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ETF vs. Mutual Fund: A Comparative Analysis of Returns, Expenses, Risk-Adjusted Performance, and Benchmark Tracking in India

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***Abstract*—This paper investigates the comparative performance of Exchange Traded Funds (ETFs) and Mutual Funds in the Indian capital market through a primary survey of 250 respondents comprising both retail and institutional investors. Structured questionnaires captured investor perceptions across seven key dimensions: demographic profile, investment preferences, annual returns, expense ratio, volatility, risk-adjusted returns, and benchmark tracking quality. The findings indicate that investment preferences are nearly equally distributed across ETF-only (32.8%), Mutual Fund-only (33.2%), and hybrid (34.0%) investors, reflecting a growing trend of portfolio diversification. Return analysis reveals broad distribution across all return bands, with 25.6% of respondents reporting above-15% annual returns. While 55.6% of respondents are aware of the expense ratio, a significant 44.4% lack this knowledge. The study tests four hypotheses: differential returns between ETFs and MFs (H1), lower expense ratios for ETFs (H2), variation in risk-adjusted returns (H3), and superior benchmark tracking by ETFs (H4). Results provide moderate support for H1 and H3, while H2 and H4 receive partial support due to product sub-type heterogeneity. The research contributes empirical investor-reported evidence to complement existing secondary-data-based studies on ETF and Mutual Fund performance in India.**

***Keywords*—Exchange Traded Funds (ETFs), Mutual Funds, Expense Ratio, Benchmark Tracking, Risk-Adjusted Returns, Indian Capital Market, Investor Survey, Passive Investment**

I. Introduction

The Indian financial system has undergone remarkable transformation over the last two decades, shaped by economic liberalization, rapid advances in financial technology, growing investor awareness, and far-reaching regulatory reforms implemented by the Securities and Exchange Board of India (SEBI). Within this evolving investment landscape, two instruments — Mutual Funds and Exchange Traded Funds (ETFs) — have emerged as dominant investment vehicles for both retail and institutional investors across the country.

Mutual Funds, long regarded as the cornerstone investment product for the Indian middle class, offer professionally managed diversified portfolios accessible through systematic investment plans (SIPs). They are available in both actively managed and passively indexed forms, catering to a wide spectrum of investor risk appetites and time horizons. ETFs, while a relatively recent entrant in the Indian market compared to their presence in developed economies, have witnessed exponential growth in assets under management (AUM) since 2015, driven primarily by EPFO mandated investments and retail awareness campaigns by SEBI and AMFI.

The fundamental appeal of ETFs lies in their structural advantages: lower expense ratios, intraday trading flexibility, price transparency, and strict passive benchmark replication. Mutual Funds, on the other hand, offer the flexibility of active management, professional fund selection, and automatic portfolio rebalancing features that may generate alpha during volatile market conditions but at a higher cost. Despite both instruments targeting similar investment goals, they differ profoundly in structure, cost architecture, liquidity profile, management philosophy, and tax treatment.

With the proliferation of ETFs tracking major Indian benchmarks such as Nifty 50, Sensex, and Bank Nifty, as well as sector-specific ETFs in Banking, Information Technology, Pharmaceuticals, FMCG, Energy, and Infrastructure, investors increasingly face the dilemma of choosing between ETFs and actively managed Mutual Funds for identical investment objectives. This ambiguity is further compounded by the recent convergence of passive Mutual Funds (Index Funds) and ETFs in terms of benchmark exposure and cost structure.

This paper addresses this gap by presenting a primary survey-based analysis of 250 investors in India, examining how they experience and evaluate ETFs and Mutual Funds across seven key dimensions. The findings are empirically grounded in actual investor-reported data and are designed to provide practical insights for investors, financial advisors, and policymakers.

II. Review Of Literature

Kumar and Pandey (2022) studied cost efficiency and performance consistency over extended investment periods, finding that ETFs outperform active mutual funds on a post-expense basis during stable market conditions.

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Bansal and Sharma (2021) conducted a comprehensive analysis comparing ETFs and Mutual Funds across the Indian capital market, concluding that ETFs offer superior cost efficiency and transparency.

Singh and Kaur (2020) examined sectoral ETFs in India across banking, IT, and pharmaceutical sectors, finding that these instruments closely tracked their respective benchmark indices.

Madhavan and Sobczyk (2016) analysed the role of market microstructure in ETF pricing and found that bid-ask spreads and tracking error are significantly influenced by the liquidity of underlying securities.

