

# A Comparative Study of Index Funds and Actively Managed Mutual Funds

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**Abstract:** *MUTUAL FUNDS - Mutual funds are investment vehicles that pool money from multiple investors to purchase a diversified portfolio of stocks, bonds, or other securities managed by professionals. They offer individuals access to managed, diversified portfolios aimed at maximizing returns based on risk tolerance, with options like equity, debt, and hybrid funds. A mutual fund is an SEC-registered open-end investment company that pools money from many investors. It invests the money in stocks, bonds, short-term moneymarket instruments, other securities or assets, or some combination of these investment. A basic three- fund portfolio includes a US equity index fund, an international-equity index fund, and a total bond market index fund. It can be an exchange-traded fund portfolio or a traditional index portfolio. Simplicity is a major selling point for three-fund portfolios. INDEX FUNDS - Index funds are passive mutual funds or ETFs that replicate the performance of a specific market benchmark, such as the S&P 500 or Nifty 50, by holding the same stocks or bonds in similar proportions. They offer low-cost, diversified, and transparent investment options, aiming to match market returns rather than outperform them, making them popular for long-term investors. An index fund is a type of mutual fund or exchange-traded fund (ETF) designed to track or mimic a specific market benchmark, such as the S&P 500 or Nifty 50. They use a passive management strategy, investing in the same stocks or bonds as the index to achieve similar returns. Key benefits include low costs, reduced risk through diversification, and consistent performance, making them ideal for long-term investors*

**Keywords:** Mutual funds

## I. INTRODUCTION

Index funds (passive) and actively managed mutual funds differ primarily in strategy and cost. Index funds aim to replicate a benchmark index (e.g., Nifty 50) at a low cost (expense ratio), while active funds rely on fund managers to outperform the market, (often) incurring higher fees .

Index funds frequently outperform active funds in large-cap segments, offering consistent, lower-risk, market-average returns.

### Key Differences and Insights

- **Performance:** In recent years, index funds have consistently delivered higher returns than many actively managed funds in the large-cap segment.
- **Costs:** Index funds are generally more cost-efficient because they do not require expensive research teams and have low turnover.
- **Suitability:** Index funds are considered a simple, low-cost option for beginners or long-term investors aiming for market-matching returns. Active funds may offer better opportunities in mid-cap and small-cap segments, where active managers can identify undervalued stocks.
- **Risk:** While index funds face the risk of market downturns, actively managed funds face the risk of human error in stock selection (underperformance).



• **Flexibility:** Active funds have the freedom to shift away from the benchmark during a downturn, whereas index funds must remain invested according to the index composition.

Both options can play a role in a portfolio; a popular strategy for investors is to use index funds for large-cap exposure while utilizing active funds for specialized sectors or smaller company investments. While mutual funds can be actively managed or passively managed, index funds are a category of passively managed mutual funds. This article compares key aspects of mutual funds and index funds to help investors understand these investment categories better. Investment funds are broadly classified into passive (index funds) and active funds.

- Index Funds aim to replicate the performance of a market index (e.g., Nifty 50, Sensex).
- Actively Managed Funds aim to outperform the market through expert fund management and strategic decision-making. Index Funds has no active stock selection and on the other hand Actively Managed Mutual Funds the Stocks are actively selected by an investor or person handling the investment of a investor . The Mutual Funds are selected by Investor on the basis of long term and the performance of the stock in the last few years and it also done after a brief calculation and study of the funds . The financial market offers a wide variety of investment options to individuals and institutions. Among these, mutual funds have become one of the most popular investment vehicles due to their diversification, professional management, and accessibility. Mutual funds can broadly be categorized into two types based on their management style:

#### **Index Funds (Passive Funds) and Actively Managed Funds.**

Index funds aim to replicate the performance of a specific market index such as the Nifty 50 or BSE Sensex. On the other hand, actively managed funds attempt to outperform the market by making strategic investment decisions based on research and analysis.

This study aims to compare these two types of funds in terms of cost, risk, return, management style, and suitability for investors.

