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# "A STUDY ON INVESTOR'S PERSPECTIVE TOWARDS EXCHANGE TRADED FUNDS"

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# CHAPTER 1

# INTRODUCTION

## 1.1 INTRODUCTION

The financial landscape has changed dramatically over the last few decades, with stock brokerage firms playing a critical role in facilitating investment and trading activities. Stock brokers act as go-betweens for investors and the securities markets, facilitating the purchase and sale of financial instruments such as stocks, bonds, mutual funds, and exchange-traded funds (ETFs). These entities have played an important role in democratising access to financial markets by providing individual and institutional investors with the tools and platforms they need to manage and grow their wealth.

### Historical Context

Stock broking has a long history dating back to the 17th century, with the establishment of the Amsterdam Stock Exchange in 1602 being widely regarded as one of the first examples of organised securities trading. Over the centuries, stock exchanges spread around the world, resulting in the formation of various stock brokerage firms. Initially, these firms used physical exchanges where brokers met to trade securities on behalf of their clients. The New York Stock Exchange (NYSE), established in 1792, is an excellent example of such an institution, with the iconic image of traders shouting and signalling bids and offers becoming synonymous with stock trading.

## 1.2 INDUSTRY PROFILE

### FINANCIAL SERVICES:

The financial services industry encompasses a wide range of businesses that manage money, including banks, investment firms, insurance companies, and real estate firms. This industry is integral to the economy, facilitating capital formation, investment, and economic growth.

**Key Segments:**

- **Banking:** Includes commercial banks, investment banks, and central banks. They offer products like savings accounts, loans, and mortgages.
- **Asset Management:** Involves managing investments on behalf of clients, including mutual funds, hedge funds, and retirement funds.

- **Insurance:** Covers risk management services through various types of insurance products, such as life, health, and property insurance.
- **Stock Brokerage:** Facilitates the buying and selling of financial securities between a buyer and a seller. Brokerage firms earn a commission on each transaction.

**Financial Advisory:** Provides advice on financial planning, investment strategies, and wealth management.

Stock exchange is a place or platform where the stock brokers and traders can purchase and sell the various shares, bonds and other securities of the company. Many of the company have their stocks listed in the Securities Exchange Board of India, trading in such stocks and securities are considered to be most secure and also less risky as those are listed in the SEBI which has good control and also conduct periodic inspection. More of the liquid securities attract a greater number of investors. It also refers to as collection of various markets and exchanges which conduct basic transaction such as buying and selling of securities and financial instruments in the initial stages, initial public offerings are made in primary market and further dealings are made in secondary market. Stock exchange is the most important investment avenue in today's era.

**Services Provided by Stock Brokerage Companies**

Modern stock brokers provide a wide range of services in addition to trade execution. These services are intended to meet the diverse needs of their clients, ranging from individual retail investors to large institutional investors.

## 1.3 COMPANY PROFILE

SHAREKHAN LIMITED is running successfully since 1922. In the country it is recognised as the best stock broking company and best house of SSKI groups. It is a retail broking company of SS Kanthilal Ishwarlal Investors Services private limited. It was further promoted by MR. Sripal S and MR. Shreyas S and got established in 1925. In this firm online trading can be done through www.sharekhan.com and it was established in 2000 and it facilitates convenient transaction of funds and securities online all across the globe. This site is well known for its user-friendly language, efficient services, high and quality research conduction it has its participation whew over one lakh people trade in this site online.

SHAREKHAN has over 8 decades of experience in the stock broking field, it is famous and well known for its diversified offerings of securities and products to its traders, it also includes

trade execution on BSE and NSE, online trading, derivatives. It provides guidelines and advices regarding which is the best place and product to make investment with, which can yield more of the returns with minimum investment. It facilitates for the proper allocation of money in a productive manner. It is India's largest broking house in the current scenario it has the participation in NSDL and CSDL.

SHAREKHAN has the network of above 331 centres in 124 cities in India which provide various facility including retail trading services. It has a huge belief to make investment in technology for the improvement and growth of the business. The majority of the stake in the company is held by Morakhiya family. It was established in 1925 it has the headquarters in Mumbai which contains above 3500 employees.

SHAREKHAN is one of the top service provider companies in India. It contains huge number of services such as investment avenue, solutions in derivatives, mutual funds, equities, investment advices and it also provide helping hand in depository and portfolio management.

### 1.4 PROMOTERS

- Mr. Dinesh Murikya – Owner of the company
- Mr. Tarub Shah – Chief Executive Officer
- Mr. Shankar Vailaya – Director(operations)
- Mr. Jaideep Arora – Director (products & Technology)

### 1.5 VISION, MISSION & QUALITY POLICY

**VISION:**

"To be the best retail broking brand in the Indian financial market"

**MISSION:**

To educate and empower the individual investor to make better investment decisions through quality advice and superior service.

**QUALITY POLICY:**

- User friendly online trading facility
- Portfolio management and services
- Depository services

### 1.6 PRODUCT / SERVICE PROFILE

- **TRADING FACILITIES:** Share khan provides both online as well as offline trading facilities as it is the member of both NSE and BSE, it provides services worldwide to its clients and help them to make a good investment in secondary market. Its network spread across the country to facilitate proper trading facility
- **IPO:** It is one of the facilities that offers stocks to the public at a initial stage. The share thus is offered to the potential capable market and investors.
- **PORTFOLIO MANAGEMENT:** It provides the services of portfolio management, it means all the management is done by the company itself and the investors are required to do nothing everything is taken care by the company itself all the decisions to buy and sell, which Could be the best are looked after by the company professionals.
- **MUTUAL FUNDS:** Share khan is a powerful dealer of mutual funds. Funds from small investors are collected and it is again deposited in any beneficial shares, every small investor cannot get benefit by himself therefore, company acts as an intermediary and helps to get the benefit.
- **DEPOSITORY SERVICES:** Share khan provides depository services as the participant of National Depository Limited and Central Depository Limited.
- **EQUITY SHARES:** It facilitates services of equity shares as well by opening a D-mat account along with the trading account which acts as a reference to help the investors to know from where they can trade.
- **ONLINE / INTERNET TRADING:** Share khan also provides online transactions facilities through its website; it provides real time trading facility where a buy or sale of any securities are made just through the PC by anywhere online.

### 1.7 AREAS OF OPERATIONS

- BENGALURU
- MUMBAI
- NEW DELHI
- HYDERABAD
- AHMEDABAD
- CHENNAI
- KOLKATA

- BARODA
- GANDHINAGAR
- KOCHI

### 1.8 INFRASTRUCTURE FACILITIES

It is facilitated with well-equipped and networked global delivery centres which provides data driven operations and voice chat. It is a well-defined place where a retail investor can come in touch with great investment opportunities with a ease and comfort. It contains with updated and well configured computer system, it also provides with real time delivery and quality services and telecom connectivity.

### 1.9 COMPETITORS's INFORMATION

- **ZERODHA:** One of the largest discount brokers in India, Zerodha offers low-cost trading services and has gained a significant market share with its user-friendly platform and educational initiatives.
- **ICICI DIRECT:** A leading brokerage firm in India, ICICI Direct offers a wide range of investment products including equities, derivatives, mutual funds, and IPOs. It is part of the ICICI Group, one of India's largest financial conglomerates.
- **HDFC SECURITIES:** A subsidiary of HDFC Bank, HDFC Securities provides a comprehensive suite of financial products and services, including stockbroking, mutual funds, and fixed deposits.
- **ANGEL ONE:** Another major player in the Indian brokerage industry, Angel One offers a wide range of services including equity trading, portfolio management, and investment advisory.
- **KOTAK SECURITIES:** Part of the Kotak Mahindra Group, Kotak Securities provides services like stockbroking, portfolio management, and investment banking.
- **5PAISA:** A discount brokerage firm, 5paisa offers low-cost trading options and has a significant presence in the online trading space.
- **MOTILAL OSWAL:** Known for its research-based investment advice, Motilal Oswal offers a variety of financial products and services, including brokerage, asset management, and wealth management.
- **UPSTOX:** A rapidly growing discount broker, Upstox provides competitive pricing and a robust trading platform, appealing to a large number of retail investors

