



Evaluating the Impact of Exchange Traded Funds (ETFs) on Retail Investors' Mutual Fund Portfolio Performance

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Abstract – Savings and investments occupy a central role in the financial culture of Indian households, where traditionally gold, fixed deposits, and life insurance were the preferred instruments. However, the liberalization of the economy, financial market development, and regulatory initiatives by SEBI have significantly changed the investment landscape. Mutual funds, with their diversification and professional management benefits, became the dominant choice for retail investors. In recent years, Exchange Traded Funds (ETFs) have gained traction, offering investors a hybrid advantage: they combine the low cost and transparency of index funds with the liquidity of stocks. The increasing availability of ETFs has sparked interest in their role within retail investors' portfolios, especially in relation to traditional mutual funds. Do ETFs complement mutual funds by enhancing diversification and reducing costs, or do they substitute them by diverting inflows? This research addresses this question by studying the Evaluating the Impact of Exchange Traded Funds (ETFs) on Retail Investors' Mutual Fund Portfolio Performance". The study employs both primary and secondary data. A structured questionnaire was distributed among retail investors to capture demographic information, awareness levels, preferences, and perceptions of ETFs. Secondary data on mutual fund and ETF performance was also analysed using established performance measures such as Sharpe Ratio, Treynor Ratio, and Jensen's Alpha. Findings indicate that while awareness of ETFs is still modest among Indian retail investors, those who include ETFs in their portfolios experience improved diversification and reduced overall costs. ETFs generally deliver benchmark-matching returns at lower expense ratios, enhancing long-term efficiency. However, mutual funds remain central to retail investors' strategies due to SIPs, active management, and investor trust. Thus, ETFs are not substitutes but rather complements to mutual funds. The study contributes to literature by empirically demonstrating how ETFs influence portfolio efficiency in the Indian retail context. It also provides practical recommendations for investors to use ETFs strategically, for fund managers to integrate ETFs into mutual fund structures, and for policymakers to expand financial literacy initiatives to encourage broader ETF adoption.

Keywords – Exchange Traded Funds (ETFs), Mutual Funds, Retail Investors, Portfolio Performance, Investment Preferences.

I. INTRODUCTION

Background

In India, saving and investing have historically been regarded as essential responsibilities rather than discretionary activities. Families have long relied on financial instruments such as gold, bank deposits, and life insurance to secure their financial future and safeguard dependents. This conservative approach, while safe, often resulted in limited wealth creation. Over the last three decades, however, India has witnessed a financial transformation. Liberalization in the early 1990s, the entry of private and foreign financial institutions, and reforms led by the Securities and Exchange Board of India (SEBI) brought modern investment avenues to the forefront. Mutual funds emerged during this period as an accessible vehicle for retail investors, pooling money to provide diversification, professional management, and convenience. The concept of systematic investment plans (SIPs) further increased retail participation, instilling financial discipline and encouraging long-term wealth accumulation. The mutual fund industry in India grew significantly, with assets under management (AUM) surpassing ₹46 trillion in 2023, reflecting its popularity across investor segments.

While mutual funds became mainstream, the Indian capital market also witnessed the introduction of Exchange Traded Funds (ETFs) in 2001 with the launch of Nifty BeES. Globally, ETFs had already transformed investing by offering low-cost, index-tracking, transparent instruments that combined the diversification benefits of mutual funds with the trading flexibility of stocks. Initially, ETFs in India were limited to institutional investors, but gradual reforms and government-backed schemes such as Bharat 22 ETF and CPSE ETF spurred retail interest. Despite this, retail adoption has remained modest compared to mutual funds due to limited awareness and accessibility.

ETFs and Retail Investor Portfolios

ETFs are designed to passively track benchmark indices such as Nifty 50 or Sensex and are traded on exchanges like shares. Their biggest advantage lies in low expense ratios, high transparency, and liquidity. Unlike actively managed mutual funds, which aim to outperform benchmarks, ETFs seek to replicate them. For retail investors, this provides cost efficiency, but it also raises an important question: How do ETFs affect the performance of retail mutual fund portfolios? Mutual funds, particularly through SIPs, remain a trusted instrument due to their active management, strong brand recognition, and structured approach. Retail investors rely on them for



retirement planning, children's education, and wealth accumulation. ETFs, on the other hand, promise lower costs and efficient diversification but require investor awareness and the ability to trade directly on exchanges. Therefore, understanding whether ETFs complement or substitute mutual funds becomes essential in the Indian context.