## **II. RESEARCH METHODOLOGY**

### **Objective of the study**

The primary aim of this study is to conduct a comprehensive comparison between index funds and actively managed funds. The study aims to develop a clear understanding of the fundamental concepts of index funds and actively managed funds. It includes examining how index funds replicate benchmarks like the Nifty 50 and BSE Sensex, and how actively managed funds rely on professional decision-making and market research. Another objective is to analyze the difference in investment approaches:

- Passive strategy followed by index funds
- Active strategy involving stock selection and market timing

This helps in understanding how each strategy impacts overall performance. The study seeks to examine and compare the cost structures of both types of funds, including Expenses Ratio, Management Fees Transaction Costs. This objective highlights how costs influence net returns over time.

### **Significance of the Study**

A comparative study between index funds and actively managed mutual funds is crucial for identifying superior long-term returns, as index funds offer lower costs (often ~0.06% vs. 2.23% for active), passive management, and transparent, consistent benchmark replication. It empowers investors to evaluate risk, tax efficiency, and the likelihood of beating the market.

- **Cost Analysis:** Index funds consistently provide lower total expense ratios (TER) because they do not require extensive research teams, whereas active funds charge higher fees to pay for active stock selection.
- **Performance Comparison:** Historical data suggests many active fund managers fail to consistently outperform their benchmarks over the long term, making passive index funds a stronger choice for many investors.



- **Risk and Strategy:** Active funds offer potential to beat the market but carry higher managerial risk, whereas index funds replicate market performance, reducing the risk of human error.
- **Tax Efficiency:** Index funds usually have lower turnover, resulting in fewer capital gains distributions and higher tax efficiency for investors.
- **Portfolio Suitability:** Studies show while active management can work in specific sectors (e.g., small/mid-cap), index funds are often better for large-cap exposure, guiding better asset allocation. Ultimately, this study helps investors determine if the potential for alpha (higher returns) from active managers justifies the higher expense ratios, or if lower-cost, passive tracking is better for their financial goals.

**\*Statement Of the Problem\***

The core problem in the comparative study between index funds and actively managed mutual funds centers on whether the higher management fees and operational costs of active management are justified by their ability to generate alpha (outperform the benchmark) over long-term market cycles.

While active managers aim to beat the market, extensive research and evidence suggest that a majority of them underperform their benchmarks after accounting for fees, especially in efficient large-cap markets.

Active funds charge higher Total Expense Ratios (TERs) (often 0.50% to 2.00%+) compared to index funds (0.03% to 0.30%). The research problem is to determine if this "active fee" creates a consistent drag on returns that makes it difficult for them to beat low-cost passive alternatives. The challenge lies in distinguishing between managers who possess genuine skill to generate superior returns over a full market cycle and those who simply achieve short-term outperformance due to luck or favorable market conditions. In well-researched, efficient markets (like large-cap stocks), active managers struggle to find mispriced stocks, making index funds more attractive. The problem is to evaluate whether active management still offers superior value in less efficient segments, such as mid-cap or small-cap, where stock selection can create greater alpha. Index funds deal with "tracking error" (matching the benchmark), while active funds suffer from "manager risk" (underperforming due to poor decisions). The comparison involves evaluating which risk is more detrimental to long-term wealth creation. The study must address the "investor experience gap"—investors often switch out of underperforming active funds at the wrong time, converting temporary underperformance into permanent losses, whereas index funds encourage a "buy-and-hold" strategy. The fundamental problem is to evaluate whether active management provides sufficient risk-adjusted value to justify its higher costs, or if investors are better served by the low-cost, consistent, and transparent nature of index funds over the long term, considering that empirical data shows a majority of active funds underperform their benchmarks over time.

**\*SCOPE OF THE STUDY\***

A comparative study between index funds (passive) and actively managed mutual funds focuses on evaluating which approach provides better value, risk-adjusted returns, and cost efficiency for investors over specific time horizons. The scope of such a study includes performance analysis, cost structures, risk metrics, and tax efficiency, typically comparing a portfolio of top-performing active funds against a benchmark index. The scope of mutual funds covers pooling capital from diverse investors to manage portfolios of stocks, bonds, and securities, offering professional management, diversification, and high liquidity. Its scope includes catering to various financial goals (growth, income), expanding into rural/semiurban markets, and integrating with retirement plans (401k, IRA). The scope of financial analysis involves assessing a company's liquidity, profitability, solvency, and efficiency by examining financial statements, ratios, and trends. It supports investment decisions, credit evaluation, strategic planning, and risk management for internal managers, investors, and creditors to evaluate performance and forecast future growth.