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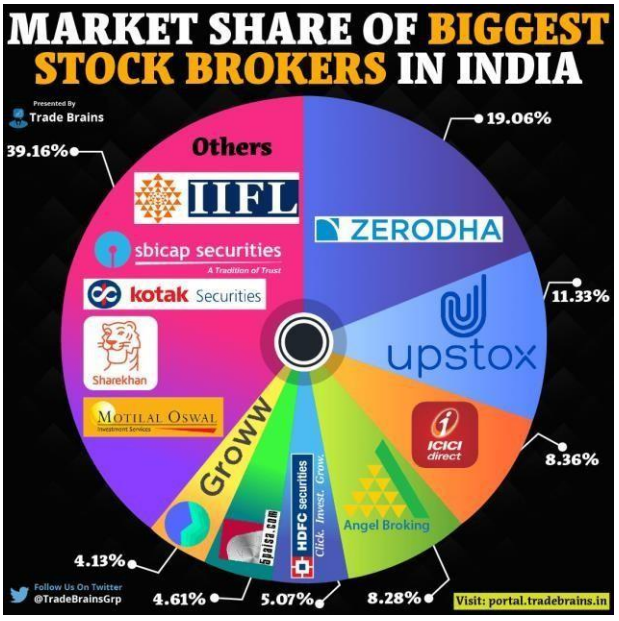


Source: tradebrains.in

*Fig 1.1 Market share of biggest stock brokers in India*

## 1.10 SWOT ANALYSIS

**STRENGTHS:**

- **Strong Research and Advisory:** Sharekhan is one of the oldest and most recognized stockbroking firms in India, which lends it credibility and trust among investors.
- **Comprehensive Services:** Sharekhan offers a wide range of services including online trading, portfolio management, investment advisory, and research reports, catering to various investor needs.
- **Brand Recognition:** Sharekhan is known for its robust research and advisory services, which help investors make informed decisions.
- **Technological Integration:** Sharekhan has a strong online trading platform with advanced tools and features, making it convenient for users to trade and manage their investments.

**WEAKNESS:**

- **Higher Brokerage Fees:** Compared to discount brokers like Zerodha and Upstox, Sharekhan's brokerage fees are higher, which may deter cost-conscious traders.
- **Dependence on Market Conditions:** Like other brokerage firms, Sharekhan's revenue is highly dependent on market conditions, which can be volatile and unpredictable.
- **No Access in Rural Areas**

**OPPORTUNITIES:**

- **Growth in Retail Investment:** The increasing participation of retail investors in the stock market presents a significant growth opportunity for Sharekhan.
- **Digital Transformation:** By continuing to enhance its digital platforms and mobile apps, Sharekhan can attract a tech-savvy younger demographic.
- **Expanding Services:** There is a potential to expand into new financial products and services such as robo-advisory, personal finance management tools, and more.
- **Partnerships and Collaborations:**
  Forming strategic partnerships with fintech companies and other financial institutions can help expand its offerings and customer base.

**THREATS:**

- **Intense Competition:**
  The brokerage industry in India is highly competitive, with numerous players including discount brokers offering low-cost services.
- **Regulatory Changes:**
  Changes in financial regulations and compliance requirements can impact operations and profitability.
- **Technological Disruptions:**
  Rapid advancements in technology and the rise of fintech startups can disrupt traditional brokerage models and capture market share.
- **Economic Downturns:**
  Economic slowdowns or downturns can lead to reduced trading volumes and lower revenues for brokerage firms.

## 1.11 FUTURE GROWTH & PROSPECTS

- **Expansion of Digital Platforms:**
  - Continual enhancement of online trading platforms and mobile apps to attract tech-savvy investors.
  - Integration of AI and machine learning for personalized investment advice and automated trading solutions.

- **Increased Retail Participation:**
  - Tapping into the growing retail investor base in India, driven by higher financial literacy and market awareness.
  - Offering educational programs and resources to new investors to build a loyal customer base.
- **Strategic Partnerships and Alliances:**
  - Forming collaborations with fintech companies to leverage advanced technologies and innovative solutions.
  - Partnering with banks and financial institutions to cross-sell products and services.
- **Focus on Tier-2 and Tier-3 Cities & rural:**
  - Expanding presence in smaller cities and towns where there is untapped potential for financial services.
  - Tailoring products and services to meet the specific needs of these markets.
- **Customer Experience Enhancement:**
  - Continuously improving customer service through AI-powered chatbots, personalized communication, and efficient grievance redressal mechanisms.
  - Implementing customer feedback to refine and innovate service offerings

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## 1.12 FINANCIAL STATEMENTS

### BALANCE SHEET

**1.1 Table showing comparative Balance sheet**

| **Particulars** | **Mar-24 (Rs in crore)** | **Mar-23 (Rs in crore)** | **Mar-22 (Rs in crore)** |
|---|---|---|---|
| Equity Capital | 35.5 | 35.5 | 35.3 |
| Preference Capital | 51 | 51 | 51 |
| Reserves | 1,219 | 1,122 | 876 |
| Net Worth | 1,305 | 1,209 | 962 |
| Minority Interest | | | |
| Debt | 335 | 335 | 360 |
| Deferred tax Liability | | 0.6 | 0.5 |
| **Total Liabilities** | **1,641** | **1,544** | **1,323** |
| Fixed Assets | 103 | 75.9 | 81 |
| Intangible assets | | | |
| Investment | 502 | 2.5 | 38 |
| Deferred Tax assets | 23.8 | 13.1 | 15 |
| **Net Working Capital** | **-17** | **-128** | **559** |
| Inventories | | | 240 |
| Inventory Days | | | |
| Sundry Debtors | 271 | 317 | 216 |
| Debtor Days | | | |
| Other Current Asset | 854 | 550 | 793 |
| Sundry Creditors | -903 | -858 | -578 |
| Creditors Days | | | |
| other current liabilities | -170 | -139 | -113 |
| **Cash** | **1,028** | **1,581** | **630** |
| **Total Assets** | **1,641** | **1,544** | **1,323** |

## INTERPRETATION

- Equity (Net Worth): The company's net worth has steadily increased over the last three years, indicating a rise in shareholder value. (35.5 + 51 + 1219) vs (35.3 + 51 + 876).
- Debt levels have remained relatively stable, indicating that the company is not taking on too much debt to fund operations.
- Overall Liabilities: Total liabilities have increased slightly, but they continue to grow in proportion to net worth.
- Fixed Assets: Fixed assets have fluctuated, potentially indicating investments in property, plant, and equipment between March 22 and March 24.
- Investments: Investments decreased significantly between March 22 and March 23, possibly due to holdings being sold or used for operations.
- Net Working Capital: In March 24, net working capital (current assets minus current liabilities) became negative, indicating that the company may struggle to meet short-term obligations with current assets. This represents a significant shift from the positive working capital in March 22.

## PROFIT & LOSS ACCOUNT

### 1.2 Table showing comparative Profit and Loss statement

| Particular | Mar-24 (Rs in crore) | Mar-23 (Rs in crore) | Mar-22 (Rs in crore) |
|---|---|---|---|
| **Total Revenue** | **1340** | **1003** | **652** |
| **Total Expenditure** | **637** | **585** | **463** |
| **Operating Profit** | **703** | **470** | **189** |
| **Depreciation** | **27** | **21** | **19** |
| **Interest Cost** | **61** | **66** | **111** |
| **PBT** | **615** | **383** | **159** |
| **Tax** | **108** | **68** | **23** |
| **PAT** | **507** | **263** | **36** |

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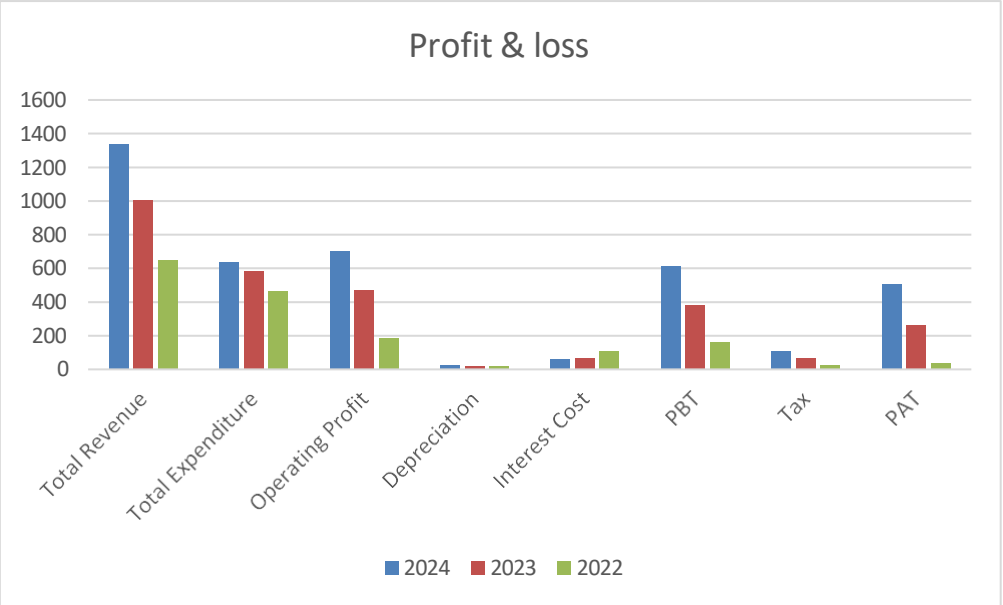


*1.1 Graph showing comparative Profit and Loss statement*

**INTERPRETATION**

- Revenue increased significantly in March 24 compared to March 23 (33.60% vs 53.83%). This is a good sign, indicating increased sales and possibly market share growth.
- Profitability margins appear to be improving in March-24 (10.36%) versus March-23 (-19.66%). This suggests that the company is better at managing expenses or selling products/services at higher prices.
- Expense growth appears to be under control in March-24 (8.89%) versus March-23 (26.35%). This shows that the company is effectively managing its expenses while revenue is increasing.
- Profit after tax (PAT) increased at a faster rate than revenue in March-24 (92.78% vs 33.60%). This suggests that the company is effectively converting revenue to profit.