Agapova (2011) examined the substitutability between conventional index mutual funds and ETFs, finding that while both serve similar investment purposes, ETFs attract more sophisticated, cost-sensitive investors while index mutual funds serve retail investors seeking simplicity and SIP investment modes. This distinction remains highly relevant in the Indian market context.

A. Research Gap

A critical review of existing literature reveals that while there is substantial research on ETF and Mutual Fund performance using secondary market data, there is a significant gap in investor-perception-based primary research in the Indian context. Specifically, the following gaps are identified: most studies are based on fund-level secondary data (NAV, AUM, expense ratios from fact sheets) rather than direct investor-reported experiences; existing research rarely examines investor awareness of expense ratios and its linkage to actual investment behaviour; comparative benchmark tracking quality from the investor's perspective, as opposed to calculated tracking error from fund data, has not been empirically explored; and no existing study simultaneously addresses all four dimensions of returns, expenses, risk-adjusted performance, and benchmark tracking in a unified investor survey framework. This paper bridges these gaps by deploying a structured primary survey among 250 Indian investors and conducting a multi-dimensional comparative analysis.

III. Objectives Of The Study

1) To analyse the relative performance of ETFs and Mutual Funds based on investor-reported average annual returns and return satisfaction levels.
2) To examine the cost profile of ETF and Mutual Fund investments by studying investor awareness of expense ratios, the expense ratio bands reported, and perceived affordability.
3) To evaluate the risk and risk-adjusted return characteristics of ETFs and Mutual Funds by analysing investor-reported volatility, return consistency, and risk-adjusted return satisfaction.
4) To assess benchmark tracking quality and tracking error across ETF and Mutual Fund investors.
5) To identify investor demographics, preferences, and their relationship to investment outcomes across ETF and Mutual Fund categories.

IV. Hypotheses

Based on the research objectives and existing literature, the following research hypotheses are formulated:

TABLE I
Research Hypotheses

Code	Hypothesis Statement	Basis
H1	There is a significant difference in average annual returns between ETF and Mutual Fund investors.	Jensen (1968); Fama & French (2010)
H2	Expense ratios reported by ETF investors are lower than those reported by Mutual Fund investors.	Sharpe (1991); Elton et al. (2004); Sehgal & Gupta (2018)
H3	There exists a significant variation in risk-adjusted return satisfaction between ETF and Mutual Fund investors.	Kumar & Pandey (2022); Bansal & Sharma (2021)
H4	ETF investors report closer benchmark tracking compared to Mutual Fund investors.	Singh & Kaur (2020); Sehgal & Gupta (2018)

Source: Formulated based on literature review

V. Research Methodology

A. Research Design

This study adopts a descriptive and analytical research design. The descriptive component characterizes the investor profile, investment preferences, and self-reported performance outcomes across the sample. The analytical component involves frequency analysis, percentage analysis, cross-tabulation, and hypothesis-based comparative analysis between ETF and Mutual Fund investor sub-groups. The research design closely follows the structured KAB (Knowledge–Attitude–Behaviour) tradition adapted for investment behaviour research.

B. Data Collection Method

Primary data were collected through a structured questionnaire comprising 17 closed-ended questions organized across seven thematic sections. The questionnaire was designed based on validated constructs from prior investment behaviour research and pre-tested on 30 respondents to ensure clarity and internal consistency.

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The final instrument was administered through both online and offline channels.

C. Sampling Technique

A purposive sampling technique was employed to ensure that all respondents had active investments in ETFs, Mutual Funds, or both. Within this purposive framework, quota sampling was applied to achieve a balanced representation of retail and institutional investors, as well as a spread across age groups and investment experience levels.

D. Sample Size

The target population comprises active ETF and Mutual Fund investors in India. Using the Krejcie and Morgan (1970) formula for sample size determination with a confidence level of 95% and margin of error of 5%, the minimum required sample size for an infinite population is 384. However, given the focused nature of this study on active investors in a specific product category, a final sample of 250 respondents was collected, consistent with several comparable Indian investment behaviour studies (Sehgal & Gupta, 2018; Bansal & Sharma, 2021). The sample comprises 131 retail investors (52.4%) and 119 institutional investors (47.6%).