**\*LIMITATIONS OF THE STUDY\***

Comparative studies between index funds and actively managed funds are limited by differing fee structures, tracking errors in passive funds, and the inability of past performance to guarantee future results. While active funds aim to outperform, they often underperform over time due to higher costs. Studies often ignore tax inefficiencies in active funds and the specific, narrow sector advantages active managers might hold.

**\*HYPOTHESIS OF THE STUDY\***

A comparative study between index funds and actively managed mutual funds generally hypothesizes that index funds deliver higher net returns over the long term due to lower costs, while active funds struggle to consistently beat the market, particularly in efficient markets, despite potential for higher returns in smaller, less efficient sectors.

**Key Hypotheses of the Study**

• **Performance Hypothesis** : Index funds consistently outperform actively managed funds in the long term, particularly in large-cap segments, when accounting for higher expense ratios of active management.

**Cost Hypothesis** : Index funds have significantly lower expense ratios and transaction costs (due to lower turnover) compared to actively managed funds, directly impacting net returns.

• **Active Management Hypothesis** : Active fund managers underperform their benchmark index after fees and taxes, with a growing percentage failing to provide "alpha" (excess return) over time

**Market Efficiency Hypothesis** : Active funds in inefficient markets (e.g., small-cap or mid-cap) are more likely to outperform their benchmark, whereas active funds in efficient markets (e.g., large-cap) are less likely to do so.

• **Risk Hypothesis** : While actively managed funds aim to minimize risks, index funds often offer better risk-adjusted returns (e.g., higher Sharpe/Sortino ratios) because they avoid the potential errors of human decision-making and provide broader diversification.

• **AUM Growth Hypothesis** : Large AUM (Assets Under Management) in active funds hinders their ability to outperform the market, making it harder for managers to generate alpha .

**\*DATA ANALYSIS\***

Data Analysis helps to Data analysis reveals that index funds consistently outperform a majority of actively managed funds, especially in large-cap segments, due to lower expense ratios (approx. and passive tracking, making them a superior long-term choice. While active funds aim to beat bench marks through research and data .

**Key Comparative Data Points:**

• **Performance:** The percentage of active funds beating the Nifty 100 has dropped from 70–73% (2015-16) to around 15% (2020).

• **Costs:** Index funds (direct plans) have significantly lower expenses compared to actively managed fund .

• **Efficiency:** Active funds often struggle to outperform after accounting for higher management fees and trading expenses.

• **Risk-Adjusted Returns:** While active funds try to manage volatility, index funds provide broad market exposure, reducing idiosyncratic risks.

**Key Findings:**

• **Market Efficiency:** As markets become more efficient, active fund managers find it increasingly hard to generate alpha.

• **Large Cap Dominance:** Index funds are generally superior in large-cap spaces, whereas some active management may still offer value in less efficient, smaller-cap sectors.



• **Investor Goal:** Index funds are suitable for low-cost, consistent returns, whereas active funds are for investors seeking potential market outperformance despite higher risks and costs.

For in-depth analysis, tools such as a Mutual Fund Analysis Tool can be used to compare historical returns, expense ratios, and risk metrics.

This study presents a comparative analysis of actively managed mutual funds and index (passive) funds within the Indian financial landscape. The research evaluates ten selected funds—five active and five passive—spanning a five-year period (January 2020 to December 2024). The objective was to assess these funds across key parameters including compound annual growth rate (CAGR), standard deviation, Sharpe Ratio, Alpha, Beta, expense ratio, and tracking error. The analysis indicates that passive funds, owing to their lower costs and consistent benchmark tracking, offer better risk-adjusted returns for long-term investors.

