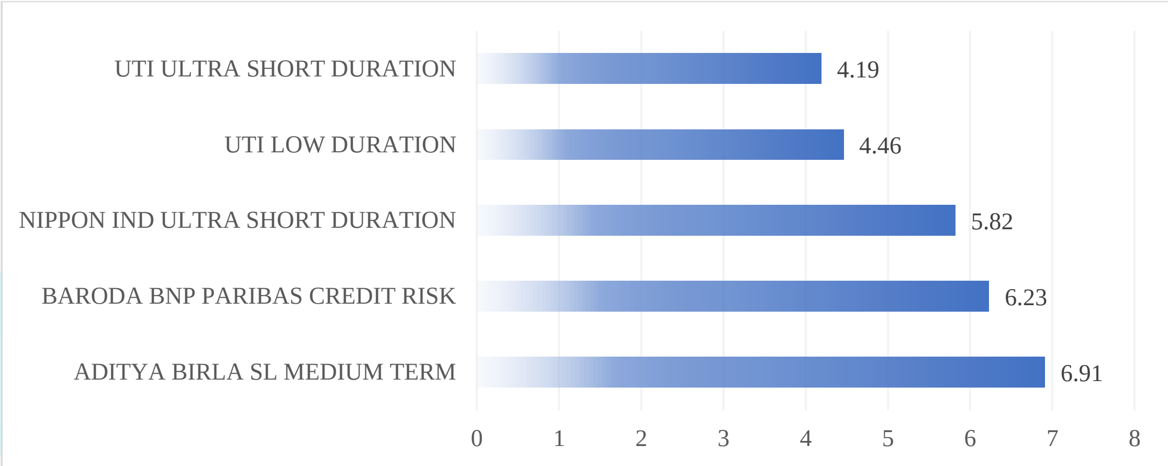
The table above displays the significant performance indicators for several mutual funds, offering information on their risk-adjusted returns, expense ratios, and characteristics. The reports include characteristics such as the Sharpe ratio, Sortino ratio, and expense ratio for 25 different funds. The table also shows a variety of fund categories, such as ultra-short duration funds, low duration funds, money market funds, medium to long duration funds, and many more.

FIGURE 7.2.1



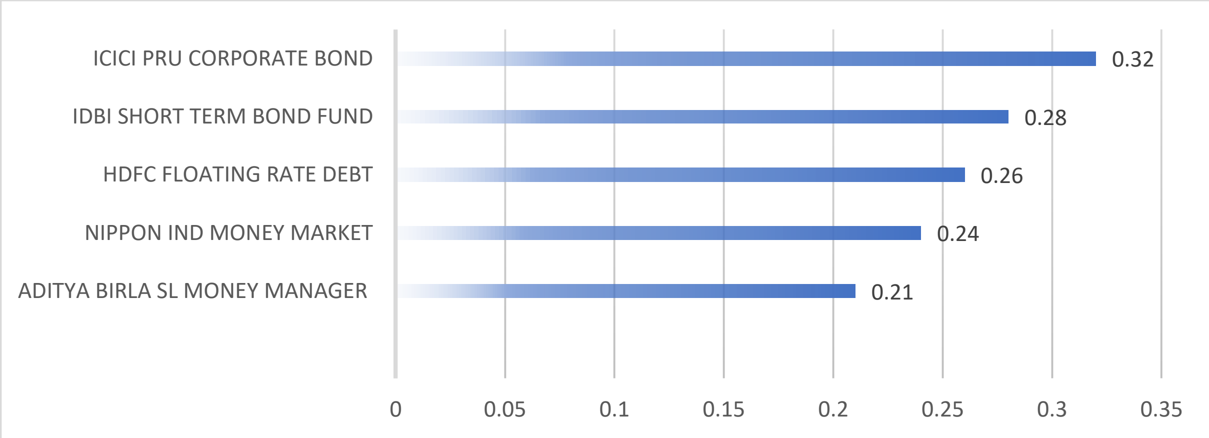
The Sharpe ratio gradings yield the crucial intuition into the risk-adjusted return of major Indian Debt Mutual Fund. SBI Magnum Children Benefit Fund is the top most performer with the high Sharpe ratio of 1.77 showing the robust risk-adjusted return followed by Kotak Debt Hybrid Fund which has a Sharpe ratio of 1.56 implying positive performance. The ICICI Prudential regular saving fund also shows a strong risk-adjusted return, ranking fourth with the Sharpe ratio of 1.47 and holding the fifth place Nippon Ind Ultra Short Duration Fund has the Sharpe ratio of 1.43. Then finding denote that the investor who are seeking consistent growth and development in their investment portfolios may realize these funds applicable to them. How ever before taking an investment decision investor should analyze thoroughly and consider other factors such as investing objectives and fund strategies.