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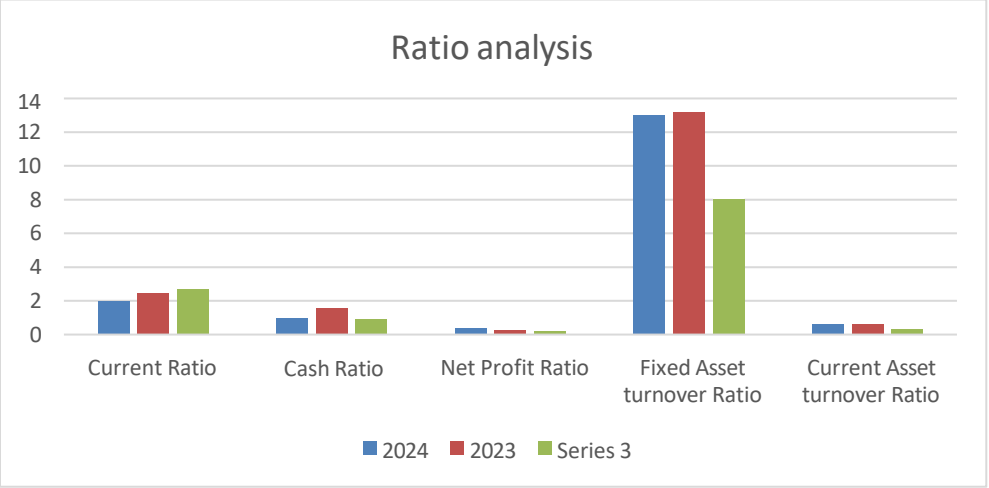
## RATIOS ANALYSIS

### 1.3 Table showing ratio analysis

| Particulars | 2024 | 2023 | 2022 |
|---|---|---|---|
| Current Ratio | 2.01 | 2.46 | 2.71 |
| Cash Ratio | 0.96 | 1.59 | 0.91 |
| Net Profit Ratio | 0.38 | 0.26 | 0.21 |
| Fixed Asset turnover Ratio | 13.01 | 13.21 | 8.05 |
| Current Asset turnover Ratio | 0.62 | 0.63 | 0.35 |




*1.2 Graph representing various ratios*

## INTERPRETATION

- **Current Ratio:** The current ratio fell from 2.71 in March 22 to 2.01 in March 24, indicating a slight decline in the company's ability to meet short-term obligations with current assets. However, a current ratio greater than one is still considered good, and the company may have adequate liquidity.
- **Cash Ratio:** The cash ratio has also fallen, from 0.91 in March 22 to 0.96 in March 24. While it remains above 0.5, which is generally considered acceptable, the decrease indicates that a slightly smaller proportion of current assets are readily available as cash.
- **Net Profit Ratio (Profit Margin)**: The net profit ratio (profit margin) has increased significantly from 0.21 in March 2022 to 0.38 in March 2024. This indicates that the company is making a higher profit per rupee of revenue.

- **Fixed Asset Turnover Ratio:** The fixed asset turnover ratio has remained relatively stable over the past three years. A higher ratio is generally preferable because it indicates that the company is efficiently using its fixed assets to generate sales.
- **Current Asset Turnover Ratio:** The current asset turnover ratio has increased slightly, from 0.35 in March 22 to 0.62 in March 24. This suggests that the company is becoming more efficient in how it uses its current assets

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# CHAPTER 2

# CONCEPTUAL BACKGROUND & BACKGROUND

## 2.1 THEORATICAL BACKGROUND OF THE STUDY

### Introduction to ETFs

The financial landscape has shifted dramatically over the last few decades, with Exchange-Traded Funds (ETFs) emerging as one of the most influential investment vehicles. Since their inception in the early 1990s, ETFs have gained significant traction among both individual and institutional investors due to their flexibility, cost efficiency, and broad market exposure. Despite their increasing popularity, understanding investor behaviour and attitudes towards ETFs remains an important area of research, providing insights into investment decision-making processes and market dynamics.

The study aims to delve into investors' complex perceptions and attitudes towards ETFs. By investigating various factors that influence investor preferences, such as risk tolerance, investment objectives, and market knowledge, the study aims to provide a comprehensive analysis of the motivations driving ETF investment. The study will also look at the advantages of ETFs over other investment instruments, the impact of market conditions on ETF adoption, and changing trends in investor behaviour.

Understanding investors' attitudes towards ETFs is critical for not only financial advisors and portfolio managers, but also policymakers and financial institutions. It aids in developing strategies that are responsive to investor needs, improving the design of financial products, and fostering a more robust investment environment. As a result, this study adds to the larger discussion about financial innovation and investor education, with the ultimate goal of promoting informed investment decisions and financial well-being.

An exchange-traded fund (ETF) is a pooled investment security that can be purchased and sold like a single stock. ETFs can be designed to track anything from commodity prices to a large and diverse portfolio of securities.

- An exchange-traded fund (ETF) is a collection of securities that trades on an exchange, just like a stock.
- ETF share prices fluctuate throughout the day as the ETF is bought and sold, whereas mutual funds only trade once a day after the market closes.

- ETFs have lower expense ratios and require fewer broker commissions than buying stocks individually.

**How ETFs Work?**

- Exchange-Traded Funds (ETFs) are investment funds that trade on stock exchanges, much like individual stocks. ETFs hold assets such as stocks, bonds, commodities, or a combination of the three, and are intended to track the performance of a specific index or sector. Throughout the trading day, investors buy and sell ETF shares at market prices that may differ from the fund's net asset value (NAV). Authorized participants, typically large financial institutions,
- Create and redeem ETF shares directly with the fund, which helps to keep the market price in line with the NAV. ETFs offer investors intraday liquidity, transparency, and the flexibility to implement a variety of trading strategies.

**ETFs are classified into several types, which include:**

- Index ETFs: These funds track the performance of a specific index, such as the S&P 500.
- Sector and Industry ETFs: These funds focus on specific sectors, such as technology or healthcare, or industries within those sectors.
- Bond ETFs allow you to invest in fixed-income securities like government, corporate, and municipal bonds.
- Commodity ETFs provide exposure to commodities such as gold, oil, and agricultural products.
- International ETFs: Invest in markets other than the investor's home country.
- Actively managed ETFs: Unlike traditional ETFs, portfolio managers make investment decisions for the fund.

## 2.2 LITERATURE REVIEW

- **(Costa et al., 2019)** Using Sentana and Wadhwani's feedback trading model (1992), the paper examines investor behavior in ETF markets in Brazil, China, South Africa, Korea, Mexico, India, and the US. It examines the NAVs and daily closing prices of three exchange-traded funds (ETFs) in each market through May 5, 2017. Results show that feedback trading occurs in Brazil, Korea, Mexico, and India but not in the US. This suggests that investors in mature markets are more information-driven and more fundamentally driven than investors in emerging markets. In order to increase market efficiency, the study underscores the necessity of more research as emerging markets expand and stresses how crucial it is for these regions' policymakers to address informational asymmetries and noisy traders.

- **(Elton et al., 2019)** analyzes investor behavior in ETF markets in Brazil, China, South Africa, Korea, Mexico, India, and the US using Sentana and Wadhwani's feedback trading model (1992). It does this by looking at the NAVs and daily closing prices of three ETFs in each market up until May 5, 2017. The findings show that feedback trading is nonexistent in the US and that it is common in Brazil, Korea, Mexico, and India. This suggests that investors in established markets are more informed and have different motivations than those in emerging markets. In order to improve market efficiency, the study underscores the necessity of additional research as emerging markets expand and stresses how crucial it is for these regions' policymakers to address informational asymmetries and noisy traders.