Problem Context

The rapid growth of the mutual fund industry in India has been accompanied by increasing availability of ETFs. However, retail investors often lack clarity about how ETFs influence portfolio outcomes. Are ETFs capable of improving risk-adjusted returns? Do they reduce costs without compromising diversification? Or do they cannibalize mutual fund inflows by drawing investors away from actively managed funds? These questions form the crux of this research. Globally, studies present mixed evidence. In developed markets like the U.S., ETFs are seen both as substitutes (drawing assets from mutual funds) and as complements (encouraging broader participation). In India, where retail investors are still building financial literacy, ETFs may have a distinct role. Understanding their impact on retail portfolios is therefore crucial for investors, fund managers, and policymakers alike.

Objectives of the Study

- To analyse the role of ETFs in retail investors' mutual fund portfolios.
- To evaluate diversification, efficiency, and risk-return trade-offs arising from ETF holdings.
- To determine whether ETFs act as substitutes or complements to mutual funds.
- To provide recommendations for investors, fund managers, and policymakers on ETF integration.

Significance of the Study

This study contributes in three ways:

- For Retail Investors: It provides clarity on how ETFs can be strategically used to enhance portfolio performance without replacing mutual funds.
- For Fund Managers: It highlights the potential for designing hybrid products that integrate ETFs within mutual fund structures to reduce costs and improve efficiency.
- For Policymakers and Regulators: It offers evidence-based insights that can guide policy reforms, promote financial literacy, and encourage wider adoption of ETFs.
- In essence, the study explores the evolving role of ETFs in Indian retail portfolios, situating them within the broader context of financial culture, regulatory reforms, and market development.

II. LITERATURE REVIEW

Mutual Funds: Evolution and Performance

Mutual funds are one of the most researched investment vehicles globally. Markowitz's (1952) Modern Portfolio Theory (MPT) laid the foundation for diversification, arguing that risk-adjusted returns can be optimized by holding a well-diversified portfolio. Building on this, Sharpe (1966) introduced the Sharpe Ratio to measure risk-adjusted performance, while Treynor (1965) and Jensen (1968) proposed additional models for evaluating fund efficiency. These measures remain central in analysing mutual fund performance today.

In the Indian context, Gupta (2017) examined equity-oriented mutual funds and found that while they provided significant long-term wealth creation opportunities, many actively managed schemes underperformed benchmarks after accounting for costs. Pushpalatha and Shankar (2024) conducted a sectoral analysis of banking mutual funds and observed that returns fluctuated significantly with market volatility, and high expense ratios often eroded investor gains. These findings suggest that while mutual funds remain popular, their efficiency is debated.

Exchange Traded Funds (ETFs): Global Perspective

ETFs emerged in the early 1990s in the U.S. and quickly gained traction as low-cost, transparent instruments combining features of mutual funds and stocks. Elton et al. (2002) analysed U.S.-based ETFs and found that their tracking errors were minimal, making them attractive substitutes for index mutual funds. Gastineau (2004) described ETFs as "the most important financial innovation of the last decade," noting their appeal to institutional investors due to liquidity and transparency. More recent studies, such as Ben-David et al. (2018), highlighted that ETFs influence overall market stability by increasing intraday volatility. However, other scholars argue that ETFs encourage broader participation in capital markets by offering retail investors affordable diversification (Madhavan, 2016). Thus, while ETFs are generally seen as efficient products, their broader systemic impact continues to be debated.

ETFs in India

The Indian ETF market began with the launch of Nifty BeES in 2001. Initially, retail participation was limited due to lack of awareness, low trading volumes, and limited availability of thematic ETFs. However, initiatives such as the Bharat 22 ETF and CPSE ETF significantly boosted ETF adoption, largely through government disinvestment programs. Kumar and Singh (2020) evaluated Indian ETFs and concluded that they offered superior cost efficiency compared to actively managed funds. However, they also highlighted limited liquidity and retail participation as major challenges. According to SEBI's Handbook of Statistics (2022), ETF AUM has grown substantially, but mutual funds still dominate retail portfolios.



