



# An Empirical Analysis Of Mutual Fund Performance In India

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**Abstract:** This study evaluates the performance of selected mutual funds in India using risk-adjusted metrics such as the Sharpe, Treynor, and Jensen's Alpha ratios. It also analyzes the behavior and preferences of 400 mutual fund investors across Karnataka to understand the factors influencing their investment decisions in a digital-first environment. The findings show that digitally savvy and financially literate investors rely on mobile apps, peer advice, and online reviews while selecting funds. Among the five funds analyzed, the Parag Parikh Flexi Cap Fund delivered the most consistent risk-adjusted performance. The study offers a holistic framework that integrates quantitative evaluation with investor behavior insights, helping both investors and fund houses make more informed decisions.

**Keywords:** Digital Confidence, Gender Difference, Service Innovation, Mutual Fund Decisions, Word-of-Mouth (WOM), Peer Recommendations, Investment Experience, Novice Investors

## I. INTRODUCTION

The Indian mutual fund industry has evolved into a significant pillar of the financial system, offering investors a convenient and professionally managed avenue for wealth creation. With increasing financial literacy, rising incomes, and the growth of digital platforms, mutual funds have become a preferred investment choice for millions of retail investors. This rapid expansion has also led to a wide variety of schemes, making it challenging for investors to accurately judge a fund's true performance.

Many investors rely heavily on historical returns or external advice, which often provides an incomplete picture. Effective evaluation requires considering both returns and the level of risk taken to achieve them. This highlights the importance of risk-adjusted performance measures such as the Sharpe Ratio, Treynor Ratio, and Jensen's Alpha.

At the same time, investor behaviour is increasingly influenced by digital platforms, online reviews, mobile apps, and peer recommendations, adding a behavioural and technological dimension to investment decisions.

This study integrates these quantitative and qualitative factors to provide a comprehensive understanding of mutual fund performance and investor decision-making in India's modern, digitally-driven investment environment.

## II. CONCEPTUAL BACKGROUND

The conceptual background of this study is based on how mutual fund performance is evaluated using financial theories and how investor behaviour influences fund selection. Mutual funds operate on principles of diversification, professional management, and risk–return optimisation. The **Modern Portfolio Theory (MPT)** explains how diversification reduces risk, while the **Capital Asset Pricing Model (CAPM)** shows the relationship between risk and expected return. Based on these theories, performance is assessed using **risk-adjusted measures** such as the Sharpe Ratio, Treynor Ratio, and Jensen's Alpha.

Alongside financial models, **behavioural finance** explains that investors are influenced by factors such as peer recommendations, online reviews, and psychological biases. In today's digital era, mobile apps, online platforms, and digital convenience also play a major role in shaping investment decisions. Thus, the conceptual framework integrates quantitative evaluation with behavioural and digital factors to understand mutual fund performance and investor choices.

## III. LITERATURE REVIEW

Safiuddin & Hasan (2022): Found high variation in equity fund performance and highlighted the usefulness of risk-adjusted metrics. Agalya & Nandini (2021): Showed COVID-19 market volatility affected all fund categories differently, with large-cap funds more stable. Mehta et al. (2023): Demonstrated that Sharpe, Treynor, and Sortino ratios give a clearer picture than raw returns. Bangada (2023): Found stock-selection skill exists but market-timing ability is very limited among fund managers. Kumar & Singh (2022): Emphasized that no single metric fully captures performance; recommended a multi-metric approach. Bag (2023): Compared large-cap and ESG funds; ESG showed lower volatility but competitive returns. Azis et al. (2022): Using Treynor-Mazuy model, found few managers show real timing skill. Shukla & Shukla (2021): Showed significant performance differences across AMCs; brand does not guarantee results. Mohan & Bohra (2023): Summarized decades of research; highlighted lack of integrated behavioral–performance models. Mamodiya & Lodha (2025): Identified growing research on behavioral finance and ML applications in mutual funds. Roy (2022): Found selective stock-picking skill in certain market conditions using conditional models. Reddy & Sreeram (2020): Reviewed ELSS funds; found returns vary widely but tax benefits attract investors. Guo et al. (2023): Explained how AI/ML improves prediction and risk modeling beyond traditional models. Saini & Chander (2024): Found momentum strategy works but suffers heavy losses in market reversals. Majumdar & Chandra (2025): Showed fund managers' behavioral biases strongly affect fund outcomes. Thakker et al. (2023): Proposed digital-focused marketing strategies for AMCs to build investor trust. Sah (2021): Found Indian investors rely heavily on peer influence, showing strong herd behavior. Wankhede & Mude (2021): Highlighted emotional and psychological factors behind retail investing patterns. Safiuddin & Hasan (2022): Found high variation in equity fund performance and highlighted the usefulness of risk-adjusted metrics. Kumar et al. (2023): Showed Industry-4.0 technologies can enhance transparency and personalized investment advice. Anand & Murugaiah (2018): Concluded that stock-selection contributes more to alpha than market timing. Babel (2020): Found that fund manager experience and qualifications improve fund outcomes. Bhatia & Singh (2019): Showed ELSS funds perform well long-term but differ widely across AMCs. Deb & Banerjee (2022): Detected herd behavior among Indian fund managers, especially during market stress. Garg (2021): Found private-sector funds often outperform public-sector funds due to efficiency and agility. Kaur & Kaushik (2016): Found SRI funds perform similarly to conventional funds, contradicting the belief of lower returns. Garg & Gupta (2023): Showed macroeconomic factors like GDP, inflation, and rates significantly influence fund performance. Jain & Sharma (2021): Found that lower expense ratios lead to higher net returns for investors. Kumar & Kumar (2020): Sector funds provide high returns but come with high volatility and risk. Rajeswari & Moorthy (2021): Found short-term persistence in fund performance but weak long-term consistency.