E. Variables of the Study

The study includes the following variables:

TABLE II
VARIABLES USED IN THE STUDY

Variable Type	Variable Name	Measurement Scale
Demographic	Age	Ordinal (4 categories)
Demographic	Investment Experience	Ordinal (4 levels)
Demographic	Type of Investor	Nominal (Retail / Institutional)
Demographic	Risk Bearing Capacity	Ordinal (Low / Medium / High)
Investment Preference	Primary Investment Instrument	Nominal (ETF / MF / Both)
Investment Preference	ETF Sub-type	Nominal (Stock / Index / Sector)
Investment Preference	Mutual Fund Sub-type	Nominal (Index / Sector / Diversified)
Returns	Average Annual Return (last 3 years)	Ordinal (4 bands)
Returns	Return Satisfaction	Ordinal (5-point scale)
Expense	Awareness of Expense Ratio	Nominal (Yes / No)
Expense	Expense Ratio Band	Ordinal (4 bands)
Expense	Expense Affordability	Ordinal (5-point scale)
Risk & Tracking	Volatility Experienced	Ordinal (5-point scale)
Risk & Tracking	Return Consistency	Ordinal (5-point scale)
Risk & Tracking	Risk-Adjusted Return Satisfaction	Ordinal (5-point scale)
Risk & Tracking	Benchmark Tracking Quality	Ordinal (5-point scale)
Risk & Tracking	Tracking Error	Ordinal (Low / Moderate / High)

Source: Questionnaire design by the researcher

F. Tools Used for Analysis

Frequency and percentage analysis for all 17 variables. Cross-tabulation analysis comparing ETF, Mutual Fund, and both investor sub-groups across key performance variables. Hypothesis-based comparative analysis to test H1 through H4. Microsoft Excel and SPSS 21 were used for data processing, frequency tabulation, and cross-tabulation.

VI. Data Analysis And Interpretation

A. Demographic Profile of Respondents

1) Age Distribution

TABLE III
DISTRIBUTION OF RESPONDENTS BY AGE

Age Group	Frequency	Percentage (%)
Below 25	47	18.8
25–35	72	28.8
35–50	66	26.4
Above 50	65	26.0
Total	250	100.0

Source: Primary data, n = 250

The 25–35 age group represents the largest cohort (28.8%, n=72), reflecting the significant entry of millennial investors into capital market instruments in recent years. The 35–50 (26.4%) and Above 50 (26.0%) groups are nearly equal in size, suggesting sustained participation across mature working-age investors. The Below 25 segment, at 18.8%, indicates early adoption of ETFs and Mutual Funds among Gen-Z investors.

2) Investment Experience

TABLE IV
DISTRIBUTION OF RESPONDENTS BY INVESTMENT EXPERIENCE

Experience Level	Frequency	Percentage (%)
Less than 1 Year	56	22.4
1–3 Years	70	28.0
3–5 Years	45	18.0
More than 5 Years	79	31.6
Total	250	100.0

Source: Primary data, n = 250

The largest segment comprises experienced investors with more than five years of active investment experience (31.6%, n=79). This is followed by the 1–3 year group (28.0%), suggesting a healthy mix of veteran and newer investors. Collectively, 59.6% of respondents have at least one year of investment experience, lending credibility to their self-reported performance assessments.

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3) Investor Type

TABLE V
INVESTOR TYPE

Category	Sub-Category	Frequency	Percentage (%)
Investor Type	Retail Investor	131	52.4
Investor Type	Institutional Investor	119	47.6

Source: Primary data, n = 250

The sample achieves near-equal representation between retail (52.4%) and institutional (47.6%) investors, enabling meaningful comparative analysis across investor categories.

4) Investor Risk Bearing Capacity

TABLE VI
INVESTOR RISK BEARING CAPACITY

Risk Bearing Capacity	Frequency	Percentage (%)
Low	89	35.6
Medium	83	33.2
High	78	31.2

Source: Primary data, n = 250

Risk bearing capacity is broadly distributed across all three levels — Low (35.6%), Medium (33.2%), and High (31.2%) — reflecting genuine diversity in the risk appetite of active ETF and Mutual Fund investors in India.

B. Investment Preferences Analysis

1) Primary Investment Instrument

TABLE VII
DISTRIBUTION BY PRIMARY INVESTMENT INSTRUMENT

Investment Instrument	Frequency	Percentage (%)
ETFs Only	82	32.8
Mutual Funds Only	83	33.2
Both ETFs and Mutual Funds	85	34.0
Total	250	100.0

Source: Primary data, n = 250

The distribution of primary investment preferences is strikingly balanced across all three categories. The 'Both ETFs and Mutual Funds' category is marginally dominant at 34.0% (n=85), indicating a growing hybrid investment approach among Indian investors who leverage the complementary strengths of both instruments. ETF-only (32.8%) and Mutual Fund-only (33.2%) preferences are almost identical, suggesting neither instrument has achieved dominant preference in the surveyed population.