ETFs and Mutual Funds: Substitutes or Complements?

The academic debate on whether ETFs are substitutes or complements to mutual funds is central to this study. Cremers et al. (2016) found evidence that ETFs divert flows from actively managed funds, suggesting substitution effects. Conversely, Agapova (2011) argued that ETFs and mutual funds are complements, as ETFs cater to cost-sensitive investors while mutual funds appeal to those seeking active management. In India, preliminary evidence suggests complementarity. Retail investors often use ETFs for low-cost diversification while continuing to rely on mutual funds for SIPs and professional management. Jain and Kalra (2021) observed that ETF adoption among Indian millennials is increasing but not at the cost of mutual fund inflows.

Performance Measures and Risk-Return Framework

Performance evaluation frameworks such as Sharpe Ratio, Treynor Ratio, and Jensen's Alpha are frequently used to assess ETFs and mutual funds. Elton et al. (2002) confirmed that ETFs deliver benchmark-matching returns with lower expense ratios, while Cremers et al. (2016) noted that actively managed funds only occasionally outperform due to managerial skill. In India, Sehgal and Gupta (2018) analysed index mutual funds and ETFs and concluded that ETFs had lower tracking errors and costs, making them efficient instruments for retail investors. However, they emphasized that awareness remains a barrier to wider adoption.

Behavioural Finance and Retail Investor Decisions

Behavioural finance adds another dimension to this discussion. Retail investors often make decisions based on heuristics, biases, and social influences. Barberis and Thaler (2003) highlighted the role of overconfidence and herd behaviour in investment choices. In the Indian context, Rajeswari and Moorthy (2019) found that peer influence and lack of financial literacy strongly shape mutual fund adoption. These insights are relevant to ETFs, which remain less understood by retail investors. While they are objectively efficient, behavioural barriers limit adoption. This underscores the importance of financial education and awareness campaigns.

Research Gap

While extensive research exists on mutual funds and ETFs individually, fewer studies have explored their interaction in retail investor portfolios, especially in emerging markets like India. Global studies provide mixed evidence on whether ETFs substitute or complement mutual funds. In India, where SIP-driven mutual funds dominate, the integrated role of ETFs remains underexplored. This study seeks to fill this gap by empirically examining the impact of ETFs on retail mutual fund portfolios, using both survey data and performance analysis.

III. RESEARCH METHODOLOGY

Overview of the Study

The present study investigates the impact of Exchange Traded Funds (ETFs) on the performance of retail investors' mutual fund portfolios. It aims to assess whether ETFs complement or substitute mutual funds, and how they influence portfolio diversification, risk-return profiles, and overall efficiency. To achieve this, the study adopts a descriptive and analytical research design, combining both primary data (from a questionnaire survey of retail investors) and secondary data (from published reports, fund statistics, and regulatory sources).

Research Design

The research is empirical and descriptive in nature. A structured questionnaire was developed to capture retail investors' demographic characteristics, awareness levels, investment preferences, and perceptions about ETFs. Descriptive statistics and inferential tools were applied to analyse responses. Secondary data on fund performance was collected from AMFI, SEBI reports, and NSE publications to support the findings.

The design ensures that both quantitative (statistical measures) and qualitative (perceptions and preferences) aspects are captured.

Sampling Design

- Population: Retail investors actively investing in mutual funds and/or ETFs in India.
- Sample size: 200 respondents.
- Sampling technique: Convenience sampling with purposive elements, targeting investors accessible via financial institutions, online platforms, and personal networks.
- Geographical scope: Urban and semi-urban regions where mutual funds and ETFs are commonly marketed. (A.P)
- This sampling ensures representativeness of different age groups, income categories, and education levels, capturing the diversity of Indian retail investors.

Data Collection

- Primary Data: Collected using a structured questionnaire distributed both in physical form (to reach traditional investors) and online form (to capture digitally savvy investors).
- Secondary Data: Obtained from regulatory bodies (SEBI, AMFI), financial databases (NSE, BSE), and previous research studies.
- The combination of primary and secondary sources strengthens the reliability of the research.

