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(RESEARCH ARTICLE)

Comparative Analysis of Equity and Debt Mutual Fund Performance and Investor Preferences

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Abstract

This study investigates the comparative performance of equity and debt mutual funds and examines investor preferences in the Indian retail market. Mutual funds play a pivotal role in channeling savings into capital markets, providing both return opportunities and risk management. The report utilizes both primary data—collected through a structured survey of 263 respondents—and secondary data from reliable sources like AMFI and SEBI. Key variables analyzed include investment objective, risk tolerance, demographic influence, fund-switching behavior, and satisfaction levels. The findings suggest that equity mutual funds attract younger, risk-tolerant investors for long-term capital appreciation, while debt funds cater to conservative investors seeking capital safety and stable returns. The study underscores the importance of investor awareness and recommends enhanced financial literacy initiatives and customized advisory services to improve investment decisions and align them with individual financial goals.

Keywords: Mutual Funds; Equity Funds; Debt Funds; Hybrid Funds; Risk-Return Analysis; Performance Evaluation; Crisil Rank; Sharpe Ratio; Jensen's Alpha; Treynor Ratio

1 Introduction

Mutual funds have gained popularity in India due to their ability to pool resources from various investors and offer diversified investment options with professional management. Among the various types, equity and debt mutual funds stand out as the most commonly chosen by retail investors. Equity funds aim for capital appreciation by investing in stocks and are ideal for investors with a higher risk appetite and a longer investment horizon. In contrast, debt funds invest in fixed-income instruments like bonds and are suitable for those seeking stability and lower risk. This study explores how investors choose between these two fund types and compares their performance, aiming to offer insights into investor behavior and the effectiveness of mutual fund investments in meeting different financial goals.

1.1 Need of study

The mutual fund industry in India witnessed remarkable growth, offering a wide range of investment options to cater to diverse investor profiles. With increasing financial awareness and accessibility to investment platforms, retail participation in mutual funds—especially in equity and debt categories—has surged. However, despite this growth, many investors still lack clarity in aligning their investment choices with their risk appetite, financial goals, and market conditions. There is a pressing need to understand how investors perceive and differentiate between equity and debt mutual funds, and whether their preferences are supported by actual performance outcomes. Furthermore, market volatility, regulatory changes, and evolving investor demographics demand a deeper evaluation of behavior patterns and satisfaction levels. This study aims to fill this gap by analyzing investor preferences, behavior, and demographic

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factors alongside fund performance. The insights derived can help fund managers, financial advisors, and policy makers tailor their offerings and strategies more effectively, while also promoting better financial decision-making among investors.

2 Review of literature

- **Gupta, L.C. (2001):** This study explores how rising financial literacy and urbanization in India have shifted investor preferences from traditional savings to mutual funds. Gupta distinguishes between equity funds, which attract risk-tolerant investors seeking long-term wealth, and debt funds, preferred by those seeking capital protection and regular income.
- **Tripathi, V., & Kumar, A. (2016):** This research evaluates the performance of debt mutual funds over five years, finding that they offer stable returns with lower volatility than equity. Debt funds are favored by risk-averse investors focused on capital preservation and income generation.
- **Rao, D.N., & Madhavi, L. (2018):** A comparative analysis of equity and debt mutual funds from 2012 to 2017 reveals that equity funds perform better in rising markets but are volatile, while debt funds provide stability and act as a hedge in falling markets. Conservative investors prefer debt funds, while aggressive one's lean toward equity funds.
- **Kaur, M., & Kaushik, K. (2011):** This study finds that age, income, occupation, and risk tolerance influence mutual fund preferences. Younger professionals and high-income individuals prefer equity funds, while retirees opt for debt funds due to their lower risk and stable returns.
- **Sondhi, H., & Jain, S. (2010):** The study shows that most investors are aware of equity funds but have limited understanding of debt funds. Financial literacy programs could improve investor awareness, leading to more balanced portfolios across equity and debt schemes.
- **Chakrabarti, S., & Jaiswal, B. (2016):** This research examines the role of SEBI regulations in enhancing mutual fund transparency and investor protection. The introduction of the Risk-o-Meter has made it easier for investors to select funds that align with their risk tolerance.
- **Agarwal, V., & Mirza, N. (2017):** This paper compares the risk and performance of equity mutual funds across market cycles, emphasizing that while equity funds perform better in bull markets, they suffer losses in bear markets. Risk-seeking investors prefer equity funds, while more stable investors choose debt funds.
- **Bhole, L.M., & Jitendra, M. (2000):** This study explores how India's debt market's growth has boosted the popularity of debt mutual funds, particularly among investors looking to avoid risk. Debt funds are especially appealing during economic instability or market downturns.