- **(Lee et al., 2021)** looks into how home country-specific characteristics and investor interest, as gauged by the Google Search Volume Index, affect the returns of 47 single-country ETFs from 36 countries that were traded in the United States between 2004 and 2017. The research indicates that while home country-specific factors significantly influence ETF returns at different quantiles, investor attention in their home country corresponds with low to medium ETF returns, validating the attention-induced price pressure hypothesis. Furthermore, investors like investing in nations that are comparable to the United States, supporting the cross-country information asymmetry theory. Additionally, the study shows that the relationship between U.S. investor attention and ETF performance is mediated by factors

specific to the investor's home country. These observations can direct government initiatives to draw in foreign money and raise capital market value.

- **(Goltz & Schröder, 2011)** survey results from 2008 and 2009—conducted before and after the peak of the financial crisis—are compared to investigate investor attitudes of exchange-traded funds (ETFs) and other indexing products. According to the analysis, ETFs in alternative asset classes faced challenges, whilst those in standard asset classes were untouched by the crisis. ETFs are often rated higher than other indexing products despite these difficulties, most likely because of their increased transparency and liquidity. According to the report, investor confidence in exchange-traded funds (ETFs) was demonstrated by the fact that investment in these instruments remained robust during the financial crisis.

- **(Cheng et al., 2019)** the global ETF market provides more sophisticated investment vehicles. According to the study, ETFs frequently stray from their benchmarks in order to take advantage of informational benefits. This leads to impressive stock-selection skills and helps related open-end funds (OEFs) by facilitating cross-trading. These tendencies are especially prevalent in European-domiciled ETFs. Furthermore, it seems that ETF flows react to higher risk. These findings underscore the need for regulatory attention to protect investors and preserve market stability, with major normative implications for consumer protection and financial stability.

- **(Lettau & Madhavan, 2018)** exchange-traded funds (ETFs) are usually created to track particular indexes. With $178 billion in assets, the SPDR, the first US-listed exchange-traded fund (ETF) that tracks the S&P 500, was introduced by State Street in January 1993 and is still the largest ETF. ETFs included a broad range of domestic, foreign, sector, region, and country indices after their launch. Significant assets in bond exchange-traded funds (ETFs) and "smart beta" funds, which mimic actively managed mutual and hedge fund strategies, have seen recent expansion. In comparing ETFs to mutual funds, this article emphasizes the structural benefits of ETFs, such as transparency, lower costs, liquidity, and tax efficiency.

- **(Ben-David et al., 2014)** investigates if the volatility of the underlying stocks is impacted by ETFs, which are becoming more and more significant. Using identification strategies based on the mechanical variation in ETF ownership, the evidence shows that stocks held by ETFs experience significantly higher intraday and daily volatility. A one standard deviation increase in ETF ownership is correlated with a daily increase in stock volatility of sixteen percent. This rise in volatility is mostly driven by arbitrage operations between ETFs and their underlying stocks, with more obvious effects in stocks with lower bid-ask gaps and loan costs. Furthermore, the correlation between ETF ownership and higher stock turnover implies that ETF arbitrage adds another level of trading to the underlying securities.

- **(Hamm, 2014)** investigates whether the availability of substitutes for ignorant investors to avoid trading against knowledgeable ones reduces the liquidity of individual stock markets. The illiquidity of the underlying equities is positively correlated with the percentage of firm shares held by exchange-traded funds (ETFs), according to the study. However, for stocks with superior earnings quality, this loss in liquidity is less noticeable. These results imply that less informed investors weigh the advantages and disadvantages of trading fundamental equities vs portfolios. The study also looks at the relationship between portfolio-level liquidity and diversity, pointing out that liquidity can fluctuate between a portfolio and the equities that make up its underlying holdings.

- **(Malamud, 2016)** a dynamic general equilibrium model of exchange-traded funds (ETFs) that represents the two-tier market structure, which is made up of an authorized participant-facilitated creation/redemption mechanism (primary market) and a controlled exchange (secondary market). This model indicates that the creation/redemption mechanism functions as a shock propagation channel, causing transient demand shocks to have long-lasting effects on future prices. It also accommodates multiple ETFs and basket securities. In particular, these shocks have the potential to create a prolonged ETF pricing gap and momentum in asset returns. Improving the primary market's liquidity encourages formation and redemption activity, which amplifies the shock propagation channel and may raise the volatility of the underlying assets as well as the ETF price gap. On the other hand, the launch of new ETFs can increase liquidity, lessen return co-movement, and reduce volatility.

- **(Gastineau, n.d. 1998)** discusses the explosive growth of Exchange-Traded Funds (ETFs), whose assets have more than doubled annually since 1995. ETFs have gained popularity among proponents of low-cost index funds, such as Vanguard, which plans to add exchange-traded share classes to a number of its domestic index funds. The media frequently draws attention to the key benefits of exchange-traded funds (ETFs) such as their low costs, intraday trading, and high tax efficiency with little premiums or discounts to their intraday net asset value. However, there is a great deal of misinformation regarding these funds' functionality, appropriate market niches, the rationale behind their low expense ratios, and their capacity to avert large capital gains distributions. The purpose of this article is to address these often asked questions by investors.

- **(Jiang & Yan, n.d., 2012)** Leveraged ETFs are unique in the context of typical theories of financial innovation because, although being primarily marketed to retail investors, they actually raise information sensitivity rather than reduce it. How does market liquidity get affected by this? When the underlying index is taken into account, the turnover in the levered ETF market is many times more than in the ordinary ETF market. This does not, however, suggest that the market for leveraged ETFs is more liquid because we also find that the bid-ask spreads and liquidity ratios of leveraged ETFs are much greater. Leveraged ETFs are thought to attract to specific types of investors who are engaged in short-term leveraged speculation or hedging.

- **(Chen et al., 2011)** examines the phenomenal growth of Exchange-Traded Funds (ETFs), since 1995, their assets have more than doubled yearly, according to a research report on the subject. It emphasizes how most proponents of inexpensive index funds, like Vanguard, have welcomed exchange-traded funds (ETFs), and Vanguard intends to expand its lineup of domestic index funds to include exchange-traded share classes. In addition to addressing common misconceptions about how ETFs work, the paper also identifies which industries are good candidates for ETFs and which ones are not, explains why expense ratios are low, and explains how ETFs avoid having to pay out large capital gains distributions. In order to better enlighten investors, the author seeks to shed light on some commonly asked topics.

- **(D'Hondt et al., 2021)** examines the trading patterns of retail investors who own passively invested exchange-traded funds (P-ETFs) in equities through the use of random matching. Through the analysis of survey data and trading records, the research accounts for important investor characteristics and concludes that retail investors who hold P-ETFs have different trading habits from those who solely own individual equities. P-ETF investors, in particular, hold their assets for longer periods of time, have larger portfolios, and have lower turnover rates. Furthermore, core-satellite investors are less likely to invest in high-risk, lottery-like equities, and P-ETF investors are better shielded against speculative stock gambling.

- **(Duffy et al., 2021)** investigates the effects of exchange-traded funds (ETFs) on turnover and asset price in a lab asset market. Our focus is on secondary market activity, both with and without ETF assets, and whether asset distributions are negatively or positively correlated. The advantages of ETF diversity stand out the greatest in the latter scenario. It is shown that ETFs mitigate asset mispricing when there is a negative correlation between the dividends and market activity (turnover). The ETF has no effect on these identical criteria in the case of uncorrelated dividends. Therefore, our results imply that ETFs may enhance price discovery and liquidity in asset markets rather than hinder them.

- **(Huang & Guedj, 2009)** evaluate the effectiveness of open-ended mutual funds (OEFs) and exchange-traded funds (ETFs) as indexing vehicles, the study creates an equilibrium model. It concludes that although flow-induced trading hurts OEF investors, it creates a zero-sum game for those who initiate the flow. For risk-averse investors who experience liquidity shocks, the OEF structure provides liquidity insurance. But there are drawbacks to this insurance, like moral hazard, which encourages excessive trading and lowers performance. OEFs are typically preferred by investors with higher liquidity demands because of the liquidity insurance they offer. The OEF structure is nonetheless sustainable in spite of this concentration since trading costs are determined by total liquidity demands rather than individual needs, and they balance out at the fund level. As a result, OEFs and ETFs coexist and serve distinct liquidity needs.