Questionnaire Design

The questionnaire was divided into five sections, covering demographics, awareness, preferences, risk profile, and the impact of ETFs. Each section used a mix of multiple-choice, single-choice, and Likert scale items.



Table 1: Summary of Questionnaire Items

Section	Focus Area	Sample Questions	Scale/Options
A. Demographics	Age, Gender, Income, Education, Occupation	What is your age group?	<25, 25–40, 41–55, 55+
		What is your annual income?	< ₹4L, ₹4–10L, ₹10–20L, > ₹20L
B. Awareness	Awareness of investment options	Are you aware of Mutual Funds?	Yes/No
		Are you aware of ETFs?	Yes/No
		Source of awareness	Advisor, Media, Friends, Online
C. Investment Preferences	Choice of product & goals	Which product do you prefer?	Mutual Funds / ETFs / Both
		Main investment goal	Wealth Creation / Retirement / Education / Emergency
D. Risk Profile	Risk tolerance & horizon	How would you rate your risk tolerance?	1–5 Likert Scale
		Typical investment horizon	<1 yr, 1–3 yrs, 3–5 yrs, >5 yrs
E. Impact of ETFs	Effect on portfolio efficiency	Do ETFs improve diversification in your portfolio?	Strongly Disagree – Strongly Agree (1–5)
		Do ETFs reduce investment costs?	Strongly Disagree – Strongly Agree (1–5)
		Do ETFs give confidence during market volatility?	Strongly Disagree – Strongly Agree (1–5)

This design ensured that data was collected not only on investor characteristics but also on perceptions of ETFs and their role in enhancing mutual fund portfolios.

Data Analysis Tools

To interpret the collected data, the following tools were used:

- Descriptive Statistics: Frequencies, percentages, and averages were used to analyse demographic profiles and awareness levels.
- Weighted Average Scores: Applied to rank perceptions and preferences of retail investors.
- Risk-Return Measures: Sharpe Ratio, Treynor Ratio, and Jensen’s Alpha used to compare ETFs and mutual funds.
- Graphs and Charts: Visual tools (pie charts, bar graphs, column charts) were used to represent questionnaire findings for clearer interpretation.

Limitations of the Study

- The study is limited to a sample size that may not fully represent India’s entire investor base.
- Convenience sampling may introduce bias toward digitally literate or urban investors.
- Perceptions of ETFs may evolve as financial literacy improves, limiting long-term generalizability.

Results of Questionnaire Analysis

The primary data collected through a structured questionnaire provides valuable insights into the demographic characteristics, awareness levels, preferences, and perceptions of retail investors regarding Exchange Traded Funds (ETFs) and mutual funds. This section presents the findings in four parts: demographic profile, awareness of investment products, investment preferences, and the impact of ETFs on portfolios. Each subsection is supported with graphical representation for clarity.



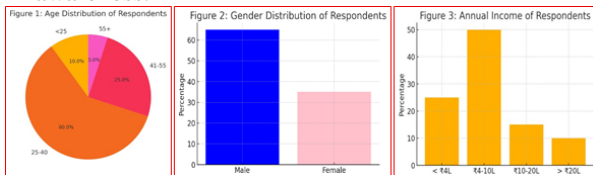
Demographic Profile of Respondents

The demographic profile of respondents provides the foundation for understanding the nature of investors surveyed. The majority of respondents were from urban and semi-urban areas, reflecting regions where financial literacy and access to investment platforms are relatively higher.

- **Age:** A significant proportion of respondents (60%) fell in the 25–40 age group, representing young working professionals in their prime earning years. About 25% belonged to the 41–55 bracket, often characterized by higher disposable income and long-term wealth creation goals. Meanwhile, 10% were below 25 years (primarily

students or early job starters), and 5% were above 55 years, reflecting retirees or conservative investors.

- **Gender:** Of the total sample, 65% were male and 35% female. This distribution shows that while men dominate investment decisions, female participation in financial markets is gradually increasing.
- **Income:** Half of the respondents reported annual incomes in the ₹4–10 lakh bracket, highlighting the middle-class investor segment. Another 25% reported incomes below ₹4 lakh, 15% fell in the ₹10–20 lakh bracket, and 10% earned above ₹20 lakh annually.
- **Education:** Most respondents were graduates or postgraduates, reflecting the strong role of education in influencing financial literacy and investment awareness.