2.1 Research Gap:

While existing literature extensively covers mutual fund performance metrics, risk-return trade-offs, and general investor behavior, most studies tend to analyze equity and debt funds in isolation rather than in direct comparison. Additionally, many works focus primarily on either quantitative performance (NAV, returns, standard deviation) or demographic determinants of investor choice, without integrating both perspectives in a unified framework. Further, several studies are outdated or predate the recent shifts in retail investment behavior triggered by digital platforms, post-COVID market conditions, and regulatory changes by SEBI. Very few empirical studies have combined both primary data on investor preferences and secondary data on fund performance to offer a holistic comparison of how and why investors choose between equity and debt mutual funds. This research aims to bridge this gap by combining both quantitative analysis and behavioral insights from investors in a post-pandemic, tech-enabled investing environment.

2.2 Research objectives:

- To evaluate and compare the historical performance of equity and debt mutual funds.
- To assess investor preferences between equity and debt mutual funds.
- To analyze the perception of risk and return associated with equity and debt mutual funds among investors.
- To study the impact of demographic variables on the preference for equity or debt mutual funds

2.3 Hypothesis

Hypothesis 1:

- **H_0:** There is no significant difference in investor perception regarding which mutual fund type offers better risk-adjusted returns.

- **H_1:** There is a significant difference in investor perception regarding which mutual fund type offers better risk-adjusted returns**.**

Hypothesis 2:

- **H_0:** There is no association between investor risk appetite and their choice of mutual fund type.
- **H_1:** There is an association between investor risk appetite and their choice of mutual fund type.

3 Research methodology

This study uses a mixed-methods approach, combining both primary and secondary data to provide a comprehensive analysis of equity and debt mutual funds. The primary data is collected through a structured questionnaire, while secondary data comes from trusted sources such as AMFI, SEBI, and mutual fund reports.

3.1 Type of Research

- Descriptive Research: Captures investor preferences and perceptions about mutual fund selection.
- Analytical Research**:** Compares the historical performance of equity and debt mutual funds using risk-return metrics like the Sharpe ratio and standard deviation.

3.2 Data Collection Methods

- Primary Data: Collected via a structured questionnaire distributed through Google Forms. The questionnaire covers:
  - Demographic details
  - Investment preferences
  - Risk and return perceptions.
  - Factors influencing investment decisions.
- Secondary Data: Sourced from AMFI, SEBI, mutual fund reports, and academic journals. This data includes historical performance figures and risk ratios.

3.3 Sample Design

- Population: Retail investors in Bangalore(India) with experience or interest in mutual fund investments.
- Sample Size: 263 respondents.
- Sampling Technique: Convenience sampling using Google Forms to gather diverse responses from investors.

3.4 Data Analysis Techniques

- Descriptive Statistics: Used to summarize survey data (mean, median, percentages).
- Comparative Analysis: Analyzes historical performance metrics to compare equity and debt mutual funds.
- Inferential Statistics: Chi-square tests and cross-tabulations to analyze relationships between demographic factors and investment preferences.
- Graphical Representation: Data is visualized using bar charts, pie charts, and line graphs for clearer interpretation.

3.5 Statistical Tools Used

- **Rate of Return (RoR):** Calculates the percentage gain or loss on an investment over a specific period, reflecting its profitability.
- **Beta:** Assesses a fund's volatility relative to the market, where a beta above 1 indicates higher risk and below 1 indicates lower risk.
- **Standard Deviation:** Indicates how much a fund's returns deviate from its average return, representing total risk or volatility.
- **Sharpe Ratio:** Evaluates risk-adjusted returns by comparing excess returns over the risk-free rate to the standard deviation.
- **Jensen's Ratio:** Measures a portfolio's excess return over the expected return, adjusted for risk using the CAPM model.
- **Treynor's Ratio:** Calculates risk-adjusted returns based on systematic risk (beta), showing the return per unit of market risk.

- **Chi-square Test:** A statistical test used to identify relationships between categorical variables such as demographics and fund preferences.
- **Cross Tabulation:** A method to examine relationships between two or more variables by displaying data in a tabular format.
- **Graphical Representation (Charts and Graphs):** Visual tools like bar charts, pie charts, and line graphs used to illustrate trends, comparisons, and distributions in the data.

4 Data analysis and interpretation

4.1 Primary Data

Table 1 Gender Distribution

Gender Distribution Of Respondents		
Gender	**No of Respondents**	**Percentage**
Male	235	89.35%
Female	28	10.64%
Total	263	100%

Interpretation: Male respondents form 89.35% of the sample, while females make up only 10.64%. This shows a major skew toward male participation in mutual funds.

