Analysis of Risk and Return in Mutual Funds vs. Fixed Deposits

Nikita Agarwal

Master of Business Administration
Galgotias University, Greater Noida, Uttar Pradesh, India
Email: nikitaagarwal192837@gmail.com

ABSTRACT

This research summarizes a 10-year comparative analysis (2014–2024) of mutual funds and fixed deposits (FDs) in India. Using secondary data from AMFI, RBI, and leading banks, we assessed the performance of five mutual funds and benchmarked them against FD interest rates. Metrics such as CAGR, Sharpe Ratio, Beta, and Standard Deviation were used to evaluate return and risk. Results show that while FDs provide safety and fixed returns, mutual funds—especially equity-oriented ones—have delivered superior long-term returns with moderate to high volatility. The study concludes that investment decisions should align with individual financial goals and risk appetite.

Keywords: risk and return, mutual fund, fixed deposits

I. INTRODUCTION

Fixed deposits have long been preferred by Indian investors due to their assured returns and low-risk profile. However, growing awareness and access to market-linked instruments have led many to explore mutual funds. The mutual fund industry's AUM expanded from ₹10.8 trillion in 2014 to ₹52 trillion in 2024 (AMFI data).

The theoretical foundation of this study includes:

- Modern Portfolio Theory (Markowitz, 1952) – advocates for diversification.
- Capital Asset Pricing Model (Sharpe, 1964) – measures return relative to market risk.
- Efficient Market Hypothesis (Fama, 1970) – assumes market prices reflect all available information.

Empirical studies (Kaur & Dhillon, 2018) confirm that mutual funds outperform FDs on a risk-adjusted basis. Behavioral finance findings explain that many investors still prefer FDs due to loss aversion, risk perception, and low financial literacy.

II. RESEARCH METHODOLOGY

A descriptive, quantitative, and comparative research design was used. The study focuses on a 10-year period (2014–2024) and includes five mutual funds and five banks selected through purposive sampling.

Mutual Funds:

- SBI Blue-chip Fund
- HDFC Flexi Cap Fund
- ICICI Balanced Advantage Fund
- Axis Short Term Fund
- Nippon Corporate Bond Fund

Banks:

- SBI, HDFC Bank, ICICI Bank, Axis Bank, PNB

Key Formulas Used:

- CAGR: $(EndingValue/BeginningValue)^{(1/n)} - 1$ (Ending Value / Beginning Value)$^{(1/n)}$ – $1(EndingValue/BeginningValue)^{(1/n)} - 1$
- Sharpe Ratio: $(PortfolioReturn - Risk - FreeRate)/StandardDeviation$ (Portfolio Return – Risk-Free Rate) / Standard

Deviation(PortfolioReturn–Risk−FreeRate)/StandardDeviation

- Beta: Covariance(Fund,Market)/Variance(Market)Covariance (Fund, Market) / Variance (Market)Covariance(Fund,Market)/Variance(Market)

Secondary data was obtained from AMFI, RBI, Value Research, and official bank websites. Microsoft Excel was used for data processing and graphical representation..

III. FINDINGS

Key Findings:

- HDFC Flexi Cap Fund yielded a 10-year CAGR of 8.65%, while SBI Blue-chip Fund gave 7.77%.
- Average FD returns across five banks stood at 6.87%.
- Sharpe Ratio analysis revealed that only top-performing equity funds offered risk-adjusted returns higher than the risk-free rate.

Case Study: FD vs Mutual Fund Investor.

Detail	Investor A (FD)	Investor B (Mutual Fund)
Initial Investment	₹5,00,000	₹5,00,000
Investment Period	10 years	10 years
CAGR	6.75%	8.65%
Final Value (2024)	₹9,59,152	₹11,61,632
Additional Wealth Earned	–	₹2,02,480 more

Insight: Despite market risks, long-term investment in mutual funds outperformed traditional FDs in wealth accumulation.

IV. LIMITATIONS

- The study is based exclusively on secondary data and excludes primary investor insights.
- Taxation, inflation-adjusted returns, and liquidity constraints were not considered.
- A limited sample of five mutual funds and five banks restricts generalizability.
- Behavioral factors are discussed theoretically but not measured quantitatively.
- The fixed 10-year period (2014–2024) may not capture performance variations across other time horizons.
- Only standard risk-return metrics (CAGR, Sharpe Ratio, Beta) were used; advanced measures like Alpha and Sortino Ratio were excluded.

V. CONCLUSION

The study concludes that mutual funds, particularly equity-oriented schemes, have provided superior long-term risk-adjusted returns compared to fixed deposits. However, fixed deposits continue to offer a safe, predictable option for conservative investors. A hybrid investment strategy that blends both instruments can help balance stability and growth.

Recommendations:

- High-risk tolerance: Prioritize equity mutual funds.
- Moderate-risk tolerance: Mix of balanced or debt funds with short-term FDs.
- Low-risk tolerance: Primarily invest in FDs or low-duration debt funds.

Future studies may explore a broader range of financial products (e.g., NPS, PPF), include inflation-adjusted analysis, and integrate primary survey data for behavioral insights..

VI. REFRENCES

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