2) ETF and Mutual Fund Sub-Type Preferences

TABLE VIII
ETF AND MUTUAL FUND SUB-TYPE PREFERENCES

Instrument Category	Sub-Type	Frequency	Percentage (%)
ETF Type	Stock ETF	86	34.4
ETF Type	Index ETF	84	33.6
ETF Type	Sector ETF	80	32.0
Mutual Fund Type	Index Fund	96	38.4
Mutual Fund Type	Sector Fund	83	33.2
Mutual Fund Type	Diversified Equity Fund	71	28.4

Source: Primary data, n = 250

Among ETF investors, Stock ETFs are marginally preferred (34.4%), with Index ETFs (33.6%) and Sector ETFs (32.0%) closely following. This near-uniform distribution suggests that Indian ETF investors are diversified across sub-types, with no overwhelming concentration in any single category. For Mutual Fund investors, Index Funds are the most preferred sub-type (38.4%), consistent with SEBI's push for passive investment products and the growing popularity of Nifty 50 and Nifty Next 50 index funds. Diversified Equity Funds are least preferred (28.4%), possibly due to concerns about active management costs and inconsistent alpha generation.

C. Returns and Satisfaction Analysis

1) Average Annual Returns

TABLE IX
DISTRIBUTION BY AVERAGE ANNUAL RETURN (LAST 3 YEARS)

Return Band	Frequency	Percentage (%)
Below 5%	62	24.8
5%–10%	62	24.8
10%–15%	62	24.8
Above 15%	64	25.6
Total	250	100.0

Source: Primary data, n = 250

The 25.6% reporting above-15% annual returns indicates strong performers, while the 24.8% reporting below-5% returns underline the significant underperformance tail in the sample — likely reflecting investors in conservative debt-oriented mutual funds or poorly performing sector funds.

2) Return Satisfaction

TABLE X
DISTRIBUTION BY RETURN SATISFACTION LEVEL

Satisfaction Level	Frequency	Percentage (%)
Very Low	49	19.6
Low	41	16.4
Medium	46	18.4
High	60	24.0
Very High	54	21.6
Total	250	100.0

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Source: Primary data, n = 250

3) Cross-Tabulation: Primary Investment × Average Annual Return (Testing H1)

TABLE XI
CROSS-TABULATION OF PRIMARY INVESTMENT INSTRUMENT VS. AVERAGE ANNUAL RETURN

Return Band	ETFs Only	MFs Only	Both	Total
Below 5%	18 (22.0%)	21 (25.3%)	23 (27.1%)	62 (24.8%)
5%–10%	24 (29.3%)	20 (24.1%)	18 (21.2%)	62 (24.8%)
10%–15%	18 (22.0%)	22 (26.5%)	22 (25.9%)	62 (24.8%)
Above 15%	22 (26.8%)	20 (24.1%)	22 (25.9%)	64 (25.6%)
Total	82 (100%)	83 (100%)	85 (100%)	250 (100%)

Source: Primary data, n = 250. Figures in parentheses are column percentages.

H1 Interpretation: ETF investors show the highest proportion earning 5%–10% returns (29.3%) and above-15% returns (26.8%), while Mutual Fund investors are more concentrated in the 10%–15% band (26.5%). Although differences are moderate, ETF investors marginally outperform in high-return bands, providing partial empirical support for H1. The near-uniform distribution within each sub-group, however, suggests that product sub-type and market conditions are stronger determinants of return than the broad ETF vs. MF category distinction.

D. Expense Ratio Analysis

1) Awareness of Expense Ratio

TABLE XII
INVESTOR AWARENESS OF EXPENSE RATIO

Awareness	Frequency	Percentage (%)
Aware (Yes)	139	55.6
Not Aware (No)	111	44.4
Total	250	100.0

Source: Primary data, n = 250

A notable 44.4% of respondents are unaware of the expense ratio of their investment. Awareness is likely higher among institutional investors and more experienced investors, but the aggregate figure underscores the need for enhanced investor education by SEBI and AMFI.

2) Expense Ratio Band Distribution

TABLE XIII
DISTRIBUTION BY EXPENSE RATIO BAND

Expense Ratio Band	Frequency	Percentage (%)
Below 0.5%	58	23.2
0.5%–1%	69	27.6
1%–2%	56	22.4
Above 2%	67	26.8
Total	250	100.0

Source: Primary data, n = 250

The modal expense ratio band is 0.5%–1% (27.6%), typical of index mutual funds and liquid ETFs. A significant 26.8% report expense ratios above 2%, which is characteristic of actively managed Mutual Funds, sector funds, and small/mid-cap funds. The 23.2% reporting below 0.5% likely includes primarily ETF investors and large-cap passive index fund investors.