Table 2 Educational Qualification

Educational level	Frequency	Percentage
High School	25	9.50%
Undergraduate	102	38.70%
Post Graduate	109	41.44%
Professional course	27	10.20%
Total	263	100%

Interpretation: Most respondents are Post Graduates (41.44%), followed by Undergraduates (38.70%), indicating that mutual fund investors are largely well-educated. Professional course holders account for 10.20%, and only 9.50% have studied up to High School, showing limited participation from less-educated groups.

Table 3 Occupation of Respondents

Occupation	Frequency	Percentage
Salaried	131	49.80%
Self employed	85	32.31%
Professionals	42	15.96%
Other	5	1.90%
Total	263	100%

Interpretation: Nearly half the respondents are Salaried (49.80%), showing strong participation from fixed-income earners. Self-employed individuals make up 32.31%, indicating significant interest from business owners. Professionals account for 15.96%, while the ‘Other’ category is minimal at 1.90%, reflecting limited representation outside the main occupational groups.

Table 4 Annual Income Frequency Distribution

Annual Income	Frequency	Percentage
Less than Rs.3lakhs	90	34.22%
Rs.3Lakhs -7Lakhs	74	28.13%
Rs.7Lakhs- 15Lakhs	66	25%
Rs.15Lakhs- 25Lakhs	24	9.12%
Above Rs.25Lakhs	9	3.42%
Total	263	100%

Interpretation: A large portion of respondents earn less than ₹3 lakhs annually (34.22%), followed by ₹3–7 lakhs (28.13%) and ₹7–15 lakhs (25%), showing that most investors belong to low to middle-income groups. Higher-income brackets—₹15–25 lakhs (9.12%) and above ₹25 lakhs (3.42%)—have comparatively lower representation.

Table 5 Investing Experience

Experience	Frequency	Percentage
< 1 Year	180	68.44%
1-3Years	52	19.77%
3-5Years	23	8.74%
> 5Years	8	3%
Total	263	100%

Interpretation: A majority of respondents are new investors with less than 1 than year of experience (68.44%), indicating rising recent interest in mutual funds. Those with 1–3 years of experience make up 19.77%, while experienced investors (3–5 years and above 5 years) form a small segment at 8.74% and 3%, respectively.

Table 6 Do You Currently Invest in Mutual Funds

Responses	Frequency	Percentage
Yes	172	65.40%
No	72	27.40%
Planning to Invest Soon	19	7.20%

Interpretation: A majority of respondents have already invested (65.40%), reflecting active mutual fund participation. 27.40% have not invested, and 7.20% are planning to invest soon, suggesting scope for future investor expansion.

Table 7 Preferred Type of Fund

Fund Type	Frequency	Percentage
Equity	92	35%
Debt	97	36.90%
Hybrid	61	23.20%

Not Sure	13	4.90%

Interpretation: Debt funds are slightly more preferred (36.90%) than equity funds (35%), indicating a balanced risk appetite among investors. Hybrid funds attract 23.20%, showing interest in mixed-risk options, while 4.90% are unsure, suggesting a need for better awareness.

Table 8 Primary Reason for Investing in Mutual Funds (263 responses)

Reason	Percentage
Wealth Creation	23.2%
Diversification	9.9%
Tax Saving	12.2%
Capital Preservation	31.6%
Regular Income	21.7%
Short-Term Returns	1.4%

Interpretation: Capital preservation (31.6%) is the leading reason for investing, showing a cautious approach among investors. Wealth creation (23.2%) and regular income (21.7%) follow closely, reflecting long-term and income-focused goals. Tax saving (12.2%) and diversification (9.9%) show moderate interest, while short-term returns (1.4%) are the least prioritized.

Table 9 Investment Horizon (263 responses)

Horizon	Percentage
Less than 1 year	37.6%
1–3 years	31.9%
3–5 years	24.0%
More than 5 years	6.5%

Interpretation: Most investors prefer a short-term horizon, with 37.6% investing for less than 1 year and 31.9% for 1–3 years, indicating a focus on quick returns. Only 24% invest for 3–5 years, and a minimal 6.5% hold investments for over 5 years, reflecting limited long-term commitment.

Table 10 Risk Appetite (263 responses)

Risk Level	Percentage
Low	31.9%
Moderate	55.9%
High	12.2%

Interpretation: The majority of respondents have a moderate risk appetite (55.9%), suggesting a balanced approach to investment. 31.9% prefer low-risk investments, reflecting caution, while 12.2% are willing to take high risks, indicating a smaller but more aggressive investor segment.