- **(Ben-David et al., 2014)** the effectiveness of open-ended mutual funds (OEFs) and exchange-traded funds (ETFs) as indexing vehicles, the study creates an equilibrium model. It concludes that although flow-induced trading hurts OEF investors, it creates a zero-sum game for those who initiate the flow. For risk-averse investors who experience liquidity shocks, the OEF structure provides liquidity insurance. But there are drawbacks to this insurance, like moral hazard, which encourages excessive trading and lowers performance. OEFs are typically preferred by investors with higher liquidity demands because of the liquidity insurance they offer. The OEF structure is nonetheless sustainable in spite of this concentration since trading costs are determined by total liquidity demands rather than individual needs, and they balance out at the fund level. As a result, OEFs and ETFs coexist and serve distinct liquidity needs.

- **(Khomyn et al., 2024)** examines the dynamics of ETF competition, with a particular emphasis on how secondary market liquidity affects ETF fees. It illustrates how ETFs that offer more liquidity for a particular index typically have higher fees as well, drawing in investors with short time horizons who value liquidity above expense. These investors' greater trading activity keeps the ETF's high liquidity intact, enabling it to impose higher fees and gain a first-mover advantage. Because of clientele effects, this liquidity segregation results in welfare losses. The results clarify why, in equilibrium, higher-fee ETFs can not only endure but also prosper despite their greater expenses.

- **(Popa, 2017)** draws attention to the benefits and features of exchange-traded funds, or ETFs, which have become increasingly popular since the 2007–2008 global financial crisis. Since then, the assets under management of the ETF industry have increased by more than 3000%. Using weekly closing prices for fifteen ETFs and stocks, the study analyzes the advantages of ETFs over a stock-only portfolio. It also computes the Value at Risk (VaR) model and market and minimum-variance portfolios during a two-year period (2015-2017). An overview of the ETF market is given in the last chapter, which also covers the main prospects and difficulties for the upcoming years.

- **(Kunjal, 2024)** goal is to draw attention to the benefits and features of exchange-traded funds, or ETFs, which have become increasingly popular since the 2007–2008 global

financial crisis. Since then, the assets under management of the ETF industry have increased by more than 3000%. Using weekly closing prices for fifteen ETFs and stocks, the study analyzes the advantages of ETFs over a stock-only portfolio. It also computes the Value at Risk (VaR) model and market and minimum-variance portfolios during a two-year period (2015-2017). An overview of the ETF market is given in the last chapter, which also covers the main prospects and difficulties for the upcoming years.

- **(H.-L. Chen, 2024)** invests in exchange-traded funds (ETFs) rather than the underlying assets directly, mainly with regard to the mitigation of total portfolio volatility. Open-end equity funds (OEFs) that invest in exchange-traded funds (ETFs) and are actively managed frequently hold short positions in both securities and ETFs. Hedging is the primary reason to invest in ETFs, as evidenced by a comparison of the portfolio composition overlap between OEFs and the ETFs they own and their positions in hedging versus nonhedging ETFs. The OEFs' larger risk management objectives are in line with this method, which helps control and minimize portfolio volatility.

## 2.3 RESEARCH GAP

There is a lack of detailed analysis that compares awareness and understanding across different levels of investor experience. This study aims to close this gap by providing a more nuanced understanding of how different levels of experience influence ETF knowledge. More granular research is needed to quantify the impact of specific factors such as expense ratios, diversification, trading ease, tax efficiency, and information availability on investment decisions. This study will close the gap by systematically evaluating these factors. More granular research is needed to quantify the impact of specific factors such as expense ratios, diversification, trading ease, tax efficiency, and information availability on investment decisions. This study will close the gap by systematically evaluating these factors.

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# CHAPTER 3

# RESEARCH DESIGN

## Literature review

### Objectives of the study

- To examine the level of awareness and understanding of ETFs among investors
- To identify the primary factors influencing investors' decisions to invest in ETFs
- To analyze investor satisfaction and perceived value of ETFs in portfolio management.

### Hypothesis

**Null Hypothesis $H0_1$:** There is no significant difference in the level of awareness and understanding of ETFs among investors with different levels of investment experience.
**Alternative Hypothesis $H_1$:** There is a significant difference in the level of awareness and understanding of ETFs among investors with different levels of investment experience.
**Null Hypothesis $H0_2$:** There is no significant relationship between the identified factors and investors' decisions to invest in ETFs.
**Alternative Hypothesis $H_2$:** There is a significant relationship between the identified factors and investors' decisions to invest in ETFs.
**Null Hypothesis $H0_3$:** There is no significant relationship between the inclusion of ETFs in a portfolio and investor satisfaction and perceived value of ETFs in portfolio management.
**Alternative Hypothesis $H_3$:** There is a significant relationship between the inclusion of ETFs in a portfolio and investor satisfaction and perceived value of ETFs in portfolio management.

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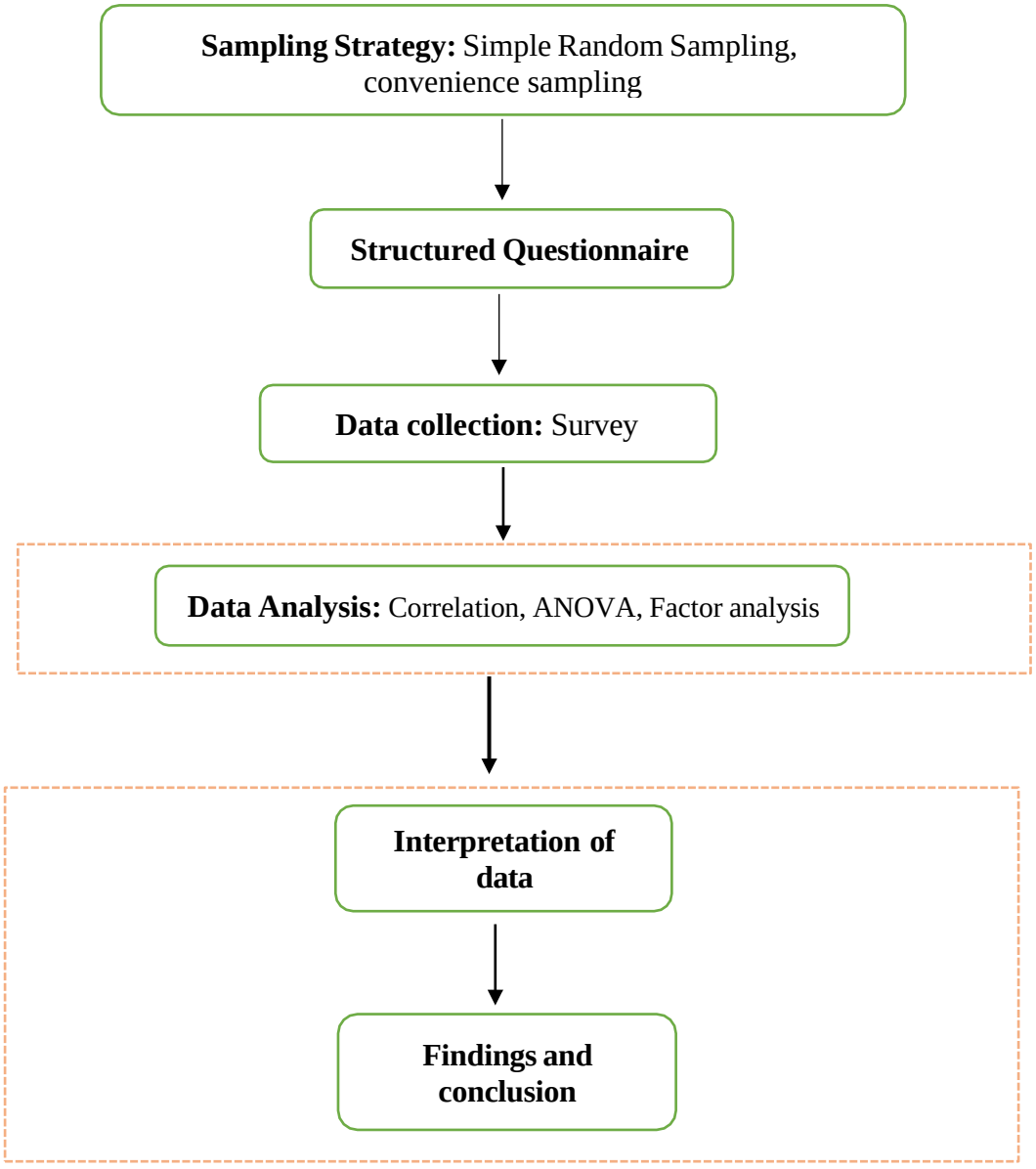


3.1 Chart showing research design

### 3.1 Statement of the problem

Exchange-Traded Funds (ETFs) have become a popular investment vehicle due to their flexibility, cost-efficiency, and ability to provide diversification. Despite their growing presence in the financial markets, there remains a gap in understanding the perspectives of different investor demographics toward ETFs. The study seeks to explore the factors influencing investor decisions to invest in ETFs, with a particular focus on demographic variables such as age, gender, investment experience, and income levels. The problem lies in identifying whether the benefits of ETFs are well-understood and appreciated across diverse investor groups, and how these perceptions influence their investment behavior and satisfaction with ETFs.