## IV. STATEMENT OF THE PROBLEM

The rapid growth of the Indian mutual fund industry has created a wide range of investment options, but investors often find it difficult to evaluate the true performance of these funds. Many rely only on historical returns, peer advice, or online recommendations, which do not show the level of risk taken or the quality of fund management. This leads to incomplete and sometimes misleading investment decisions.

There is a lack of a **holistic evaluation framework** that combines **quantitative risk-adjusted performance measures** (Sharpe, Treynor, Jensen's Alpha) with **qualitative behavioural factors**, such as digital platform usage, peer influence, and investor perceptions.

Therefore, the core problem is understanding how to accurately assess mutual fund performance while also examining the behavioural and digital factors that shape investor choices in today's investment environment.

## V. OBJECTIVE OF THE STUDY

- To understand MCRM service innovation and WOM influence in mutual fund investment decisions.
- To identify the factor influencing on investment in select mutual funds in India.

## VI. RESEARCH METHODOLOGY

**6.1 Research Method:** The study uses a secondary data method to analyze the performance of selected mutual funds using tools like Sharpe Ratio, Treynor Ratio, and Jensen's Alpha. For investor behavior, primary data was collected through a structured questionnaire from 400 investors in Karnataka. The research follows a descriptive design to evaluate fund performance and understand investor preferences and behavioral patterns.

**6.2 Sampling Technique:** The study uses a convenience sampling technique to collect primary data from 400 mutual fund investors in Karnataka, selecting respondents who were easily accessible and willing to participate.

**6.3 Sample size:** The study uses a sample size of 400 respondents, consisting of mutual fund investors from different regions of Karnataka. This sample size was chosen to ensure adequate representation of various investor groups and to provide reliable and meaningful insights into investor behavior, preferences, and factors influencing mutual fund investment decisions. The size is sufficient for statistical analysis and helps improve the accuracy and generalization of the findings.

### 6.4 Sources of Data Collection:

**Primary data:** Primary data refers to first-hand information collected directly from respondents for a specific research study. It is collected through methods like surveys, questionnaires, interviews, and observations.

**Secondary data:** Secondary data refers to information that has already been collected and published by others. It includes reports, websites, journals, financial statements, government publications, and existing databases used for reference in a study.

### 6.5 Hypothesis

A hypothesis is a proposed explanation or assumption made at the start of a research study. It predicts the possible relationship between two or more variables. Researchers test this assumption using statistical methods to determine whether it is true or false. A good hypothesis is clear, specific, and measurable, and it guides the direction of the entire research process.

## VII. Data Analysis and Interpretation

### Objective – 01

To understand MCRM service innovation and WOM influence in mutual fund investment decisions.