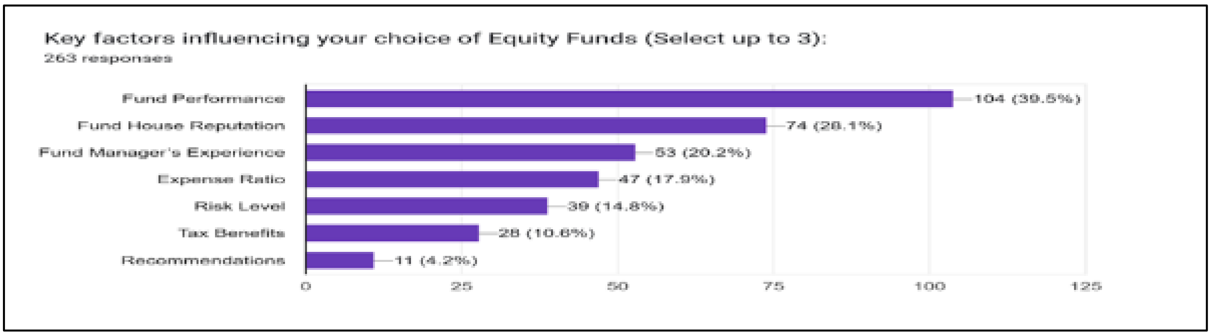

Figure 1 Key Factors Influencing Choice of Equity Funds

Interpretation: Investors prioritize fund performance (39.5%) when selecting equity funds, followed by fund house reputation (28.1%) and manager experience (20.2%), reflecting a focus on past returns and trusted brands. Expense ratio (17.9%) and risk level (14.8%) are secondary factors, while tax benefits (10.6%) and recommendations (4.2%) have minimal influence, indicating a preference for credibility and performance over cost or external advice.

Table 11 Portfolio Allocation to Mutual Funds (263 responses)

Allocation	Percentage
Less than 20%	52.1%
20–40%	31.2%
40–60%	12.2%
More than 60%	4.5%

Interpretation: A significant portion of respondents allocate less than 20% of their portfolio to mutual funds (52.1%), indicating cautious investment. 31.2% invest 20–40%, while 12.2% allocate 40–60%. Only 4.5% allocate more than 60%, showing that most investors maintain a diversified portfolio with limited exposure to mutual funds.

Table 12 Equity Fund Return Expectations (263 responses)

Expected Return	**Percentage**
Below 8%	39.9%
8–12%	31.9%
12–16%	23.6%
Above 16%	4.6%

Interpretation: The majority of investors expect returns below 8% (39.9%), reflecting a conservative outlook. 31.9% expect 8–12% returns, while 23.6% aim for 12–16% returns. Only a small 4.6% expect returns above 16%, indicating that high return expectations are relatively rare.

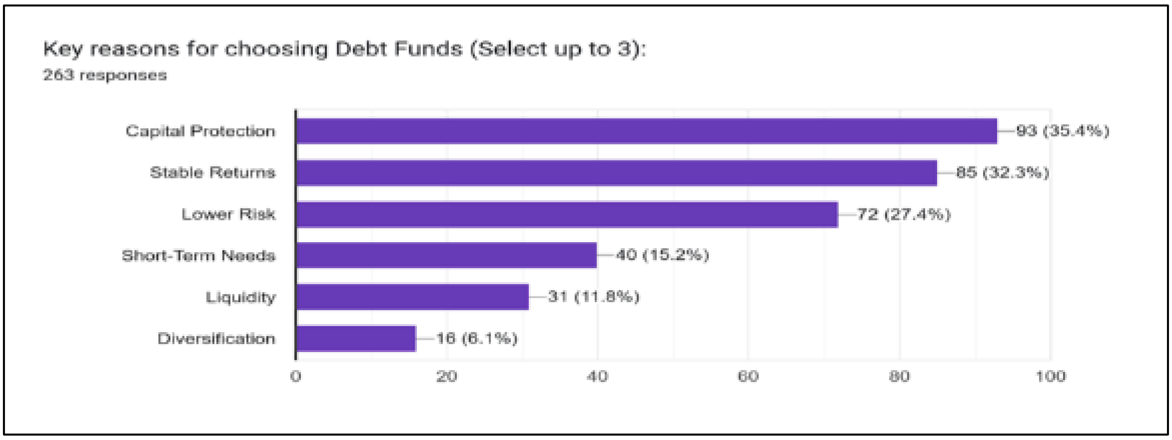

Figure 2 Key Reasons for Choosing Debt Funds

Interpretation: Investors primarily select debt funds for capital protection (35.4%) and stable returns (32.3%), emphasizing safety and predictability. Lower risk (27.4%) is also a significant factor, while short-term needs (15.2%), liquidity (11.8%), and diversification (6.1%) play secondary roles in the decision-making process.

