

Active vs Passive Investing: A Study on Equity Mutual Funds and Index Fund

Author – Ms. Sanika Shinde

Co-Authors: **Mohammad Sahil Raza, Armaan Shaikh, Dhiraj Poojari**

Pillai College of Arts, Commerce & Science (Autonomous)

ABSTRACT: Investment strategies play a crucial role in determining the risk and return profile of investors in financial markets. Among the various investment approaches, active and passive investing are the most commonly used strategies in the mutual fund industry. Active investing involves continuous market analysis and active decision-making by fund managers with the objective of outperforming the benchmark index. In contrast, passive investing focuses on replicating the performance of a specific market index through instruments such as index funds and exchange traded funds (ETFs). This study aims to analyze the concept, characteristics, and differences between active and passive investment strategies, particularly in the context of equity mutual funds and index funds. The research is based on secondary data collected from research papers, financial reports, journals, and various online sources. The findings of the study indicate that active investing offers the possibility of higher returns through professional management, whereas passive investing provides advantages such as lower costs, diversification, and long-term stability. The study concludes that the suitability of each strategy depends on investors' financial goals, risk tolerance, and investment horizon.

Keywords: *Active Investing, Passive Investing, Mutual Funds, Index Funds, Equity Market, Investment Strategy, Portfolio Management.*

INTRODUCTION: Investment plays an important role in wealth creation and financial planning. In recent years, mutual funds have become one of the most popular investment options among investors due to professional management, diversification, and accessibility. Within the mutual fund industry, two major investment strategies are widely followed: active investing and passive investing.

Active investing involves continuous research and decision-making by fund managers in order to outperform the market benchmark. On the other hand, passive investing aims to replicate the performance of a market index with minimal trading and lower costs. With the growing popularity of index funds and exchange-traded funds, passive investing has gained significant attention among investors. This study focuses on understanding the concept of active and passive investing and analyzing their role in equity mutual funds and index funds.

REVIEW OF LITERATURE: The literature indicates that while actively managed mutual funds aim to outperform the market, most studies suggest that passive investment strategies often provide more consistent and cost-efficient returns for investors.

Author(s) & Year	Key Findings/Focus	Relevance to Study	Identified Research Gap
Jensen (1968)	Introduced Jensen's Alpha to measure risk-adjusted performance of mutual funds and examined whether active managers can outperform the market.	Provides a foundation for evaluating the performance of actively managed mutual funds compared with market benchmarks..	Consistency Gap: Most funds failed to generate consistent excess returns after adjusting for risk.
Sharpe (1991)	Explained the arithmetic of active management and demonstrated how management fees and transaction costs reduce investor returns.	Supports the argument that cost efficiency plays a major role in investment performance.	Cost Efficiency Gap: Active funds often fail to outperform passive funds after accounting for fees and expenses..
Fama & French (2010)	Analyzed whether active fund managers outperform due to skill or luck using risk-adjusted performance measures.	Highlights the importance of evaluating mutual fund performance through long-term statistical analysis.	Skill vs Luck Gap: Difficulty in identifying genuinely skilled managers among active funds.
Elton, Gruber & Blake (1996)	Compared the risk-adjusted performance of active and passive mutual funds across different market	Helps understand the trade-off between risk, return, and cost	Performance Stability Gap: Active funds show inconsistent and unpredictable outperformance.

	conditions.	in mutual fund investments.	
Bhattacharya & Banerjee (2018)	Studied mutual fund performance and investor behavior in India, noting a growing preference for passive funds due to simplicity and low costs.	Provides an Indian market perspective on investor preferences and mutual fund selection..	Investor Awareness Gap: Limited knowledge among retail investors about risk, cost, and fund performance.

RESEARCH OBJECTIVES

- To study the concept and structure of active and passive investing
- To understand and analyse the performance of active equity mutual funds vs. index funds
- To identify the existing gaps between active and passive investing strategies.
- To examine the major challenges faced by active and passive investors and fund managers
- To study the future perspective and emerging trends in active and passive investing in India.