While select active funds have shown potential to generate alpha, their inconsistent performance and higher expense ratios undermine their reliability. The findings advocate for a core-satellite approach, where passive funds form the investment core, supplemented by high-conviction active funds. Keywords: Mutual fund performance, index funds, active funds, risk-adjusted returns, Indian equity market, Sharpe ratio, alpha generation

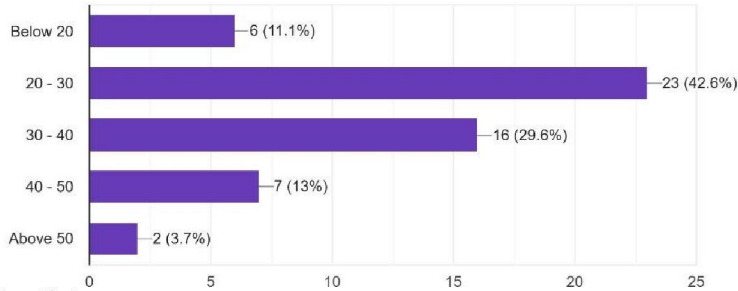
**\*QUESTIONNAIRE\***

- 1 - A Comparative Study Of Index Funds vs Actively Managed Mutual Funds ?
- 2 - Occupation of the person filling the form ?
- 3 - Monthly Income of the person ?
- 4 - Do You Invest in Mutual Funds ?
- 5 - How Long You Have Been Investing?
- 6 - How do you Invest
- 7 - Your main Investment goal is?
- 8 - Are you Aware of Index Funds?
- 9 - Are you aware of Actively Managed Mutual Funds?
- 10 - Which type of fund do you currently invest in ?
- 11 - Which type of fund do you prefer ?
- 12 - Why do you prefer this type of fund ?
- 13 - What level of Risk are you Comfortable with ?
- 14 - Which Fund do you think gives better returns ?
- 15 - Do you consider expenses ratio before investing ?
- 16 - In your opinion, Actively Managed Funds charge higher fees than Index Funds ?
- 17 - Are you satisfied with your Mutual Funds Returns?
- 18 - Have you ever switched from one fund to another ?
- 19 - What Is the main Reason for Switching ?
- 20 - According To You , Which is better for Long-Term Investors and Why ?
- 21 - Any Suggestions for new Investors?