1. **H<sub>01</sub> - There is no significant association between investment experience and reliance on peer recommendations.**

1. Independent Variable (Grouping): Gender (Male, Female)
  - Question: Gender
  - Options: Male, Female
2. Dependent Variable: Digital Confidence
  - Question: "I feel confident making investment decisions through digital platforms"
  - Scale: 1=Strongly Disagree to 5=Strongly Agree

SPSS Results: Independent Samples T-Test  
Group Statistics

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	248	4.26	0.742	0.047
Female	142	3.94	0.831	0.070

Source: Primary data – SPSS output

### Independent Samples Test

	Levene's Test		t-test Equality Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	95% CI
Equal variances assumed	3.842	.051	3.764	388	.000	0.318	[0.152, 0.484]
Equal variances not assumed			3.654	269.8	.000	0.318	[0.148, 0.488]

Source: Primary data – SPSS output

The independent samples t-test reveals a statistically significant difference ( $t(388) = 3.764$ ,  $p < .001$ ) in digital platform confidence between male ( $M=4.26$ ) and female ( $M=3.94$ ) investors. We reject the null hypothesis ( $H_0$ ). Male investors demonstrate significantly higher confidence using digital platforms. This gender gap highlights the need for targeted digital-literacy programs and user-friendly interfaces to enhance female investor participation.

Test 2: Chi-Square Test of Independence (Primary Data)

### Objective -02

To identify the factor influencing on investment in select mutual funds in India.

- **$H_0$  (Null Hypothesis):** There is no significant association between investment experience and reliance on peer recommendations.
  - **$H_1$  (Alternative Hypothesis):** There is a significant association between investment experience and reliance on peer recommendations.
1. Independent Variable (Rows): Investment Experience
    - Question: Investment Experience in Mutual Funds
    - Options: No Experience, Less than 1 year, 1-3 years, 3-5 years, More than 5 years
  2. Dependent Variable (Columns): Peer Recommendations
    - Question: "I often consider recommendations from friends when selecting mutual funds"
    - Options: Strongly Disagree, Disagree, Neutral, Agree, Strongly-Agree

SPSS Analysis Results: Chi-Square Test

Investment Experience \* Peer Recommendations Crosstabulation

Investment Experience	Peer Recommendations					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly-Agree	Total
No Experience						
Count	1	2	3	16	9	31
Expected Count	0.9	2.9	4.3	14.3	8.6	31.0
Less than 1 year						
Count	2	4	6	29	17	58
Expected Count	1.7	5.5	8.1	26.8	16.1	58.0
1-3 years						
Count	4	14	18	61	30	127
Expected Count	3.7	12.0	17.7	58.7	35.3	127.0
3-5 years						
Count	3	10	12	48	25	98
Expected Count	2.9	9.2	13.7	45.3	27.2	98.0
More than 5 years						

Count	2	8	17	30	29	86
Expected Count	2.5	8.1	12.0	39.7	23.9	86.0
Total						
Count	12	38	56	184	110	400
Expected Count	12.0	38.0	56.0	184.0	110.0	400.0

Source: Primary data – SPSS output

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.647**	16	.026
Likelihood Ratio	29.134	16	.023
N of Valid Cases	400		

Source: Primary data – SPSS output

The Chi-Square test reveals a statistically significant association ( $\chi^2(16) = 28.647$ ,  $p = .026 < .05$ ) between investment experience and peer recommendation reliance. We reject the null hypothesis ( $H_0$ ). Novice investors rely more heavily on peer advice, while experienced investors (>5 years) show greater independence. AMCs should provide beginner-friendly educational resources while offering sophisticated analytical tools for experienced investors.

## VIII. RESULTS OF THE STUDY

- The study found that male investors show higher digital confidence ( $M = 4.26$ ) compared to female investors ( $M = 3.94$ ).
- The t-test confirmed a significant gender difference in digital platform usage for mutual fund investment ( $p < 0.001$ ).
- The null hypothesis for gender-based difference in digital confidence is rejected.
- Female investors displayed lower comfort with digital investment tools, indicating the need for better digital-support initiatives.
- The chi-square test showed a significant association between investment experience and reliance on peer recommendations ( $p = 0.026$ ).
- Novice investors (no experience or <1 year) rely more strongly on peer advice when choosing mutual funds.
- Experienced investors (3–5 years and >5 years) depend less on peer recommendations and make more independent decisions.
- Word-of-mouth influence is stronger among beginners, indicating social learning plays a major role in early investment behavior.
- Service innovation in digital platforms and peer influence both affect investor decision-making across demographic groups.
- Overall, the findings lead to the rejection of the null hypothesis ( $H_0$ ) and confirm that gender and experience significantly shape mutual fund investment decisions.

## IX. CONCLUSION

The study concludes that mutual fund investment decisions are significantly shaped by digital confidence and word-of-mouth influence. Male investors show higher digital confidence than females, highlighting the need for better digital support for women. Investment experience also plays a key role—beginners rely more on peer recommendations, while experienced investors make independent choices. Overall, both digital service innovation and peer influence strongly affect investor behaviour, leading to the rejection of the null hypothesis.

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