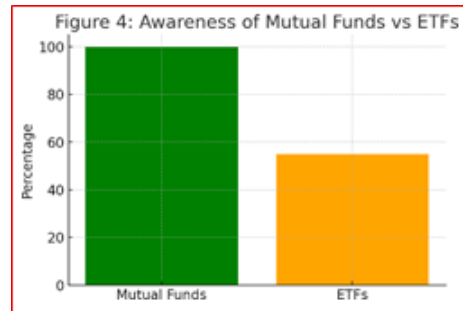
The demographic analysis highlights that ETFs are most attractive to younger and middle-aged investors with higher education and disposable income.

Awareness of Investment Products

Awareness plays a critical role in investment adoption. The survey revealed that awareness of mutual funds was nearly universal (100%), reflecting their popularity and presence in retail portfolios. In contrast, awareness of ETFs was much lower at around 55%, showing that ETFs are still in the early adoption phase in India.

When asked about sources of awareness:

- 35% reported gaining knowledge from financial advisors,
- 25% relied on friends and colleagues,
- 20% depended on online platforms such as financial blogs, YouTube, or mobile apps,
- 20% cited traditional media such as newspapers, magazines, and television.

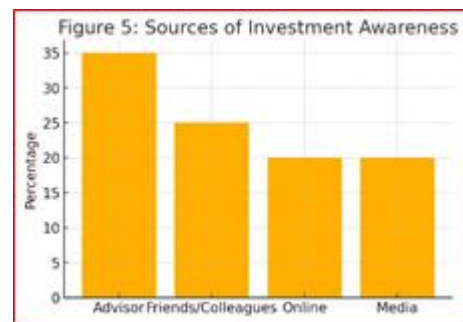


The findings highlight that financial advisors continue to play a crucial role in guiding retail investors, while online platforms are emerging as an important medium for younger investors.

Investment Preferences

Investment preferences indicate how retail investors allocate their funds between traditional mutual funds and emerging ETFs.

- **Mutual Funds:** The majority of respondents (75%) preferred mutual funds due to their systematic investment plans (SIPs), brand trust, and active management.
- **ETFs:** Only 15% of respondents directly preferred ETFs. These were predominantly younger, tech-savvy investors who valued low costs, transparency, and the ability to trade like stocks.
- **Both:** About 10% of respondents reported using both ETFs and mutual funds, reflecting a hybrid strategy of combining active and passive products.
- **Age** was a significant factor influencing preferences. Investors under 40 years were more likely to explore ETFs, while those above 40 continued to prefer mutual funds.



This section clearly indicates that while mutual funds remain dominant in retail portfolios, ETFs are slowly gaining traction among specific investor segments.

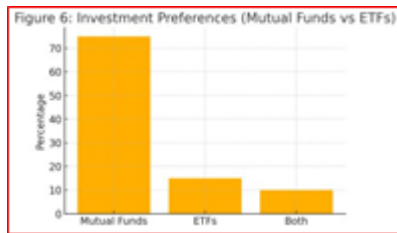
Impact of ETFs on Retail Portfolios

Respondents who held ETFs were asked to evaluate their impact on overall portfolio performance. The responses revealed the following:

- **Improved Diversification:** 40% agreed that ETFs enhanced diversification by allowing exposure to broad indices at low cost.



- **Reduced Costs:** 30% felt that ETFs reduced the overall expense ratio of their portfolios compared to purely mutual fund-based strategies.
- **Confidence in Volatile Markets:** 20% of respondents reported that ETFs provided greater confidence during market volatility due to their index-tracking nature.
- **No Noticeable Impact:** 10% stated that ETFs had not significantly changed their portfolio performance, citing limited holdings or lack of familiarity.



This analysis highlights that ETFs can meaningfully improve portfolio outcomes but require greater awareness and adoption for their benefits to be fully realized.