3) Cross-Tabulation: Primary Investment × Expense Ratio (Testing H2)

TABLE XIV
CROSS-TABULATION OF PRIMARY INVESTMENT INSTRUMENT VS. EXPENSE RATIO BAND

Expense Ratio Band	ETFs Only	MFs Only	Both	Total
Below 0.5%	16 (19.5%)	19 (22.9%)	23 (27.1%)	58 (23.2%)
0.5%–1%	20 (24.4%)	27 (32.5%)	22 (25.9%)	69 (27.6%)
1%–2%	23 (28.0%)	22 (26.5%)	11 (12.9%)	56 (22.4%)
Above 2%	23 (28.0%)	15 (18.1%)	29 (34.1%)	67 (26.8%)
Total	82 (100%)	83 (100%)	85 (100%)	250 (100%)

Source: Primary data, n = 250

H2 Interpretation: Contrary to the theoretical expectation of lower ETF expenses, ETF-only investors actually report higher proportions in the 1%–2% bracket (28.0%) compared to Mutual Fund investors (26.5%). Mutual Fund investors show greater concentration in the 0.5%–1% band (32.5%), likely reflecting the prevalence of passively managed Index Funds within the MF category. H2 is only partially supported. The anomaly is explained by the composition of the ETF sub-sample — Stock ETFs and Sector ETFs often carry higher expense ratios than pure Index ETFs — and the dominance of Index Funds among MF investors.

E. Risk, Volatility, and Return Consistency Analysis

1) Volatility Experienced

TABLE XV
DISTRIBUTION BY VOLATILITY EXPERIENCED

Volatility Level	Frequency	Percentage (%)
Very Low	57	22.8
Low	53	21.2
Medium	45	18.0
High	52	20.8
Very High	43	17.2
Total	250	100.0

Source: Primary data, n = 250

Volatility perceptions are distributed across all five levels. The combined Very Low and Low category accounts for 44.0% of respondents, consistent with the behaviour of broad-market index funds and large-cap ETFs. The 38.0% experiencing High or Very High volatility likely includes investors in sector-specific instruments and equity-heavy funds susceptible to market fluctuations.

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The 18.0% reporting medium volatility may reflect balanced or hybrid fund investors.

2) Return Consistency

TABLE XVI
DISTRIBUTION BY RETURN CONSISTENCY

Consistency Level	Frequency	Percentage (%)
Very Inconsistent	44	17.6
Inconsistent	59	23.6
Average	60	24.0
Consistent	45	18.0
Very Consistent	42	16.8
Total	250	100.0

Source: Primary data, n = 250

Only 34.8% of respondents report Consistent or Very Consistent returns, while 41.2% report Inconsistent or Very Inconsistent returns. This finding reflects the real-world challenge of maintaining consistent performance across market cycles — a central issue in the ETF vs. Mutual Fund debate. The 24.0% with average consistency likely includes investors in large-cap or broad-market funds that broadly follow market trends.

3) Risk-Adjusted Return Satisfaction (Testing H3)

TABLE XVII
DISTRIBUTION BY RISK-ADJUSTED RETURN SATISFACTION

Satisfaction Level	Frequency	Percentage (%)
Very Low	49	19.6
Low	56	22.4
Medium	50	20.0
High	41	16.4
Very High	54	21.6
Total	250	100.0

Source: Primary data, n = 250

TABLE XVIII
CROSS-TABULATION OF PRIMARY INVESTMENT VS. RISK-ADJUSTED RETURN SATISFACTION

Satisfaction Level	ETFs Only	MFs Only	Both	Total
Very Low	19 (23.2%)	16 (19.3%)	14 (16.5%)	49 (19.6%)
Low	15 (18.3%)	21 (25.3%)	20 (23.5%)	56 (22.4%)
Medium	17 (20.7%)	17 (20.5%)	16 (18.8%)	50 (20.0%)
High	13 (15.9%)	13 (15.7%)	15 (17.6%)	41 (16.4%)
Very High	18 (22.0%)	16 (19.3%)	20 (23.5%)	54 (21.6%)
Total	82 (100%)	83 (100%)	85 (100%)	250 (100%)

Source: Primary data, n = 250

H3 Interpretation: ETF investors show the highest proportion of Very High risk-adjusted return satisfaction (22.0%) and the highest Very Low satisfaction (23.2%), confirming a polarised, higher-variance risk-adjusted experience. Mutual Fund investors are more concentrated in the Low satisfaction band (25.3%). The 'Both' category shows the most balanced satisfaction profile.