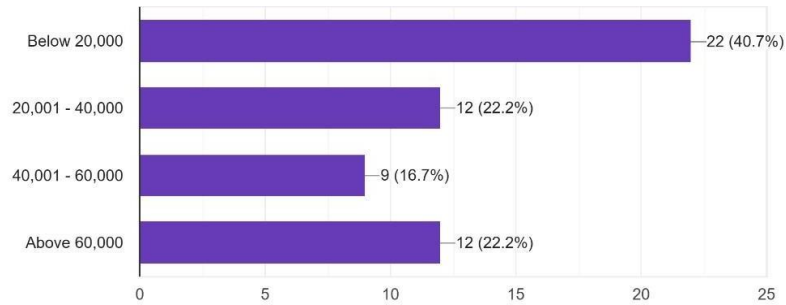


**\*GRAPHS OF THE QUESTIONNAIRE\***

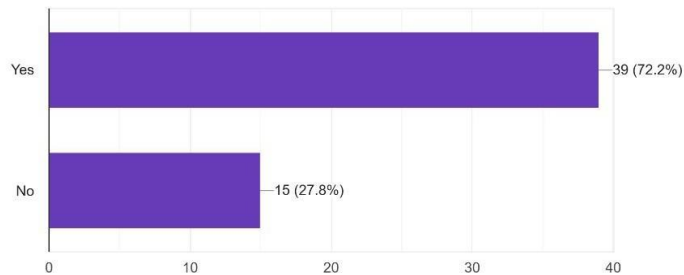
**1 - Age Group**  
54 responses



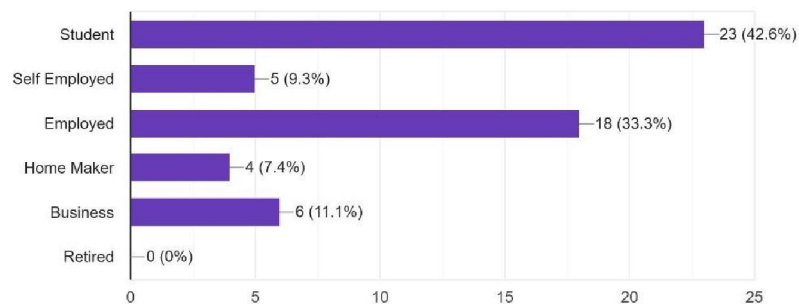
**3 - Monthly Income**  
54 responses



**4 - Do You Invest in Mutual Funds ?**  
54 responses

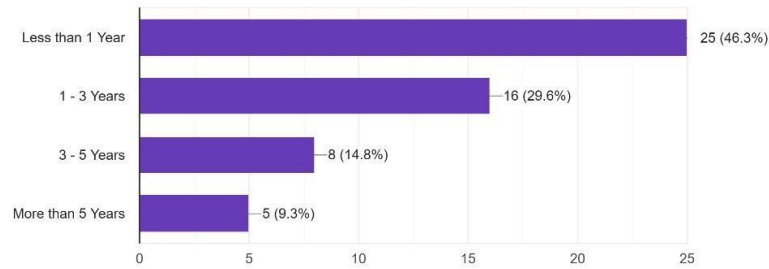


**2 - Occupation**  
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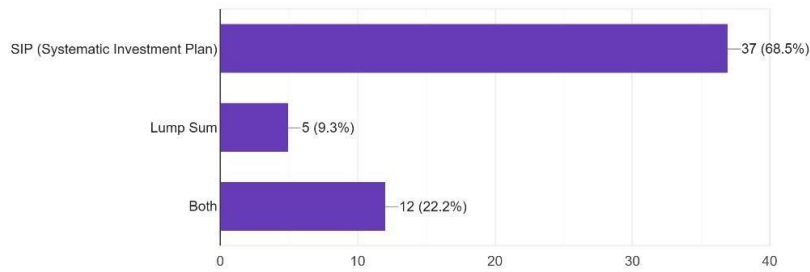
**5 - How Long You Have Been Investing?**

54 responses



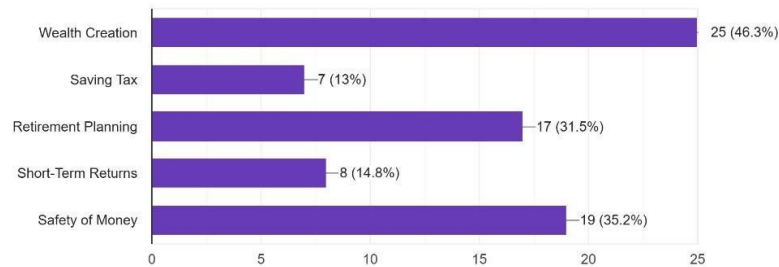
**6 - How do you Invest**

54 responses



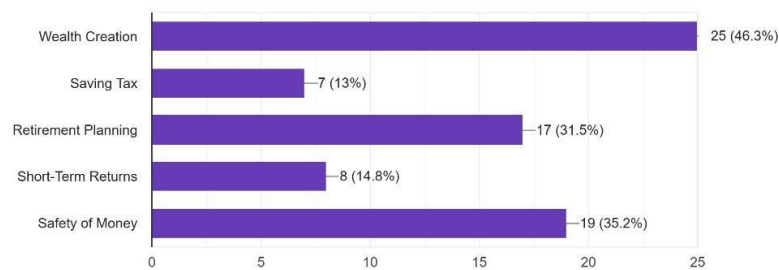
**7 - Your main Investment goal is:**

54 responses



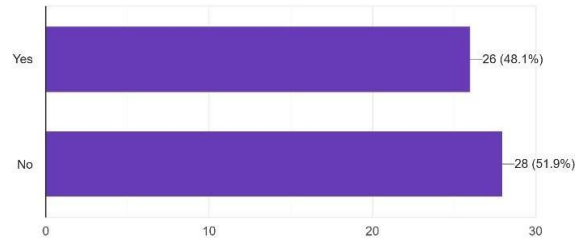
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54 responses



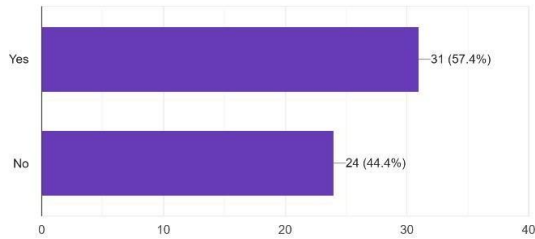
8 - Are you Aware of Index Funds?