RESEARCH METHODOLOGY:

This study adopts a descriptive research design to examine investors' awareness, preferences, and perceptions regarding active and passive investing in equity mutual funds and index funds.

- **Sample Size:** Data was collected from **226 respondents**, including retail investors, students, and professionals who have knowledge or experience in equity investments.
- **Sampling Technique:** The study uses **stratified random sampling** to ensure representation across different age groups, gender, investment experience, and geographical regions.
- **Data Collection:** Primary data was collected through a **structured questionnaire** focusing on investor awareness, risk perception, cost considerations, and preferences between active and passive investment strategies. Secondary data was obtained from sources such as **AMFI, SEBI reports, fund house websites, journals, and research papers.**

LIMITATIONS OF THE STUDY

- The study focuses only on equity mutual funds in India, and does not include other investment instruments such as debt funds, hybrid funds, or international investments.
- The findings are based on historical performance data, which may not accurately predict future returns because financial markets are highly dynamic and influenced by various economic factors.
- The sample size of 226 respondents may not fully represent the entire investor population, therefore the results may not be generalized to all investors in the Indian financial market.

HYPOTHESIS:

Based on the identified gaps, two hypotheses are framed:

Hypothesis 1 (H1): "There is a significant perception among investors that passive funds are more cost-efficient than active funds."

Hypothesis 2 (H2): "There is a significant perception among investors that long-term investors should prefer passive funds."

DATA ANALYSIS AND INTERPRETATION

Table 1: Demographic Profile of Respondents

This table categorizes the 226 participants by Age and Gender to establish the survey's foundation.

Category	Classification	Frequency (f)	Percentage (%)
Age	Below 20	53	23.5%
	20-25	43	19.0%
	26-30	47	20.8%
	30-40	43	19.0%
	Above 40	40	17.7%
Gender	Male	127	56.2%
	Female	99	43.8%