FIGURE 7.2.2



The Sortino ratio classification provide valuable information on downside risk-adjusted return of enlisted debt funds in India. Aditya Birla SL Medium Term Fund is the best performer with the Sortino ratio of 6.91indicating higher return compared downside risk. Secondly Baroda BNP Paribas Credi Risk Fund which has a Sortino ratio of 6.23 showing greater performance followed by Nippon Ind Ultra Short Duration with the ratio of 5.82 demonstrating good accomplishment, ranking fourth UTI Low Duration Fund which yield 4.46 and holding the fifth position UTI Ultra Short Duration which shows 4.19 both the funds showing moderate performance. These findings implies that investor seeking reliability and regular return particularly in case of downturn may seek these funds suitable. However, investor must undertake due diligence and thoroughly analyze other criteria such as investment, before making financial selection taking into an account objectives and risk tolerance.

FIGURE 7.2.3



The Expense ratio encompasses that the fund which has lower ratio generally results in higher return for investors over time. Among the listed funds Aditya Birla SL Money Manager striking with the lowest expense ratio of 0.21 creating an attractive option for cost conscious investor who are looking for short term investment. In the second place stands the Nippon Ind Money Market having the ratio 0.24 , furthermore HDFC Floating Rate Debt fund showcasing the expense ratio of 0.26 and in fourth place claiming the IDBI Short Term Bond Fund which has the ratio of 0.28. Holding the fifth position ICICI Pru Corporate Bond having the expense ratio of 0.32 certainly impacting good return over some period. Investor should cautiously examine the expense ratio along with the other factors such as fund performance, investment objective and risk tolerance before making investment decision.Actual analysis assures compatibility with individual financial goals and maximizes the likelihood of obtaining targeted investment outcomes.

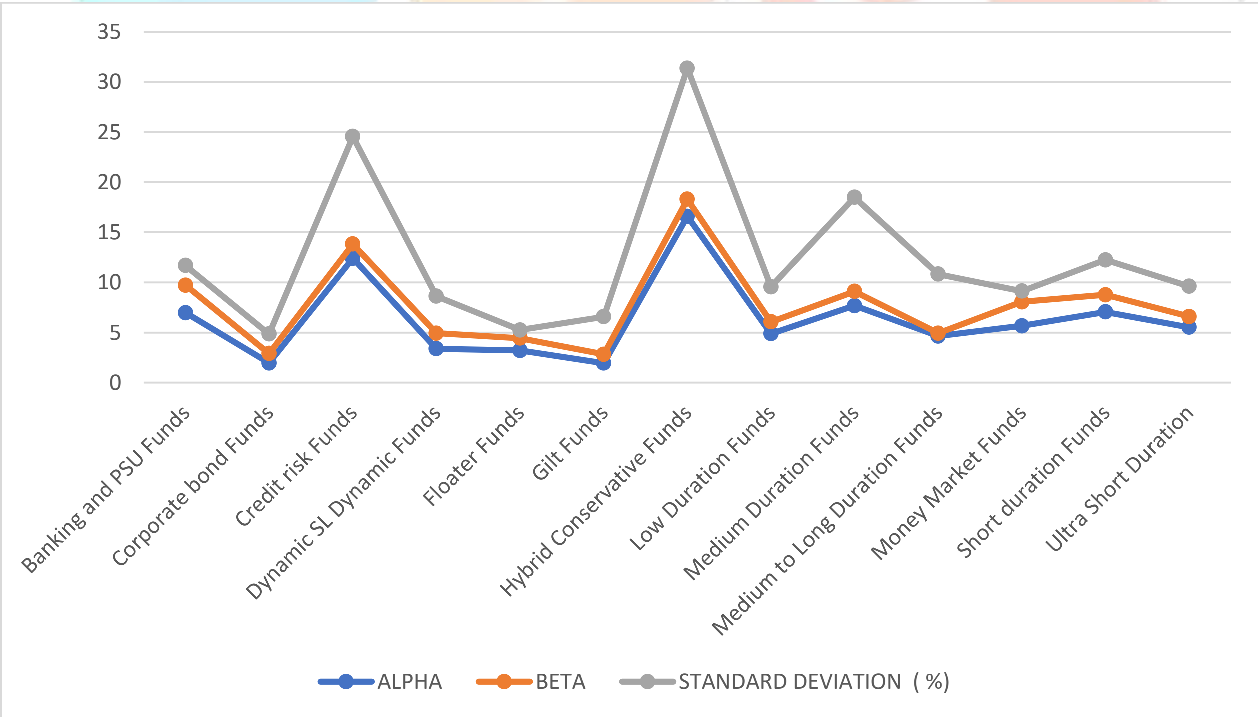
TABLE 7.3 ALPHA, BETA, STANDARD DEVIATION