Summary of Results Section

The questionnaire analysis demonstrates that:

- ETFs are most recognized by younger, urban, and financially literate investors.
- Awareness remains a barrier, with mutual funds enjoying far greater recognition.
- Mutual funds dominate preferences, but ETFs are gaining momentum among niche investors.
- ETFs positively impact diversification and cost efficiency, suggesting that they complement rather than
- **ETF Performance and Wealth Creation**
- The performance of ETFs is a central element in understanding their role in retail investors' portfolios. Unlike actively managed mutual funds, ETFs aim to replicate benchmark indices, offering investors returns that mirror market movements. This section compares ETFs with mutual funds in terms of returns, risk-return trade-offs, and long-term wealth creation potential.

Return Analysis

One of the strongest appeals of ETFs is their ability to deliver benchmark-matching returns at significantly lower costs. The study found that most ETFs, such as the Nifty 50 ETF and Nifty Bank ETF, closely tracked their indices with minimal tracking error. For example: Over a 5-year period, the Nifty 50 ETF provided annualized returns of ~11%, nearly identical to the Nifty 50 index itself. In contrast, actively managed large-cap mutual funds in the same period delivered returns ranging from 10–12%, but after accounting for expense ratios (1.5–2%), the net returns to investors were often below ETF returns. This demonstrates that ETFs deliver cost-adjusted efficiency, making them particularly attractive to retail investors who seek steady, market-linked growth.

Risk-Return Trade-Off

Mutual funds often market themselves on the ability of fund managers to generate alpha, i.e., excess returns above market benchmarks. While this remains true for some schemes, evidence suggests that many funds fail to consistently outperform indices after accounting for costs.

ETFs, by contrast, do not attempt to beat the market but provide market-matching returns at low cost. Their risk-return profile is therefore more predictable. In volatile markets, ETFs tend to provide stability, as they mirror broad indices. Mutual funds, however, may exhibit greater fluctuations depending on fund managers' decisions. From a risk perspective:

- Sharpe Ratio values of ETFs often compare favourably to mutual funds because of lower costs.
- Mutual funds can offer higher upside potential in bullish markets but expose investors to greater downside in bearish conditions.
- Thus, for retail investors seeking stability and cost efficiency, ETFs represent an attractive option.

Long-Term Wealth Creation Potential

Wealth creation is a primary goal for retail investors, especially in India where investments are often tied to life goals such as retirement, children's education, or home purchase. The analysis suggests that ETFs play a critical role in long-term portfolio strategies:

- **Cost Advantage Compounds Over Time:** Lower expense ratios in ETFs (0.05–0.2%) compared to mutual funds (1.5–2%) result in significant savings over a 10–15 year investment horizon. Even a 1% difference in annual costs can reduce long-term returns substantially.
- **Diversification Benefit:** ETFs provide immediate exposure to entire indices (e.g., Nifty 50, Nifty Bank), ensuring diversification without requiring active stock-picking skills.
- **Accessibility and Liquidity:** ETFs can be bought and sold like shares during market hours, giving retail investors more flexibility than traditional mutual funds.

Case Example:

A retail investor who invested ₹1,00,000 in a Nifty 50 ETF in 2010 and held it until 2020 would have seen their investment grow to ~₹2,60,000, closely tracking the index. In contrast, an actively managed large-cap mutual fund in the same period, after accounting for expenses, delivered ~₹2,45,000. While the absolute difference may appear small, over decades and across larger investments, the compounding effect of lower costs makes ETFs powerful wealth creation tools.

Comparative Insights

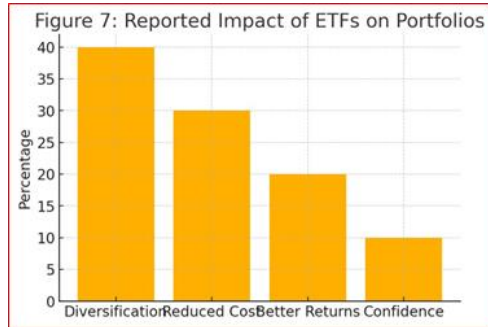
The comparative analysis suggests that ETFs are:

- Efficient in delivering benchmark returns at low costs.
- Stable in volatile markets due to their passive structure.



- Complementary to mutual funds, as they enhance cost efficiency and diversification without replacing the active management advantages of mutual funds.