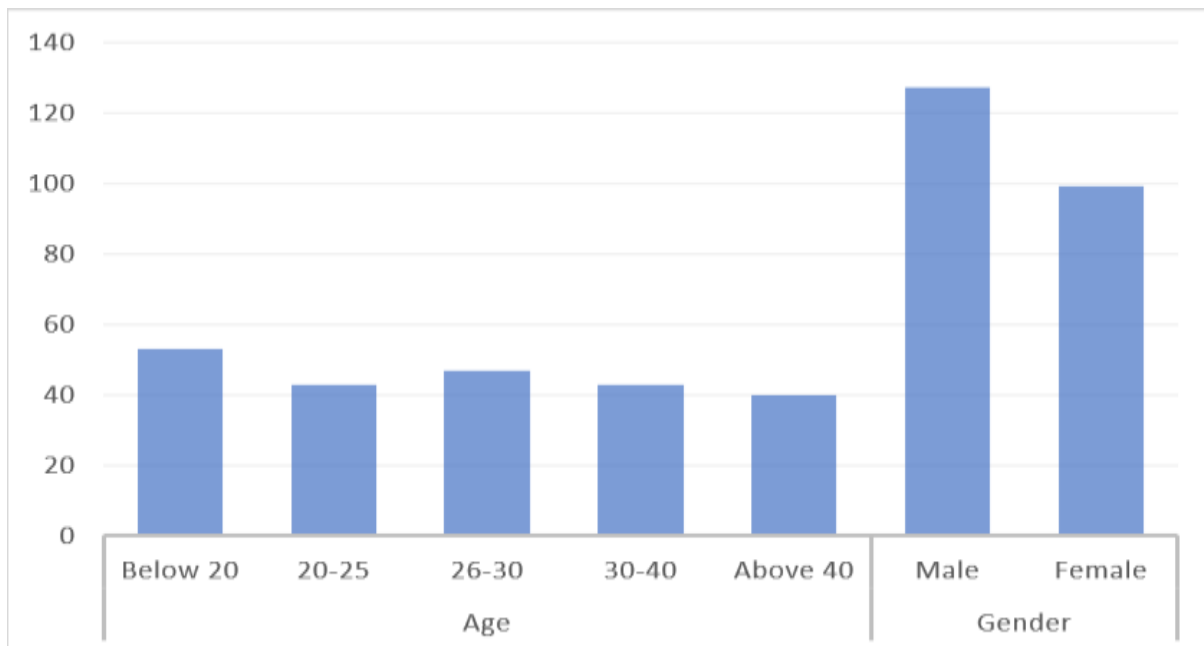
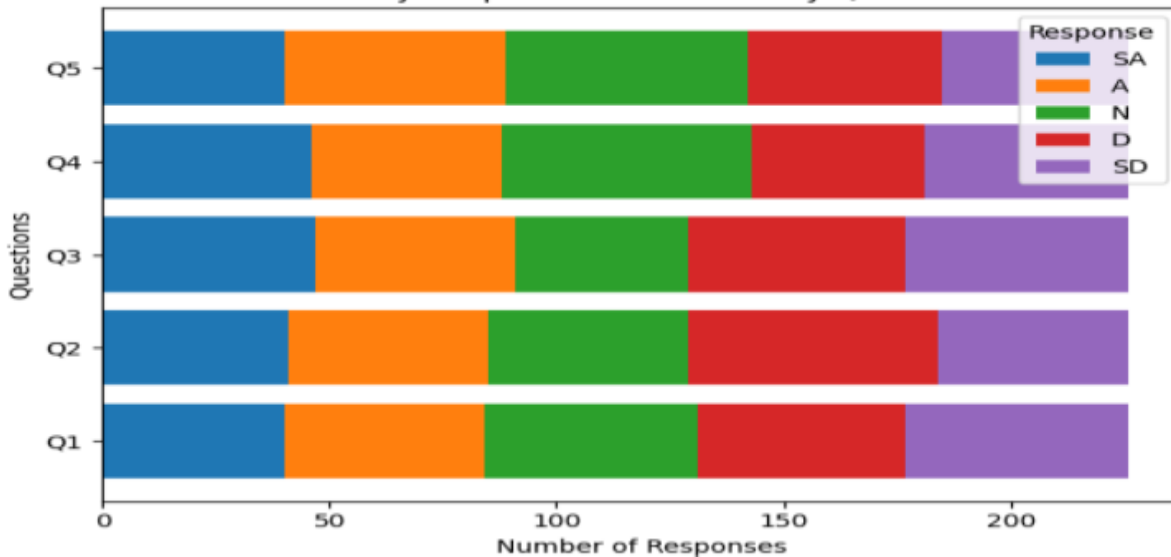


Table 2: Question-Wise Analysis (Frequency Distribution)

This table provides the raw data for your core research findings based on the 5-point Likert scale.

Question Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Total (N)	Mean Score
Q1 Active funds perform better during market volatility.	40	44	47	46	49	226	2.91
Q2: Passive funds are more cost-efficient than active funds.	41	44	44	55	42	226	2.94
Q3: Market efficiency makes it difficult for active managers to outperform.	47	44	38	48	49	226	2.96
Q4: Long-term investors should prefer passive funds.	46	42	55	38	45	226	3.03
Q5 Low-cost investing is more important than trying to beat the market.	40	49	53	43	41	226	3.02

Survey Response Distribution by Question



HYPOTHESIS TESTING:

Calculation for Hypothesis 1 (H1)

Statement: "There is a significant perception among investors that passive funds are more cost-efficient than active funds."

A. Weighted Mean Calculation

Scale	Weight (W)	Frequency (f)	Total Score (f×W)
Strongly Disagree	1	42	42
Disagree	2	55	110
Neutral	3	44	132
Agree	4	44	176
Strongly Agree	5	41	205
Total		226	665

Mean Score Calculation

Mean = $\frac{665}{226}$

$$\frac{665}{226}$$

Mean = 2.94

B. Chi-Square Test for (H1)

Null Hypothesis (H₀): Responses are evenly distributed (No significant perception that passive funds are more cost-efficient).

Expected value:

$E = 182 / 2 = 91$

Category	Observed (O)	Expected (E)	(O-E) ² /E
Disagree (Gap Exists)	97	91	0.40
Agree (Prepared)	85	91	0.40
Total	182		$\chi^2 = 0.80$

Decision

Critical value (df = 1, $\alpha = 0.05$) = 3.84

Since 0.80 < 3.84, H₀ is ACCEPTED.