Understanding these perspectives is crucial for several reasons. First, it helps financial advisors and ETF providers tailor their products and services to meet the needs of various investor segments. Second, it informs policymakers and regulatory bodies on how to design educational programs and policies that promote informed investing. Lastly, it aids in identifying potential barriers or misconceptions that might prevent investors from fully benefiting from ETFs. Addressing these issues can lead to better investment outcomes and a more robust and inclusive financial market.

### 3.2 Need for the study

The growing popularity of Exchange-Traded Funds (ETFs) in global financial markets highlights the necessity to understand the perspectives and behaviours of investors towards these instruments. As ETFs offer benefits such as diversification, cost-efficiency, and ease of trading, it is imperative to assess whether investors from various demographics fully comprehend and utilize these advantages. The study aims to bridge the knowledge gap regarding investor awareness, satisfaction, and decision-making processes related to ETFs.

A comprehensive understanding of investor perspectives is essential for several stakeholders. Financial advisors and ETF providers can benefit from insights into investor preferences and concerns, allowing them to tailor their offerings and communication strategies effectively. Policymakers and regulatory bodies can utilize the findings to develop targeted educational initiatives and regulatory frameworks that enhance investor protection and market transparency. Furthermore, by identifying potential barriers and misconceptions, the study can help foster greater investor confidence and participation in the ETF market, ultimately contributing to a more inclusive and efficient financial ecosystem.

### 3.3 Research Objectives

- To examine the level of awareness and understanding of ETFs among investors
- To identify the primary factors influencing investors' decisions to invest in ETFs
- To analyze investor satisfaction and perceived value of ETFs in portfolio management.

### 3.4 Scope of the study

The study on investors' perspectives towards Exchange-Traded Funds (ETFs) encompasses several critical dimensions, including demographic analysis, investment experience, awareness levels, and satisfaction with ETFs. The research will primarily focus on understanding how different demographic groups, such as age, gender, and income levels, influence perceptions

and decisions related to ETF investments. By analyzing these factors, the study aims to provide a detailed profile of the typical ETF investor and highlight any significant variations across different segments of the population.

### 3.5 Research methodology

#### 3.5.1 Sample

- Target Population: Individual ETF investors
- Sample Size: 292 investors
- Sampling Method: Simple random sampling or convenience sampling through a structured questionnaire.

#### 3.5.2 Data Collection

➢ **Primary data:**

- Primary data is collected from Individual investors.
- Information/Inputs obtained from the External Project Guide and the Internal Guide.

➢ **Secondary data:**

- Secondary data is used in the study.
- Information is available on SHAREKHAN LTD.'s website.
- Conduct literature reviews on theoretical information and perspectives from various researchers, gathered from journals, magazines, books, and articles.

#### 3.5.3 Quantitative Data:

**Survey Items**:

- Demographic information (age, gender, income level, education)
- Investment experience (years of investing)
- Awareness and understanding of ETFs (measured on a Likert scale)
- Factors influencing investment decisions (measured on a Likert scale)
- Satisfaction and perceived value of ETFs (measured on a Likert scale)

#### 3.5.4 Data Analysis

- Descriptive statistics to summarize the data (e.g., mean, median, mode, standard deviation)
- Correlation: To test differences in awareness and understanding of ETFs among investors with different levels of investment experience.

- Factor Analysis: To examine the relationship between identified factors (expense ratios, diversification, ease of trading, tax efficiency, availability of information) and investment decisions.
- ANOVA: To analyze Investor Satisfaction and Perceived Value of ETFs in Portfolio Management.

### 3.6 Hypothesis

**Null Hypothesis $H0_1$:** There is no significant difference in the level of awareness and understanding of ETFs among investors with different levels of investment experience.

**Alternative Hypothesis $H_1$:** There is a significant difference in the level of awareness and understanding of ETFs among investors with different levels of investment experience.

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**Null Hypothesis $H0_3$:** There is no significant relationship between the inclusion of ETFs in a portfolio and investor satisfaction and perceived value of ETFs in portfolio management.

**Alternative Hypothesis $H_3$:** There is a significant relationship between the inclusion of ETFs in a portfolio and investor satisfaction and perceived value of ETFs in portfolio management.

### 3.7 Limitations

- Time limit is a constraint on understanding concepts in depth.
- The study may be limited by the self-reported nature of survey data, which can introduce response bias.
- The findings may not be generalizable beyond the sample population, particularly if the sample is not representative of the broader population of investors.

### 3.8 Chapter scheme

**Chapter 1: Introduction**

The chapter includes an overview of Industry Profile and Company Profile.

**Chapter 2: Conceptual Background and Literature Review**

The chapter includes the theoretical background of the study, Literature Review with research gap.

**Chapter 3: Research Design**

This chapter includes the Statement of the problem, Need for the study, Objectives, Scope of the study, Research methodology, Limitations and the Chapter scheme.

**Chapter 4: Analysis and Interpretation**

The chapter includes all the Analysis and Interpretation of the data collected with relevant tables and graphs and the results obtained by using statistical tools and hypothecation are included.

**Chapter 5: Findings, Conclusion and suggestions**

The chapter includes the summary of findings, Conclusion and Suggestions and Recommendations of the study conducted

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# CHAPTER 4

# ANALYSIS and INTERPRETATION

## I DESCRIPTIVE STATISTICS

### 4.1 Table showing descriptive statistics of demographic

**Statistics**

| | | Age | Gender | Investment Experience | Annual Income |
|---|---|---|---|---|---|
| N | Valid | 292 | 292 | 292 | 292 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 2.09 | 1.66 | 2.69 | 2.32 |
| Std. Error of Mean | | .045 | .028 | .056 | .046 |
| Median | | 2.00 | 2.00 | 3.00 | 2.00 |
| Mode | | 2 | 2 | 3 | 2 |
| Std. Deviation | | .777 | .473 | .949 | .786 |
| Variance | | .604 | .224 | .901 | .618 |
| Skewness | | .464 | -.700 | .312 | .219 |
| Std. Error of Skewness | | .143 | .143 | .143 | .143 |
| Percentiles | 100 | 4.00 | 2.00 | 5.00 | 4.00 |

**Interpretation**

- **Age and Gender:**
  - The mean age is 2.09, with a median of 2.00 and a mode of 2. This suggests that the majority of the sample is likely young, possibly representing a student or early career population.
  - The mean gender value is 1.66, which is unexpected as gender is typically categorical. There might be a coding error or the data might be transformed for analysis (e.g., 1 for male, 2 for female). Further investigation is needed.
- **Investment Experience and Annual Income:**
  - The mean investment experience is 2.69 years, indicating moderate experience levels in the sample. The median of 3.00 suggests that half the sample has three or more years of experience.

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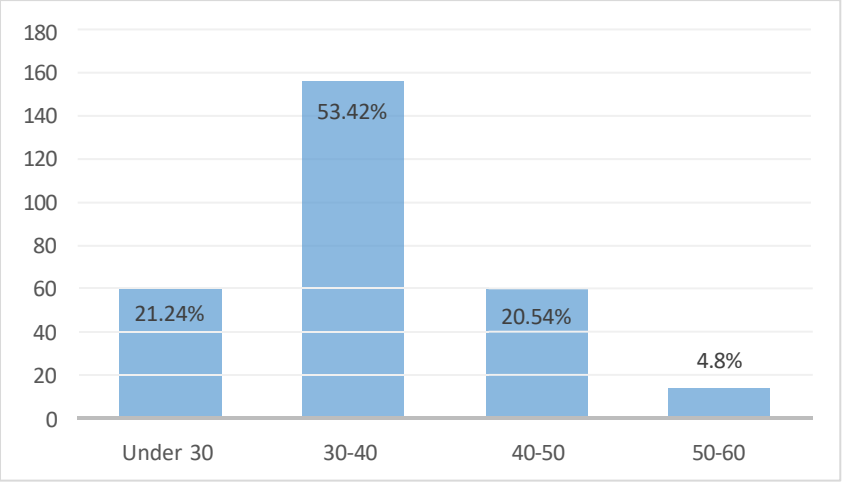
- The mean annual income is 2.32 (assuming a specific unit of measurement), suggesting a relatively low-income level for the sample. The median of 2.00 indicates that half the sample earns less than this amount.