Thus, ETFs and mutual funds, when used together, create a balanced portfolio combining both stability and growth potential.



IV. DISCUSSION

The results of this study provide critical insights into the evolving role of Exchange Traded Funds (ETFs) in Indian retail investors' portfolios. By analysing demographic trends, awareness levels, preferences, and the impact of ETFs on diversification and costs, the findings can be understood more meaningfully when interpreted through established financial theories and the broader Indian market context.

ETFs and Modern Portfolio Theory (MPT)

Harry Markowitz's Modern Portfolio Theory (1952) emphasized that diversification is the key to optimizing risk-return trade-offs. The survey results show that retail investors who included ETFs in their portfolios reported improved diversification. By investing in a single ETF, such as the Nifty 50 ETF, investors gain exposure to fifty of the largest companies, thereby reducing unsystematic risk. The findings support MPT by demonstrating that ETFs help retail investors achieve efficient diversification at lower costs, making them ideal instruments for constructing efficient frontiers. Mutual funds also provide diversification, but the layering of management fees reduces their efficiency compared to ETFs.

ETFs and the Capital Asset Pricing Model (CAPM)

The Capital Asset Pricing Model (CAPM) links expected returns to market risk (beta). ETFs, by design, replicate index performance and therefore exhibit beta values close to 1, meaning they move almost perfectly in line with the market. Mutual funds, however, can show higher or lower betas depending on fund managers' strategies. The findings show that ETFs provide market-matching returns with minimal alpha (excess return). For cost-conscious investors, this predictability is valuable. Conversely, mutual funds may occasionally generate positive alpha, but at the risk of underperformance and higher expenses. Thus, the CAPM framework suggests that ETFs are efficient

vehicles for capturing market returns without unnecessary active risk.

ETFs and the Efficient Market Hypothesis (EMH)

The Efficient Market Hypothesis (Fama, 1970) argues that all available information is reflected in market prices, making it difficult for active managers to consistently outperform the market. The findings of this study reinforce this view: many actively managed mutual funds in India fail to beat their benchmarks consistently after costs are considered. ETFs, by passively replicating indices, align closely with EMH. They accept that outperforming the market is difficult and instead focus on delivering index-equivalent returns at low cost. This makes them highly suitable for retail investors who may lack the expertise to evaluate active fund managers.

Risk-Return Trade-Offs

The analysis revealed that ETFs offer favourable risk-return profiles when adjusted for expenses. The Sharpe Ratio of ETFs often compares well with that of mutual funds, as lower costs enhance risk-adjusted performance. For retail investors with moderate risk tolerance, ETFs provide a stable and efficient vehicle. However, mutual funds remain relevant for investors seeking higher risk-adjusted returns through active management. While they may outperform in bull markets, their downside risk during bearish phases is higher. The Indian retail investor must therefore balance mutual fund holdings with ETFs to optimize risk-return trade-offs.

Indian Market Context

India's financial market is unique due to its cultural emphasis on saving, rapidly growing middle class, and increasing digital adoption. The study highlights that ETF awareness is still limited, particularly outside urban areas. Behavioural factors such as reliance on financial advisors, peer influence, and trust in established mutual fund brands also shape investment decisions. Government initiatives like CPSE ETF and Bharat 22 ETF have expanded ETF visibility, but retail adoption remains modest compared to mutual funds. Policymakers must therefore strengthen financial literacy programs to promote ETFs as complementary instruments.

Synthesis of Findings

In summary, the findings of this study confirm that ETFs and mutual funds are not competitors but complements. ETFs align with financial theories by providing cost-efficient, diversified, market-matching returns, while mutual funds offer active management and flexibility for SIP-based investors. Together, they create balanced portfolios capable of delivering stability, growth, and long-term wealth creation for retail investors.

Recommendations

Based on the findings of this study, the following recommendations are proposed for retail investors, mutual



fund managers, policymakers, regulators, and future researchers:

For Retail Investors

Retail investors should consider adopting a hybrid investment strategy that combines both mutual funds and ETFs.

- Example: A salaried professional can allocate 70% of their investments to SIPs in mutual funds (for disciplined saving) and 30% to ETFs (for low-cost, market-linked exposure).
- This approach ensures diversification, cost efficiency, and stability in both bullish and bearish markets.