Table 13 Debt Fund Return Expectations (263 responses)

Expected Return	Percentage
Below 5%	31.2%
5–7%	34.2%
7–9%	27.4%
Above 9%	7.2%

Interpretation: Most investors expect returns between 5–7% (34.2%) from debt funds, with 31.2% anticipating returns below 5%, indicating a conservative outlook. 27.4% expect 7–9% returns, while only 7.2% have higher expectations of above 9%, showing that most investors view debt funds as low-risk, stable investments.

Table 14 Perception of Best Risk-Adjusted Returns

Perception of Best Risk-Adjusted Returns	Percentage
Equity Funds	44.5%
Debt Funds	36.1%
Both are balanced	17.5%
Not sure	1.5%

Interpretation: A majority of respondents believe equity funds (44.5%) offer the best risk-adjusted returns, followed by debt funds (36.1%). 17.5% view both as balanced, while a small 1.5% are unsure, indicating a strong preference for equity funds in terms of potential returns relative to risk.

Table 15 Factors Considered When Choosing Between Equity and Debt Funds

Factor	Percentage
Potential Returns	17.1%
Safety of Capital	24.3%
Liquidity	33.1%
Tax Implications	16.0%
Investment Horizon	6.8%
Fund Manager's Reputation	2.7%
Total	100%

Interpretation: Liquidity (33.1%) is the most important factor for investors when choosing between equity and debt funds, followed by safety of capital (24.3%). Potential returns (17.1%) and tax implications (16%) are also significant considerations, while investment horizon (6.8%) and fund manager's reputation (2.7%) play lesser roles.

Table 16 Switch Between Equity & Debt Based on Market Conditions

Frequency of Switching	Percentage
Frequently	38.8%
Occasionally	53.2%
Never	8.0%
Total	100%

Interpretation: A majority of respondents occasionally switch between equity and debt funds (53.2%), while 38.8% frequently switch, indicating a dynamic approach to fund management. Only 8% never switch, suggesting that most investors are open to adjusting their portfolios based on changing market conditions.

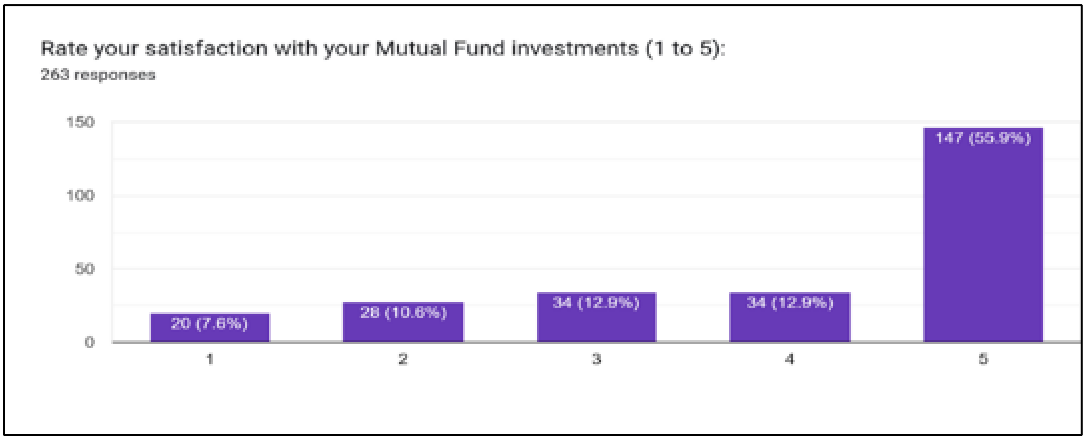

Figure 3 Rating Satisfaction with Mutual Funds

Interpretation: The vast majority of investors (55.9%) report high satisfaction (rating 5) with their mutual fund investments, while only 7.6% express dissatisfaction (rating 1), indicating strong overall approval. Moderate ratings (2-4) collectively account for 36.4% of responses, suggesting a minority have neutral or mildly positive experiences.

4.2 Hypothesis 1: Perception of Best Risk-Adjusted Returns

4.2.1 Observed Frequencies:

- Equity: 117
- Debt: 95
- Both Balanced: 46
- Not Sure: 5

Expected Frequency (assuming uniform distribution):

- Total responses = 263
- Expected per category = 263 ÷ 4 = 65.75

Table 17 Chi-Square Components – Perception of Best Risk-Adjusted Returns

Category	Observed	Expected	$(O-E)^2$ / E (Chi-square Component)
Equity	117	65.75	39.95
Debt	95	65.75	13.01
Both Balanced	46	65.75	5.93
Not Sure	5	65.75	56.13

Chi-square statistic = 39.95 + 13.01 + 5.93 + 56.13 = 115.02
p-value = $\sim 9.1 \times 10^{-25}$ (highly significant)

Interpretation: The chi-square test revealed a significant difference in investor perceptions regarding which mutual fund type offers the best risk-adjusted returns. The calculated chi-square value (115.02) far exceeds the critical value, with a very low p-value, indicating strong statistical significance. Most investors favoured equity funds over debt or hybrid options. This suggests that perceived return potential heavily influences investor preferences. Therefore, we reject the null hypothesis.