➢ **Data Distribution:**

- The standard deviations for all variables are relatively small, indicating low variability in the data.
- The skewness values suggest that Age and Investment Experience are slightly positively skewed while Gender and Annual Income are negatively skewed However, these skewness values are not very large, indicating relatively symmetric distributions.

**4.2 Table representing the distribution of the age of investors**

| AGE | Frequency | Percentage |
|---|---|---|
| Under 30 | 62 | 21.24 |
| 30-40 | 156 | 53.42 |
| 40-50 | 60 | 20.54 |
| 50-60 | 14 | 4.8 |
| Total | 292 | 100 |




*4.1 Graph representing the distribution of the age of investors*

**Interpretation:** The majority of respondents, 53.42%, are aged between 30-40 years. People under 30 years make up 21.24%, while those aged 40-50 account for 20.54%. Only 4.8% are aged between 50-60 years, indicating a predominantly younger demographic.

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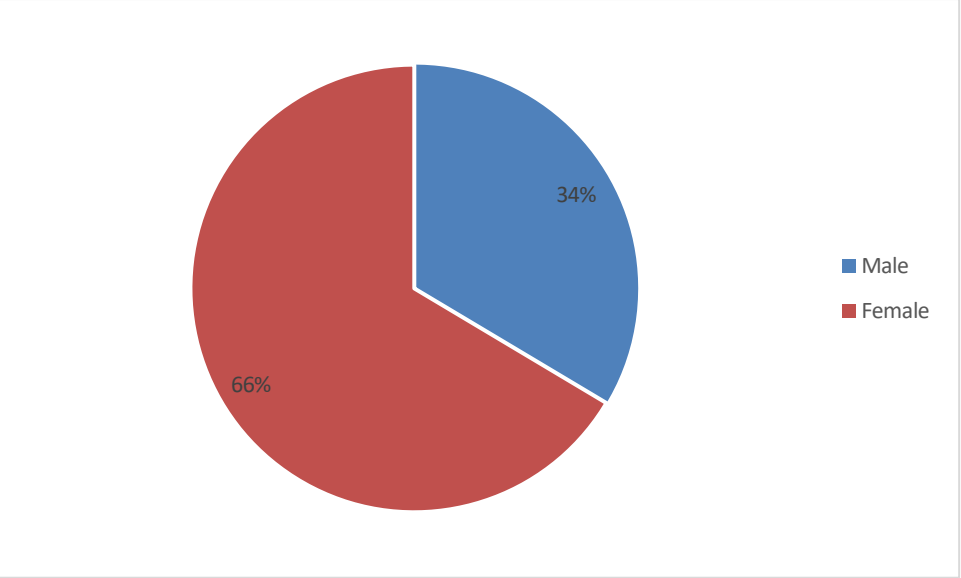
### 4.3 Table representing the distribution of the gender of investors

| GENDER | Frequency | Percentage |
|---|---|---|
| Male | 98 | 34 |
| Female | 194 | 66 |
| Total | 292 | 100% |

### 4.2 Graph representing the distribution of the gender of investors




*4.2 Graph representing the distribution of the gender of investors*

**Interpretation:** In the given data, 34% of the participants are male, while 66% are female. This distribution indicates a higher proportion of females compared to males.

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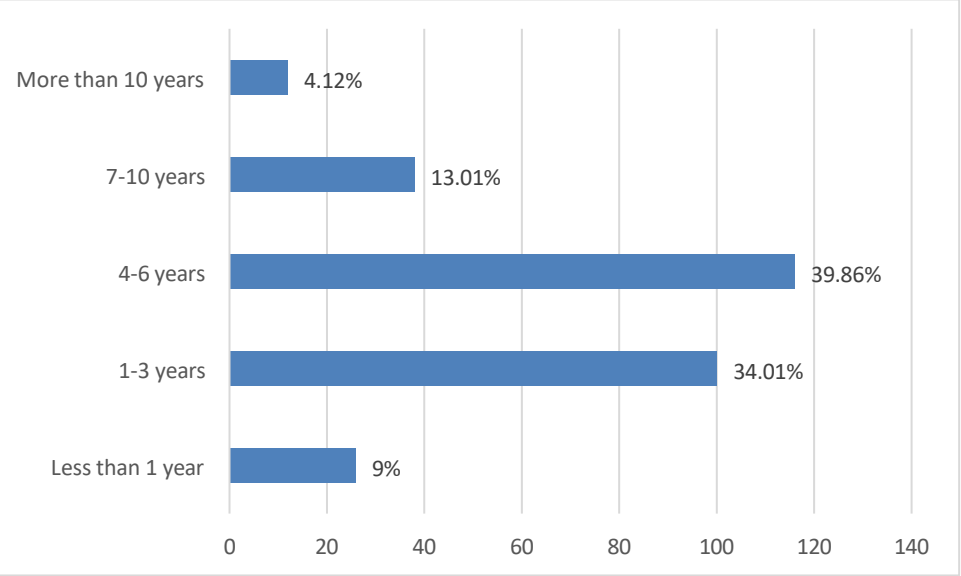
### 4.4 Table representing the distribution of Investment experience of investors

| INVESTMENT EXPERIENCE | Frequency | Percentage |
|---|---|---|
| Less than 1 year | 26 | 9 |
| 1-3 years | 100 | 34.01 |
| 4-6 years | 116 | 39.86 |
| 7-10 years | 38 | 13.01 |
| More than 10 years | 12 | 4.12 |
| Total | 292 | 100 |




*4.3 Graph representing the distribution of Investment experience of investors*

**Interpretation**

Among the participants, 9% have less than 1 year of investment experience, 34.01% have 1-3 years, and 39.86% have 4-6 years. 13.01% have 7-10 years, while 4.12% have more than 10 years.

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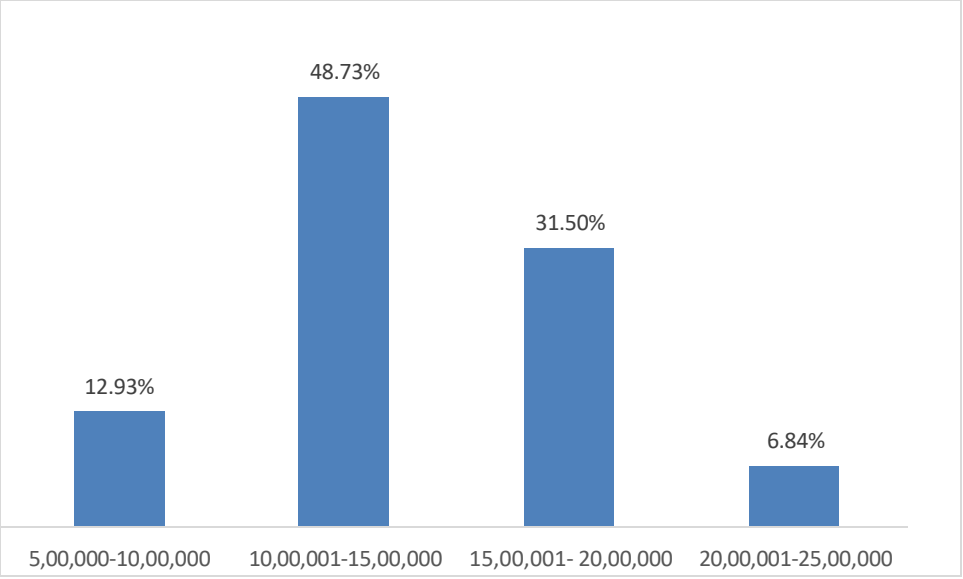
### 4.5 Table representing the distribution of Annual Income of investors

| ANNUAL INCOME | Frequency | Percentage |
|---|---|---|
| 5,00,000-10,00,000 | 38 | 12.93 |
| 10,00,001-15,00,000 | 142 | 48.73 |
| 15,00,001- 20,00,000 | 92 | 31.5 |
| 20,00,001-25,00,000 | 20 | 6.84 |
| Total | 292 | 100 |




*4.4 Graph representing the distribution of Annual Income of investors*

**Interpretation**

In the given data, 12.93% of participants have an annual income between ₹5,00,000-₹10,00,000, and 48.73% earn between ₹10,00,001-₹15,00,000. Additionally, 31.5% have an income of ₹15,00,001-₹20,00,000, while 6.84% earn ₹20,00,001-₹25,00,000.