The divergent distribution patterns confirm H3 — there is meaningful variation in risk-adjusted return satisfaction between ETF and Mutual Fund investors.

F. Benchmark Tracking Quality (Testing H4)

1) Benchmark Tracking Quality Distribution

TABLE XIX
DISTRIBUTION BY BENCHMARK TRACKING QUALITY

Tracking Quality	Frequency	Percentage (%)
Very Poor	64	25.6
Poor	45	18.0
Medium	40	16.0
Close	54	21.6
Very Close	47	18.8
Total	250	100.0

Source: Primary data, n = 250

TABLE XX
CROSS-TABULATION OF PRIMARY INVESTMENT VS. BENCHMARK TRACKING QUALITY

Tracking Quality	ETFs Only	MFs Only	Both	Total
Very Poor	25 (30.5%)	24 (28.9%)	15 (17.6%)	64 (25.6%)
Poor	15 (18.3%)	12 (14.5%)	18 (21.2%)	45 (18.0%)
Medium	14 (17.1%)	12 (14.5%)	14 (16.5%)	40 (16.0%)
Close	18 (22.0%)	14 (16.9%)	22 (25.9%)	54 (21.6%)
Very Close	10 (12.2%)	21 (25.3%)	16 (18.8%)	47 (18.8%)
Total	82 (100%)	83 (100%)	85 (100%)	250 (100%)

Source: Primary data, n = 250

H4 Interpretation: H4 is only partially supported. Mutual Fund investors report higher Very Close tracking (25.3%) compared to ETF-only investors (12.2%), while ETF investors show a higher concentration in Very Poor tracking (30.5%). This counter-intuitive finding is explained by the sample composition: the Mutual Fund sub-group is dominated by Index Fund investors (38.4%), which are precisely designed for close benchmark replication. ETF investors, who include sector and stock ETF holders, experience higher tracking deviation due to liquidity-driven mispricing and premium/discount dynamics inherent in exchange-traded instruments.

2) Tracking Error Distribution

TABLE XXI
DISTRIBUTION BY TRACKING ERROR LEVEL

Tracking Error	Frequency	Percentage (%)
Low	86	34.4
Moderate	79	31.6
High	85	34.0
Total	250	100.0

Source: Primary data, n = 250

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Tracking error is almost uniformly distributed across Low (34.4%), High (34.0%), and Moderate (31.6%) levels. This near-equal three-way split suggests that tracking performance varies widely across both ETFs and Mutual Funds, reinforcing the conclusion that individual fund quality and management efficiency are more important determinants of tracking accuracy than the broad product category.

VII. Results And Key Findings

A. Hypothesis Testing Summary

TABLE XXII
SUMMARY OF HYPOTHESIS TESTING RESULTS

Hyp.	Statement	Survey Evidence	Outcome
H1	Significant difference in returns between ETFs and MFs	ETF: 26.8% earn >15% vs MF: 24.1%; ETF more concentrated in 5%–10% band (29.3%)	Partially Supported
H2	Expense ratios lower for ETFs vs MFs	ETF: 56% in 1%–2%+ bands; MF: 32.5% in 0.5%–1% band. MFs report lower expense concentrations	Not Fully Supported
H3	Variation in risk-adjusted returns between ETFs and MFs	ETF: 22% Very High satisfaction; MF: 25.3% Low satisfaction — divergent distributions confirmed	Supported
H4	ETFs track benchmarks more closely than MFs	MF: 25.3% Very Close vs ETF: 12.2% Very Close; ETF: 30.5% Very Poor tracking	Partially Supported

Source: Derived from survey data analysis

B. Key Research Findings

Finding 1: Balanced and Hybrid Investment Preferences Investment preferences are near-equally distributed across ETF-only (32.8%), Mutual Fund-only (33.2%), and Both (34.0%) categories. This balance challenges the traditional framing of ETFs and Mutual Funds as competing products and suggests that an increasing proportion of sophisticated Indian investors view them as complementary rather than substitutes.

Finding 2: High Return Dispersion with No Dominant Return Band Returns are uniformly distributed across all four bands (~25% each), indicating extreme dispersion in investment outcomes. The 25.6% earning above-15% returns and the 24.8% earning below-5% returns coexist, highlighting the wide performance range across different fund types, sectors, and investment periods.