4.3 Hypothesis 2: Risk Appetite vs. Fund Preference

Table 18 Cross-Tabulation of Risk Appetite and Fund Preference (Observed Frequencies)

Risk Appetite → Fund Type ↓	Equity	Debt	Hybrid	Not Sure
Low (Observed)	15	40	25	4
Moderate	45	40	52	10
High	32	17	4	0

Table 19 Chi-square Component Table (Observed vs. Expected):

Risk Appetite	Equity	Debt	Hybrid	Not Sure
Low	5.48	4.46	0.05	0.00
Moderate	0.14	2.08	2.42	1.05
High	12.81	0.07	8.17	2.61

➡️ Chi-square statistic = 39.34
➡️ p-value = $\sim 6.14 \times 10^{-7}$

Interpretation: The chi-square test for independence showed a significant association between an investor's risk appetite and their preferred type of mutual fund. The calculated chi-square value of 39.34 and the very low p-value confirm this relationship is not due to chance. For example, low-risk investors favoured debt funds, while high-risk investors leaned toward equity funds. This aligns with general investment behaviour theories. Hence, we reject the null hypothesis.

4.4 Secondary Data

Table 20 5-YEAR RETURNS OF EQUITY FUNDS(ANNUALIZED)

Equity funds						
Scheme Name	**Crisil Rank**	**2020**	**2021**	**2022**	**2023**	**2024**
SBI Contra Fund - Direct Plan	4	31%	49%	14%	38%	20%
Motilal Oswal ELSS Tax Saver Fund- Direct Plan	5	10%	31%	3%	38%	34%
Motilal Oswal Flexi Cap Fund- Direct Plan	5	11%	14%	-2%	33%	48%
Aditya Birla Sun Life India GenNext Fund - Direct Plan	4	16%	29%	6%	26%	18%
Nippon India Vision Fund - Direct Plan	4	13%	31%	3%	34%	25%

Table 21 5-YEAR RETURNS OF DEBT FUNDS(ANNUALIZED)

DEBT FUNDS						
Scheme Name	Crisil Rank	2020	2021	2022	2023	2024
Aditya Birla Sun Life Corporate Bond Fund - Direct Plan	4	12%	4%	4%	7%	9%
UTI Credit Risk Fund - Direct Plan	4	-27%	22%	5%	7%	9%
ICICI Prudential Gilt Fund - Direct Plan	5	13%	4%	4%	9%	9%
SBI Magnum Gilt Fund - Direct Plan	4	12%	3%	5%	8%	10%
Motilal Oswal Liquid Fund - Direct Plan	5	3%	3%	5%	7%	7%

Table 22 5-Year Returns of Hybrid Funds(Annualized)

HYBRID FUNDS						
Scheme Name	Crisil Rank	2020	2021	2022	2023	2024
UTI Aggressive Hybrid Fund - Direct Plan	4	14%	30%	6%	26%	22%
Nippon India Arbitrage Fund - Direct Plan	4	5%	5%	5%	8%	8%
Aditya Birla Sun Life Arbitrage Fund- Direct Plan	5	5%	5%	5%	8%	8%
UTI Conservative Hybrid Fund - Direct Plan	4	11%	13%	4%	12%	12%
ICICI Prudential Multi-Asset Fund – Direct Plan	4	10%	34%	18%	25%	17%

Interpretation:

The analysis of mutual fund returns from 2020 to 2024 reveals clear distinctions among equity, debt, and hybrid categories. Equity funds delivered the strongest performance overall, with SBI Contra Fund leading the group with an impressive 30.4% average return, followed closely by Motilal Oswal's ELSS and Flexi Cap Funds. This consistent outperformance, with all selected equity schemes yielding over 18%, highlights their suitability for long-term investors aiming for substantial capital appreciation despite market volatility.

Debt funds, on the other hand, maintained their role as low-risk, stable-return investments. ICICI Prudential and SBI Gilt Funds led with returns of 7.8% and 7.6% respectively, offering predictable growth ideal for conservative investors. While returns were modest, they aligned with the primary objective of capital preservation.