54 responses



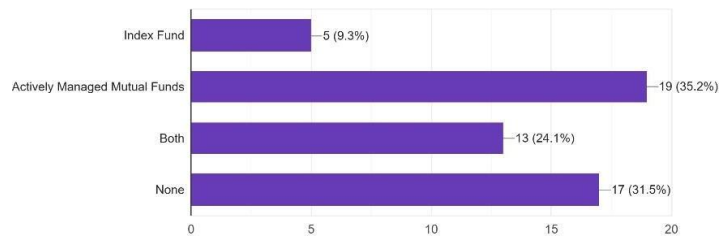
9 - Are you aware of Actively Managed Mutual Funds?

54 responses



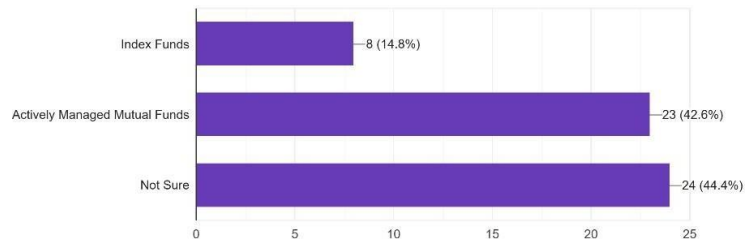
10 - Which type of fund do you currently invest in ?

54 responses



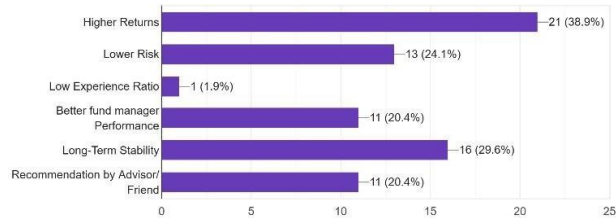
11 - Which type of fund do you prefer ?

54 responses

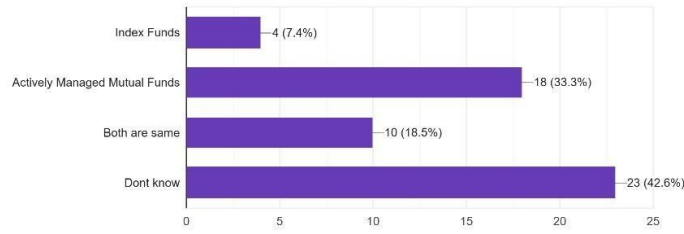


12 - Why do you prefer this type of fund ?

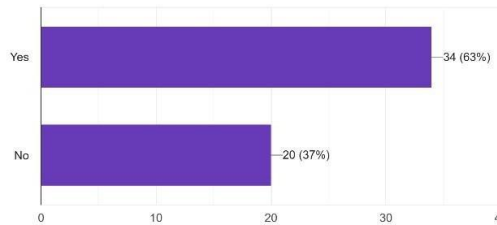
54 responses



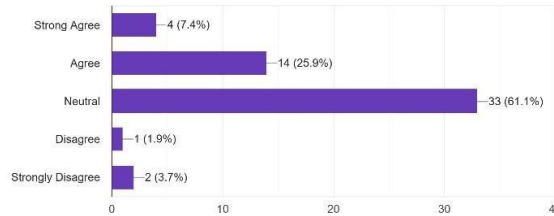
14 - Which Fund do you think gives better returns ?  
54 responses



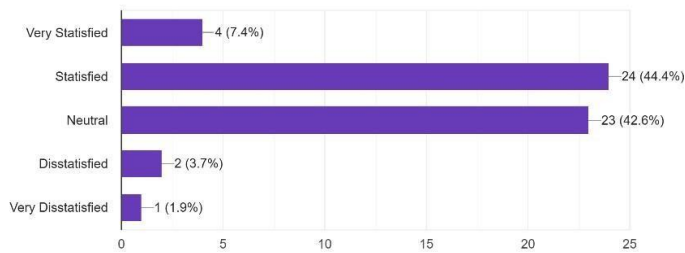
15 - Do you consider expenses ratio before investing ?  
54 responses



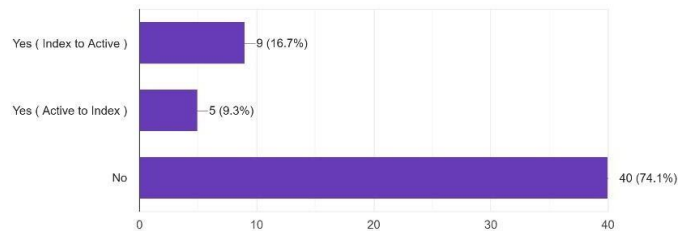
16 - In your opinion, Actively Managed Funds charge higher fees than Index Funds  
54 responses