S.NO	FUND NAME	ALPHA	BETA	STANDARD DEVIATION (in %)
1.	Nippon Ind ultra short duration	3.38	0.63	1.52
2.	UTI ultra short duration	2.14	0.44	1.50
3.	ICICI Pru savings	2.97	1.27	0.94
4.	UTI low duration	1.91	-0.08	2.55
5.	Aditya Birla SL money manager	2.91	1.23	0.55
6.	Nippon Ind money market	2.76	1.16	0.52
7.	ICICI Pru short term	3.89	1.34	0.90
8.	UTI short duration	3.16	0.38	2.57
9.	Aditya Birla SL Medium term	7.68	1.42	9.38
10.	UTI Medium to Long duration	4.65	0.29	5.88
11.	Aditya Birla SL Dynamic bond	1.91	0.85	2.35
12.	ICICI Pru all seasons bond	1.47	0.70	1.34
13.	ICICI Pru corporate bond	0.91	0.44	0.88

14.	Nippon Ind corporate bond	1.05	0.51	1.07
15.	Baroda BNP Paribas credit risk	3.21	-1.26	4.90
16.	DSP Credit risk	9.19	2.69	5.83
17.	ICICI Pru banking & PSU debt	3.30	1.21	0.92
18.	Kotak banking & PSU debt	3.68	1.54	1.04
19.	ICICI Pru Gilt fund	1.03	0.48	2.02
20.	SBI magnum Gilt fund	0.91	0.40	1.74
21.	HDFC Floating rate Debt	3.21	1.23	0.81
22.	ICICI Prudential regular saving fund	2.39	0.52	3.15
23.	Kotak debt hybrid fund	3.83	0.69	4.34
24.	SBI Magnum children benefit fund	6.36	0.36	4.48
25.	IDBI short term bond fund	4.01	0.13	1.12

The above table represents an array of mutual funds displaying its performance and risk characteristics providing noteworthy discernment for investor looking to enhance their investment portfolio. Each fund's alpha, beta and standard deviation give a full picture of its risk-adjusted return and volatility.

FIGURE 7.3.1



The alpha fund provides alternatives among various duration and risk levels encompassing ultrashort, short, medium to long, and corporate bond funds. From an array of debt mutual funds Hybrid conservative fund shows a high alpha value of 16.59 depicting strong performance related to the benchmark index contrary to the Gilt Fund has the lowest alpha value of 1.94 which does not carry out well performing below the benchmark index.

Beta debt funds give a wide range of options with diverse threat and return profiles. Conservative choices like Gilt fund and corporate bond funds yield 0.88 and 0.95 providing stability with lower returns. A credit risk fund gives an average return of 1.43 while a Hybrid conservative fund offers a moderate to high return of 1.7.The period ranges from ultra-short (1.07) to medium (1.42) to accommodate various investment horizons. Here, the market risk is low, and funds do not vary in response to market fluctuations.

The standard deviation represents the dispersion of returns around the mean, indicating the currency's volatility and risk. Funds with lower volatility, such as ICICI Pru Savings and ICICI Pru Corporate Bonds, provide safer returns and lower risk. On the other hand, Aditya Birla, SL, and UTI Medium Term Funds have a greater standard deviation, making them more volatile and hazardous. As a result, investors should exercise caution when considering both risks.

CONCLUSION:

Finally, this comprehensive analysis of the top 25 debt mutual funds in India is vital resources for investors making an effort to get around the intricate environment of financial market. This research enables the investor to make informed investment decision harmonious with their financial goals and risk tolerance by providing a great understanding into significant performance metrics, risk consideration and expense ratio with the more profound comprehension of the intricacies of debt mutual fund investor may create sound portfolio that provide stability income and development. Potential increase in their long-term financial success and flexibility in changing market dynamic.

REFERENCES:

1. Shreekant, Gaurav, et al. "Comparing performance of equity, balanced and debt mutual funds–empirical evidences from India." International Journal of Innovative Technology and Exploring Engineering, July 2019, Volume 8, Issue 9, PP:2167-2162.

2. Sharma, K. B. “Performance analysis of mutual fund: A comparative study of the selected debt mutual fund scheme in India”. A Global Journal of Interdisciplinary Studies. DOI: https://doi. org/10.47968/5628, May 2020, Volume 3, Issue 2, PP:5-8

3. Babu, Ms. Arya S., et al "A Study on Analysis of Factors Affecting Debt Mutual Fund Performance in India." Annals of the Romanian Society for Cell Biology” May 2021, Volume 25, Issue 6, PP:1156-1171.

4. Sharma, Komal, and Prashant Joshi. "A Comparative Study on Performance Evaluation of Selected Debt, Equity and Hybrid Mutual Fund Schemes in India." Gap Gyan-A Global Journal of Social Sciences, April-June 2021, Volume 4, Issue 2, PP: 34-40.

5. Shreekant, Gaurav, et al. "Comparing performance of equity, balanced and debt mutual funds–empirical evidences from India." International Journal of Innovative Technology and Exploring Engineering, July 2019, Volume 8, Issue 9, PP:2167-2162.

Websites:

1. Asset Management Company (AMC) - List of AMC Mutual Fund in India (groww.in)

2. www.moneycontrol.com

Journals:

1. The Sunday business line 25th February 2024 PP:10,11

2. The economics times ET Wealth December 26 to January 1 2023 PP:17