Hybrid funds showed a wide range of outcomes, reflecting their blended structure. Some, like ICICI Prudential Multi-Asset Fund and UTI Aggressive Hybrid Fund, delivered equity-like returns exceeding 19%, appealing to investors seeking growth with controlled risk. Others, particularly arbitrage funds, mirrored the conservative nature of debt funds, providing returns between 5.8% and 6.2%.

In conclusion, equity funds offer the highest growth potential for risk-tolerant investors, debt funds ensure stability for the risk-averse, and hybrid funds serve those aiming to strike a balance. This reinforces the importance of aligning fund selection with individual financial goals, investment horizon, and risk appetite.

Table 23 Risk ratios of equity funds

Scheme Name	**Standard Deviation**	**Beta**	**Sharpe Ratio**	**Jenson's Alpha**	**Treynor's Ratio**
SBI Contra Fund - Direct Plan	12.06	0.84	1.15	8.33	0.17
Motilal Oswal ELSS Tax Saver Fund - Direct Plan	16.52	1.05	0.92	8.06	0.14
Motilal Oswal Flexi Cap Fund - Direct Plan	15.42	0.98	0.90	7.27	0.14
Nippon India Vision Fund - Direct Plan	13.87	0.96	0.79	2.38	0.11
Aditya Birla Sun Life India GenNext Fund - Direct Plan	11.69	0.82	0.68	-0.01	0.10

Table 24 Risk ratios of debt funds

Scheme Name	**Standard Deviation**	**Beta**	**Sharpe Ratio**	**Jenson's Alpha**	**Treynor's Ratio**
Motilal Oswal Ultra Short Term Fund - Direct Plan	0.38	0.60	-3.71	-1.24	-0.02
Aditya Birla Sun Life Corporate Bond Fund - Direct Plan	1.00	0.93	-0.22	0.53	0.00
UTI Credit Risk Fund - Direct Plan	0.90	0.67	-0.24	-0.14	0.00
ICICI Prudential Gilt Fund - Direct Plan	1.44	0.67	0.53	-0.64	0.01
SBI Magnum Gilt Fund - Direct Plan	2.24	3.38	0.36	3.96	0.00

Table 25 Risk ratios of hybrid funds

Scheme Name	Standard Deviation	Beta	Sharpe Ratio	Jenson's Alpha	Treynor's Ratio
UTI Aggressive Hybrid Fund - Direct Plan	9.57	1.04	0.87	4.15	0.08
Aditya Birla Sun Life Arbitrage Fund - Direct Plan	0.93	0.52	-0.14	0.08	0.00

Nippon India Arbitrage Fund - Direct Plan	0.91	0.52	-0.16	0.07	0.00
UTI Conservative Hybrid Fund - Direct Plan	3.60	1.14	0.58	1.45	0.02
ICICI Prudential Multi-Asset Fund - Direct Plan	7.39	0.50	1.44	8.27	0.21

4.5 Analysis & Interpretation

Among equity mutual funds, the SBI Contra Fund leads with the highest Sharpe Ratio (1.15), Alpha (8.33), and a favorable Treynor Ratio (0.17), signaling excellent risk-adjusted and market-beating performance. Its Beta of 0.84 indicates reduced market sensitivity, making it a strong pick for investors seeking superior returns with controlled risk. Motilal Oswal's ELSS Tax Saver and Flexi Cap Funds also deliver high Alphas (8.06 and 7.27) and Sharpe Ratios (0.92 and 0.90), though their higher standard deviations suggest greater volatility—suitable for long-term investors comfortable with fluctuations. Nippon India Vision Fund shows moderate risk-adjusted returns (Sharpe Ratio: 0.79, Alpha: 2.38), while Aditya Birla India GenNext Fund lags behind, posting the lowest Sharpe Ratio (0.68) and a slightly negative Alpha (-0.01), implying underperformance relative to risk taken.

In the debt category, ICICI Prudential Gilt Fund stands out with the best Sharpe Ratio (0.53), lowest Beta (0.67), and acceptable risk levels (Std. Dev.: 1.44), offering relatively stable and favorable returns. SBI Magnum Gilt Fund, with the highest Alpha (3.96), also performs reasonably well, despite higher volatility (Std. Dev.: 2.24). Conversely, Motilal Oswal Ultra Short Term Fund shows poor results with a sharply negative Sharpe Ratio (-3.71) and Alpha (-1.24), suggesting inefficient risk management. Aditya Birla Corporate Bond and UTI Credit Risk Funds also underperform with negative Sharpe Ratios and minimal Alpha, failing to justify the risk undertaken.