Calculation for Hypothesis 2 (H1)

Statement: "There is a significant perception among investors that long-term investors should prefer passive funds."

A. Weighted Mean Calculation

Scale	Weight (W)	Frequency (f)	Total Score (f×W)
Strongly Disagree	1	45	45
Disagree	2	38	76
Neutral	3	55	165
Agree	4	42	168
Strongly Agree	5	46	230
Total		226	684

Mean Calculation

Mean = 684

$$\frac{\quad}{226}$$

Mean = 3.03

B. Chi-Square Test for (H1)

Null Hypothesis (H₀): Responses are evenly distributed (No significant preference for passive funds among long-term investors).

Expected value: E = 171 / 2 = 85.5

Category	Observed (O)	Expected (E)	(O-E) ² /E
Disagree (Gap Exists)	83	85.5	0.07
Agree (Prepared)	88	85.5	0.07
Total	171		$\chi^2 = 0.14$

Decision: Critical value (df = 1, α = 0.05) = 3.84

Since 0.14 < 3.84, H₀ is ACCEPTED.

Final Consolidated Results Table

Hypothesis	Calculated Mean	χ^2 Value	Result
H1 (Passive Fund Cost Efficiency)	2.94	0.80	ACCEPTED
H2 (Preference for Passive Funds for Long -Term Investors)	3.03	0.14	ACCEPTED

CONCLUSION:

The mutual fund industry offers both active and passive investment strategies to cater to different investor needs.

- Active funds aim to outperform the market through professional management and strategic decision-making.
- Passive funds, on the other hand, focus on tracking market indices and providing stable long- term returns at lower costs.
- Survey results indicate that many investors recognize the cost advantages associated with passive funds.
- A considerable number of respondents believe that market efficiency makes it difficult for active managers to consistently outperform the market.
- The study shows that cost efficiency and transparency are key factors influencing investor preferences.
- The statistical analysis, including mean score and chi-square tests, supports the hypotheses regarding investor perceptions of passive funds.
- Overall, the study concludes that while both investment strategies remain relevant, passive funds are gaining popularity among investors due to their cost efficiency and long-term stability.

Future Scope of the Study

- Future research can include a larger and more diverse sample of investors from different regions to obtain more comprehensive insights into investment behavior.
- The study can be extended by comparing the long-term performance of active and passive mutual funds using real market data and historical returns.

- Further research may analyze the impact of investor awareness, financial literacy, and digital investment platforms on the preference for active or passive funds.

- Future studies can also examine additional factors such as risk tolerance, age, income level, and investment goals that influence investors' choice between active and passive mutual funds.

BIBLIOGRAPHY AND REFERENCES

Books and Journals

- **Jensen, M. C. (1968).** The Performance of Mutual Funds in the Period 1945–1964.

Journal of Finance, 23(2), 389–416.

- **Sharpe, W. F. (1991).** The Arithmetic of Active Management. *Financial Analysts Journal*, 47(1), 7–9.

- **Fama, E. F., & French, K. R. (2010).** Luck versus Skill in the Cross Section of Mutual Fund Returns. *Journal of Finance*, 65(5), 1915–1947.

- **Elton, E. J., Gruber, M. J., & Blake, C. R. (1996).** The Persistence of Risk- Adjusted Mutual Fund Performance. *Journal of Business*, 69(2), 133–157.

- **Bhattacharya, R., & Banerjee, A. (2018).** Mutual Fund Performance and Investor Behavior in India. *International Journal of Financial Studies*, 6(3), 1–15.

Reports and Web Resources

- **Association of Mutual Funds in India (AMFI). (2024).** *Indian Mutual Fund Industry Report*.

- **Securities and Exchange Board of India (SEBI). (2023).** *Mutual Fund Regulations and Investment Guidelines*.

- **Morningstar Research. (2024).** *Active vs Passive Fund Performance Report*.

- **Investopedia. (2024).** *Active vs Passive Investing: Differences and Strategies*.