Finding 3: Critical Expense Ratio Awareness Gap 44.4% of respondents are unaware of their investment's expense ratio. This is arguably the most actionable finding of the study. Given that expense ratio directly reduces net returns on a compounding basis, this awareness gap has significant long-term wealth implications for a large segment of the Indian investor population.

Finding 4: ETFs Associated with Higher Volatility than MFs in This Sample ETF investors report considerably higher volatility (23.2% Very High) compared to Mutual Fund investors (13.3% Very High), contrary to the general perception that ETFs tracking broad market indices are less volatile. This is explained by the significant proportion of Stock ETFs and Sector ETFs in the ETF investor sub-group, which carry higher inherent volatility.

Finding 5: Index Fund Dominance within the Mutual Fund Category Among Mutual Fund investors, Index Funds account for 38.4% of preferences, reflecting a structural shift toward passive management within the MF category. This convergence between Index ETFs and Index Funds blurs the traditional performance and cost distinctions between the two product classes.

Finding 6: Benchmark Tracking Challenges Across Both Categories 25.6% of all respondents — the single largest tracking quality category — report Very Poor benchmark tracking, indicating widespread tracking challenges not confined to any single instrument type. The near-uniform distribution of tracking error (Low 34.4%, Moderate 31.6%, High 34.0%) further confirms that tracking quality is highly fund-specific.

VIII. Discussion

The findings of this study both align with and diverge from existing literature in meaningful ways, offering nuanced insights into the Indian investor experience with ETFs and Mutual Funds. The near-equal distribution of investment preferences across ETFs, Mutual Funds, and Both categories supports Agapova (2011)'s theoretical prediction that ETFs and index mutual funds serve as partial substitutes while attracting distinct investor segments. The 34.0% hybrid investors represent a growing class of financially sophisticated individuals who leverage both instruments for their complementary strengths — ETF intraday liquidity and MF SIP convenience.

The expense ratio findings partially contradict the widely cited advantage of ETFs (Elton et al., 2004; Sharpe, 1991). The higher expense ratio concentration among ETF investors (56% in 1%–2%+ bands) compared to Mutual Fund investors (32.5% in 0.5%–1% band) reflects a composition effect: the ETF sub-group disproportionately includes sector and stock ETF investors who face higher costs than pure Index ETF holders.

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This aligns with Sehgal and Gupta (2018)'s caveat that liquidity constraints and product-type heterogeneity moderate ETF cost advantages in India.

The volatility findings are consistent with Singh and Kaur (2020), who identified elevated volatility in sectoral ETFs as a significant risk factor for conservative investors. The higher volatility experienced by ETF investors in this study is structurally explained by their greater exposure to stock and sector ETFs versus the Index Fund-heavy Mutual Fund sub-group.

The benchmark tracking results present the most counter-intuitive finding. Mutual Fund investors report better tracking outcomes than ETF investors, which runs contrary to the widespread assumption that ETFs are inherently superior benchmark trackers (Sehgal & Gupta, 2018). This is reconciled by the dominance of Index Funds among MF investors — products specifically engineered for benchmark replication — and by the intraday premium/discount dynamics that can cause ETFs to temporarily deviate from their underlying indices (Madhavan & Sobczyk, 2016).

The significant expense ratio awareness gap (44.4% unaware) is consistent with findings from the broader Indian financial literacy literature, which consistently identifies cost awareness as a key deficit in retail investor knowledge (Bansal & Sharma, 2021). This has direct policy implications for SEBI and AMFI's investor education programs. Taken together, the findings reinforce Bansal and Sharma (2021)'s conclusion that neither ETFs nor Mutual Funds universally dominate across all performance dimensions. Product sub-type selection — stock vs. index vs. sector within both categories — is a more powerful determinant of performance outcomes than the broad ETF vs. MF category distinction.

IX. Conclusion

This study provides a comprehensive primary-survey-based comparative analysis of ETF and Mutual Fund investor experiences in India, drawing on data from 250 active investors across retail and institutional categories. The research addresses a critical gap in the existing literature by capturing investor-reported experiences across seven key dimensions: demographics, investment preferences, returns, expenses, risk, risk-adjusted returns, and benchmark tracking. The study finds that investment preferences are balanced across ETF-only, Mutual Fund-only, and hybrid investors, reflecting growing sophistication in the Indian investor community. Return distributions are uniform across all performance bands, indicating high return dispersion driven more by fund sub-type selection than by the broad ETF vs. MF distinction.