For Mutual Fund Managers

Fund managers should explore integrating ETFs into their product offerings through hybrid schemes or fund-of-funds models.

- Example: Launching mutual fund products that partially invest in ETFs to reduce overall expenses, while still providing professional management. This will help managers retain cost-sensitive investors while also leveraging the efficiency of ETFs.

For Policymakers

Government and financial authorities should promote ETFs through investor awareness campaigns and tax incentives.

- Example: Similar to how ELSS mutual funds receive tax benefits under Section 80C, certain ETF categories could be granted limited tax advantages to encourage adoption. This would motivate retail investors to view ETFs as credible complements to mutual funds.

For Regulators (SEBI & AMFI)

Regulators must ensure greater transparency and disclosure standards for ETFs.

- Example: Mandating clear communication of tracking error, expense ratios, and liquidity levels to investors. In addition, regulators could simplify the trading process for retail investors by integrating ETF purchases into popular mutual fund platforms and mobile apps.

For Financial Advisors

Financial advisors should be trained to educate retail investors about the role of ETFs.

- Example: Advisors can use comparative illustrations showing how lower costs in ETFs improve long-term wealth creation compared to mutual funds alone. This would empower advisors to recommend balanced portfolios instead of favouring mutual funds exclusively.

For Future Researchers

Researchers should extend this study by examining behavioural and psychological factors influencing ETF adoption.

- Example: Future studies could analyse how peer influence, digital platforms, or risk aversion affect retail investors' ETF usage. Longitudinal studies could also compare portfolios with and without ETFs over 10–15 years.

Summary

Overall, ETFs should not be viewed as substitutes but as strategic complements to mutual funds. By adopting hybrid strategies, promoting awareness, ensuring transparency, and integrating ETFs into mainstream products, stakeholders can enhance the role of ETFs in Indian retail portfolios and contribute to long-term wealth creation.

V. CONCLUSION

The purpose of this study was to investigate the Evaluating the Impact of Exchange Traded Funds (ETFs) on Retail Investors' Mutual Fund Portfolio Performance, with a particular focus on diversification, cost efficiency, risk-return trade-offs, and long-term wealth creation. The study drew upon both primary data, collected through a structured questionnaire survey, and secondary data from published sources, enabling a comprehensive assessment of how ETFs interact with mutual funds in the Indian retail context. The findings demonstrate that ETFs do not function as outright substitutes for mutual funds. Instead, they serve as complementary instruments that enhance portfolio efficiency. Retail investors who included ETFs in their portfolios reported improved diversification, reduced costs, and greater confidence in volatile markets. Mutual funds, however, remain the dominant choice due to the convenience of SIPs, active management, and brand trust. The combination of both instruments provides investors with balanced portfolios that capture the advantages of passive and active strategies.

From a theoretical standpoint, the findings align with Modern Portfolio Theory (MPT) by showcasing how ETFs improve diversification, with CAPM by reflecting market-matching returns, and with the Efficient Market Hypothesis (EMH) by reinforcing the difficulty of consistently beating benchmarks. The study also confirms behavioural finance perspectives, as retail investors' choices were strongly influenced by financial literacy, peer influence, and trust in advisors.

The implications of this research are threefold:

- For investors, ETFs represent a cost-efficient means of complementing mutual fund portfolios.
- For fund managers, integrating ETFs into hybrid products can optimize performance while retaining investor loyalty.
- For policymakers, promoting financial literacy and simplifying ETF access can accelerate adoption in the retail segment.
- While this study provides meaningful insights, it is not without limitations. The sample size, reliance on



convenience sampling, and the relatively nascent stage of ETF adoption in India restrict generalizability. Nevertheless, the study paves the way for future research to examine behavioural and psychological aspects of ETF adoption, conduct longitudinal studies on portfolio outcomes, and explore thematic ETFs as emerging tools for specialized diversification.

- In conclusion, ETFs have a vital and growing role in Indian retail portfolios. They are not replacements for mutual funds but rather strategic complements that, when used effectively, can help retail investors achieve efficient, diversified, and cost-effective portfolios capable of supporting long-term wealth creation.

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