Among hybrid funds, ICICI Prudential Multi-Asset Fund is the strongest performer, boasting the highest Sharpe Ratio (1.44), highest Alpha (8.27), and the lowest Beta (0.50), making it highly attractive for low-risk investors seeking high returns. UTI Aggressive Hybrid Fund follows with solid metrics (Sharpe Ratio: 0.87, Alpha: 4.15), though a Beta slightly above 1 suggests higher market sensitivity. UTI Conservative Hybrid Fund shows decent performance (Sharpe Ratio: 0.58, Alpha: 1.45), while Aditya Birla and Nippon India Arbitrage Funds underperform with negative Sharpe Ratios and low Alphas, indicating weak risk-adjusted returns.

4.6 Comparative Interpretation

Equity mutual funds deliver the highest risk-adjusted and absolute returns, with an average Sharpe Ratio of 0.89 and Alpha of 5.21, despite higher volatility (Std. Dev.: 13.91) and market sensitivity (Beta: 0.93). These characteristics make them suitable for investors focused on long-term capital growth and capable of handling market fluctuations.

Hybrid funds offer a balanced profile, averaging a Sharpe Ratio of 0.33, Alpha of 1.45, and moderate volatility (Std. Dev.: 5.87). Their lower Beta (0.65) reflects reduced market exposure, positioning them well for moderate-risk investors seeking diversification and steady returns.

Debt funds are the most conservative, with the lowest volatility (Std. Dev.: 1.19) and Beta (0.65), indicating high stability. However, they show weak performance metrics—average Sharpe Ratio of -0.66, Alpha of 0.49, and slightly negative Treynor Ratio (-0.002)—suggesting poor return for the risk undertaken. These are best suited for highly risk-averse investors prioritizing capital preservation.

In conclusion, equity funds are ideal for high-growth, long-term strategies, hybrid funds for moderate-risk balanced approaches, and debt funds for safety-first investors—though with limited upside in the current environment.

5 Findings

- A significant majority of respondents (89.35%) are male, highlighting a gender gap in mutual fund investments.
- Most investors are well-educated, with 41.44% postgraduates and 38.7% undergraduates, suggesting education influences investment awareness and participation.
- Nearly 50% of respondents are salaried, while 32.31% are self-employed, indicating these groups are primary mutual fund participants.

- Around 62.35% of respondents earn below ₹7 lakhs annually, and 68.44% have less than 1 year of investment experience, reflecting a relatively new and low-income investor base.
- 65.4% of respondents currently invest in mutual funds, showing encouraging participation rates, though 27.4% remain unengaged.
- Among fund types, debt funds (36.9%) have a slight edge over equity (35%), indicating a balanced interest in safety and returns.
- Capital preservation (31.6%) and regular income (21.7%) are the leading investment motives, showing investors are more conservative and income-focused.
- 55.9% of investors have a moderate risk profile, aligning with the preference for balanced and less volatile fund options.
- Over half (52.1%) allocate less than 20% of their portfolio to mutual funds, indicating underutilization despite awareness.
- Most equity fund investors expect returns below 12%, and debt fund investors expect returns below 7%, reflecting reasonable expectations.
- Hypothesis 1 revealed equity is perceived as the best for risk-adjusted returns, with strong statistical significance ($\chi^2 = 115.02$, $p < 0.00001$).
- Hypothesis 2 confirmed a significant association between risk appetite and fund preference ($\chi^2 = 39.34$, $p < 0.000001$). Low-risk investors prefer debt; high-risk investors choose equity.
- 92% of investors switch between fund types at least occasionally, showing active portfolio management behavior.
- 55.9% of investors rated their satisfaction level as 5 (highest), indicating strong trust and positive experiences with mutual funds.

5.1 Suggestions

- Focus on educating new investors about mutual fund basics and risk-return alignment.
- Promote balanced fund options to low and moderate risk investors.
- Highlight fund performance and credibility in marketing efforts.
- Encourage long-term investment habits through targeted awareness.
- Offer simple tools for portfolio planning and fund comparison.

6 Conclusion

This study provides valuable insights into the preferences, behaviours, and perceptions of mutual fund investors in India. The findings highlight a growing but cautious investor base, with a strong inclination toward safety and moderate returns. The dominance of debt funds, low allocation levels, and limited experience suggest room for further market penetration and education. The statistically significant relationship between risk appetite and fund selection confirms that investors tend to align their choices with their risk profiles, reinforcing traditional investment theories. Additionally, the preference for equity funds for risk-adjusted returns indicates a positive long-term outlook among a section of investors. To bridge existing gaps and enhance mutual fund adoption, financial institutions and policymakers should focus on targeted education, gender inclusivity, and digital tools that enable informed, confident investment decisions. With sustained effort, the mutual fund landscape in India can continue evolving into a more inclusive and strategically diversified market.

Compliance with ethical standards

Disclosure of conflict of interest

The author(s) declare(s) that there is no conflict of interest regarding the publication of this article.

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