The expense ratio awareness gap (44.4% unaware) emerges as the most critical and actionable finding, with direct implications for long-term wealth creation.

Hypothesis testing reveals partial empirical support for H1 (return differences), H3 (risk-adjusted return variation), and partial support for H4 (benchmark tracking), while H2 (expense ratio advantage for ETFs) is not fully supported due to the composition effect of sector and stock ETFs within the ETF investor sub-group. These nuanced outcomes reinforce the academic consensus that ETF and Mutual Fund performance cannot be evaluated in isolation from product sub-type, investor profile, and market conditions.

The central conclusion of this research is that the ETF vs. Mutual Fund choice is not a binary one. Both instruments serve distinct investor needs and perform differently across sub-categories. For Indian investors, the decisive factors are product sub-type selection, cost awareness, and alignment with investment horizon — not the broad instrument category alone.

X. Recommendations

A. For Investors

- Investors should prioritize cost-efficiency by comparing expense ratios within both ETF and Index Fund categories, as even marginal differences compound significantly over long investment horizons.
- Retail investors with limited financial literacy should begin with broad-market Index ETFs or Index Funds, which offer the most predictable tracking quality at the lowest cost.
- Investors considering sector ETFs or Stock ETFs should account for the higher volatility and potential tracking deviations identified in this study.
- The growing hybrid investment approach (investing in both ETFs and MFs) appears to deliver balanced outcomes across return, risk, and cost dimensions and merits consideration from a portfolio diversification perspective.

B. For Fund Houses and Financial Advisors

- Fund houses should invest in improving tracking precision for sector ETFs, particularly by addressing liquidity constraints that cause intraday premium/discount deviations from NAV.
- Financial advisors should explicitly educate clients about expense ratios at the point of investment, given the 44.4% awareness gap identified in this study.
- Fee-based advisory models that are agnostic to instrument type (ETF vs. MF) should be encouraged to enable unbiased product recommendations.

C. For Regulators (SEBI and AMFI)

- Expense ratio disclosure requirements should be strengthened to ensure that all investors receive clear, comparable cost information at the point of sale for both ETFs and Mutual Funds.
- SEBI's investor education initiatives should specifically target expense ratio awareness, given that 44.4% of active investors in this study are unaware of this critical cost parameter.
- Mandatory tracking error disclosure in standardized formats would enable investors to make more informed benchmark-tracking comparisons across fund categories.

XI. Limitations Of The Study

- The study relies entirely on self-reported data, which is subject to recall bias and social desirability bias — respondents may over-report returns or under-report expense awareness to appear more financially sophisticated.
- The sample of 250 respondents, while adequate for cross-sectional survey research, may not fully represent the entire population of Indian ETF and Mutual Fund investors across all geographies, income levels, and fund categories.
- The study does not distinguish between specific funds within each sub-type category (e.g., Nifty 50 ETF vs. Bank Nifty ETF within Index ETF), which limits granularity in performance comparisons.
- Returns are self-reported and represent investor perceptions rather than verified NAV-based fund performance, introducing measurement error that limits the precision of return comparisons.
- The cross-sectional nature of the study captures a single point in time and cannot account for changes in performance, costs, or investor behaviour across different market cycles.
- The study does not control for portfolio size, investment horizon, or tax treatment, which are significant moderating variables in the ETF vs. Mutual Fund performance comparison.

XII. Future Scope

- A longitudinal study tracking the same investor cohort over multiple market cycles (bull, bear, and sideways) would provide more robust evidence on the temporal stability of ETF vs. Mutual Fund performance differentials.
- Future research should triangulate self-reported investor data with verified fund performance data from AMFI and NSE to validate the accuracy of investor perceptions identified in this study.
- Structural Equation Modelling (SEM) could be applied to the dataset to model the causal relationships among expense ratio awareness, investment preference, risk tolerance, and investment satisfaction — building on the methodological approach of Lim et al. (2015) adapted for the investment domain.
- A sector-level sub-group analysis comparing Banking ETFs vs. Banking Sector Funds, IT ETFs vs. IT Mutual Funds, and so on, would provide finer-grained comparative insights aligned with Objective 1 of this study.
- Cross-country comparative research examining ETF vs. Mutual Fund investor experiences across India, China, and Southeast Asian markets would provide a broader emerging-market perspective on passive vs. active investment performance.
- Future studies should incorporate ESG (Environmental, Social, and Governance) ETFs and thematic Mutual Funds as new product categories, given their rapidly growing AUM in the Indian market post-2022.

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