17 - Are you satisfied with your Mutual Funds Returns?  
54 responses

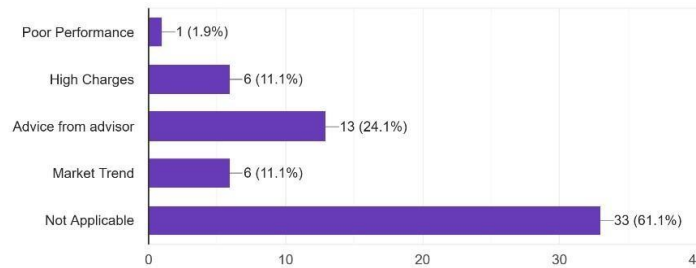


18 - Have you ever switched from one fund to another ?  
54 responses



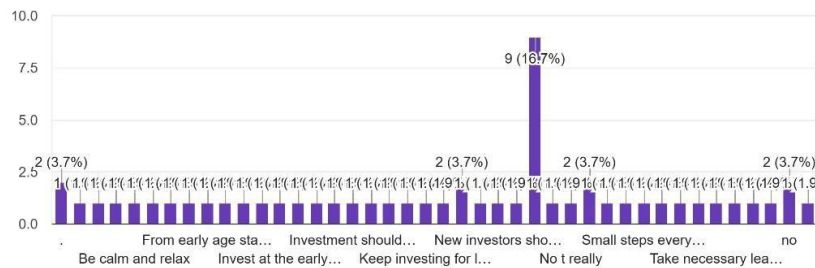
19 - What Is the main Reason for Switching ?

54 responses



21 - Any Suggestions for new Investors?

54 responses



**III. FINDINGS**

From the above Graphs and Data Analysis it is to be found that not more are aware of the Index Funds Than the Mutual Funds . The above Research and Data Analysis Studies comparing index funds and actively managed funds show that index funds often outperform active funds over long periods due to lower costs, tracking a market benchmark directly. Active funds offer potential outperformance through manager selection but typically have higher fees and higher portfolio turnover, increasing overall investor expense. For long-term investors, index funds often serve as a better choice for large-cap exposure to minimize costs. Active management might be suitable for investors looking to beat the market in inefficient sectors, provided the funds have a consistent track record.

**IV. CONCLUSION**

Index funds generally offer lower costs and consistent market returns, while actively managed funds strive to outperform benchmarks through professional research. While active management may succeed in specific sectors, studies indicate index funds frequently deliver superior long-term performance due to lower expense ratios and reduced tax liability. In conclusion, for many investors, particularly those focusing on large-cap equity, a shift towards low-cost passive index funds is often more beneficial, while active funds may still offer value for specific, well-researched opportunities.

**V. RECOMMENDATION**

A comparative study between index funds and actively managed mutual funds indicates that index funds are superior for low-cost, long-term, large-cap exposure due to lower fees (0.03%–0.05% vs. 0.50%–0.75% for active). Active management is best suited for small/mid-cap segments, as fund managers may potentially outperform benchmarks, despite higher fees.



**Key Recommendations for Investors:**

- For Long-Term/Beginners: Invest in index funds (e.g., S&P 500, Nifty 50) for lower expenses, broad diversification, and consistent tracking of market average returns.
- For Potential Outperformance: Consider actively managed funds for potential alpha, particularly in less efficient small-cap and mid-cap markets.
- Cost Factor: Actively managed funds often have higher management fees, while index funds offer a significant cost advantage.
- Performance: Historical data suggests index funds frequently perform as well or better than active funds over long periods

**SUGGESTION**

A comparative study of index funds and actively managed mutual funds should focus on performance, costs, risk, and portfolio turnover. Research suggests index funds offer lower fees and lower risk, while active funds, led by managers, aim to outperform the market, often incurring higher fees and turnover. Active funds generally aim for alpha (outperformance) but face higher fees, while index funds provide market-level returns with lower costs and risk. According to the research the suggestion is to look after the actively managed mutual funds instead of index funds for less risk and organized returns over a period of time.

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3. AI TOOL
4. SELF EXPLANATION