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## II RELIABILITY TEST

**4.6 Table showing reliability statistics:**

| Reliability Statistics | |
|---|---|
| Cronbach's Alpha | No of Items |
| .836 | 15 |

**Interpretation of reliability statistics for Cronbach's Alpha**

**Cronbach's Alpha: 0.836**

Cronbach's Alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. Here's a detailed interpretation:

1. **High Reliability:**
    - A Cronbach's Alpha of 0.836 indicates a high level of internal consistency among the 15 items. Generally, an alpha value above 0.7 is considered acceptable, above 0.8 is considered good, and above 0.9 is excellent.

The Cronbach's Alpha value of 0.836 for the 15 items suggests that the items are highly consistent and reliable in measuring the factors influencing investors' decisions to invest in ETFs. This high level of reliability supports the use of these items in both research and practical applications within the financial industry

 

## III CORRELATION ANALYSIS

The correlation depicts the relationships between investors' awareness and understanding of Exchange-Traded Funds (ETFs) and their investment experience. The Pearson correlation coefficients (r) indicate the strength and direction of the linear relationships between these variables.

- **Objective:** To examine the level of awareness and understanding of ETFs among investors
- **Hypothesis: Null Hypothesis $H0_1$:** There is no significant difference in the level of awareness and understanding of ETFs among investors with different levels of investment experience.

  **Alternative Hypothesis $H_1$:** There is a significant difference in the level of awareness and understanding of ETFs among investors with different levels of investment experience.

**4.7 Table showing interpretation of correlation analysis on awareness and understanding of ETFs among investors**

| **Correlations** | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Investment Experience | Q1 | Q2 | Q3 | Q4 | Q5 |
| Investment Experience | Pearson Correlation | 1 | .186** | .146* | -0.019 | 0.058 | 0.071 |
| | Sig. (2-tailed) | | 0.001 | 0.013 | 0.750 | 0.323 | 0.226 |
| | N | 292 | 292 | 292 | 292 | 292 | 291 |
| Q1 | Pearson Correlation | .186** | 1 | .312** | .255** | .256** | .274** |
| | Sig. (2-tailed) | 0.001 | | 0.000 | 0.000 | 0.000 | 0.000 |
| | N | 292 | 292 | 292 | 292 | 292 | 291 |
| Q2 | Pearson Correlation | .146* | .312** | 1 | 0.033 | 0.062 | .230** |
| | Sig. (2-tailed) | 0.013 | 0.000 | | 0.570 | 0.290 | 0.000 |
| | N | 292 | 292 | 292 | 292 | 292 | 291 |
| Q3 | Pearson Correlation | -0.019 | .255** | 0.033 | 1 | .224** | 0.087 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Sig. (2-tailed) | 0.750 | 0.000 | 0.570 | | 0.000 | 0.138 |
| | N | 292 | 292 | 292 | 292 | 292 | 291 |
| Q4 | Pearson Correlation | 0.058 | .256** | 0.062 | .224** | 1 | .281** |
| | Sig. (2-tailed) | 0.323 | 0.000 | 0.290 | 0.000 | | 0.000 |
| | N | 292 | 292 | 292 | 292 | 292 | 291 |
| Q5 | Pearson Correlation | 0.071 | .274** | .230** | 0.087 | .281** | 1 |
| | Sig. (2-tailed) | 0.226 | 0.000 | 0.000 | 0.138 | 0.000 | |
| | N | 291 | 291 | 291 | 291 | 291 | 291 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | | |
| *. Correlation is significant at the 0.05 level (2-tailed). | | | | | | | |

**Key Correlations and Their Interpretations**

1. **Investment Experience vs. Awareness and Understanding Statements**:

- **Familiarity with ETFs**: r= 0.186, p<0.01r = 0.186, p < 0.01r=0.186, p<0.01
  - There is a small but statistically significant positive correlation between investment experience and familiarity with ETFs. This suggests that more experienced investors are slightly more likely to be familiar with the concept of ETFs.
- **Understanding Differences Between ETFs and Mutual Funds**: r=0.146 p<0.05r = 0.146, p < 0.05r=0.146, p<0.05
  - A small, significant positive correlation indicates that more experienced investors tend to better understand the differences between ETFs and mutual funds.
- **Knowledge of ETF Trading**: r= −0.019, p>0.05r = -0.019, p > 0.05 r= −0.019, p>0.05

    - The correlation is very close to zero and not significant, indicating no relationship between investment experience and knowledge of how ETFs are traded on the stock exchange.

- **Awareness of Different Types of ETFs**: r=0.058, p>0.05r = 0.058, p > 0.05r=0.058, p>0.05
    - The correlation is positive but not significant, suggesting no strong relationship between investment experience and awareness of different types of ETFs.
- **Understanding Benefits of ETFs**: r=0.071, p>0.05r = 0.071, p > 0.05r=0.071, p>0.05
    - Again, a positive but not significant correlation, indicating no strong relationship between investment experience and understanding the benefits of including ETFs in an investment portfolio.

**Hypothesis Testing:**

- **Rejected H0:** For "Familiarity with ETFs" and "Understanding Differences Between ETFs and Mutual Funds," indicating a significant positive correlation with investment experience.
- **Failed to Reject H0:** For "Knowledge of ETF Trading," "Awareness of Different Types of ETFs," and "Understanding Benefits of ETFs," indicating no significant relationship with investment experience.

The hypothesis testing suggests that while investment experience is significantly related to some aspects of ETF awareness (familiarity and understanding differences), it does not significantly influence knowledge of ETF trading, awareness of different types of ETFs, or understanding their benefits.

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## IV FACTOR ANALYSIS

- **Objective:** To identify the primary factors influencing investors' decisions to invest in ETFs
- **Hypothesis: Null Hypothesis $H0_2$:** There is no significant relationship between the identified factors and investors' decisions to invest in ETFs.

  **Alternative Hypothesis $H_2$:** There is a significant relationship between the identified factors and investors' decisions to invest in ETFs.

### 4.8 Table showing Communalities

| Communalities | | |
|---|---|---|
| | Initial | Extraction |
| Rate the following statements with the agreeability. [I am satisfied with the performance of ETFs in my investment portfolio.] | 1.000 | 0.602 |
| Rate the following statements with the agreeability. [I believe ETFs offer good value for the cost.] | 1.000 | 0.739 |

The communalities table indicates how much of the variance in each variable is explained by the extracted factors. A communality closer to 1 suggests that the variable is well-represented by the factors.

- **Factor 1**: Performance of ETFs influence my decision to invest in ETFs: 0.602
- **Factor 2:** ETFs' ability to provide diversification influences my investment choices: 0.739

 

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### 4.9 Table showing Total Variance Explained

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings |
|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total |
| 1 | 2.044 | 40.888 | 40.888 | 2.044 | 40.888 | 40.888 | 1.779 |
| 2 | 1.059 | 21.177 | 62.065 | 1.059 | 21.177 | 62.065 | 1.534 |
| Extraction Method: Principal Component Analysis. | | | | | | | |

1. **Factor 1: Performance of ETFs influence my decision to invest in ETFs** (40.888 % of variance); Likely represents a combination of factors related to the practical benefits and ease of investment in ETFs. This includes low expense ratios, ease of trading, and the availability of information and research. Investors might see these as operational efficiencies and accessibility factors.
2. **Factor 2: ETFs' ability to provide diversification influences my investment choices** (21.177% of variance); Likely represents factors related to the strategic benefits of ETFs, such as diversification and tax efficiency. Investors might view these factors as enhancing the overall value and performance of their investment portfolio.

**Hypothesis Testing**

**Reject the Null Hypothesis (H0)** and **accept the Alternative Hypothesis (H1)**: The factor analysis results show that There is a significant relationship between the identified factors and investors' decisions to invest in ETFs. The factors are performance and diversification ETFs stocks.

 

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## V ONE WAY ANOVA

- **Objective:** To analyze investor satisfaction and perceived value of ETFs in portfolio management.
- **Hypothesis: Null Hypothesis $H0_3$:** There is no significant relationship between the inclusion of ETFs in a portfolio and investor satisfaction and perceived value of ETFs in portfolio management.

  **Alternative Hypothesis $H_3$:** There is a significant relationship between the inclusion of ETFs in a portfolio and investor satisfaction and perceived value of ETFs in portfolio management.

### 4.10 Table showing One way ANOVA analysis

**ANOVA**

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| Rate the following statements with the agreeability. [I would recommend investing in ETFs to other investors.] | Between Groups | 9.631 | 3 | 3.210 | 7.167 | <.001 |
| | Within Groups | 128.999 | 288 | .448 | | |
| | Total | 138.630 | 291 | | | |
| Rate the following statements with the agreeability. [I feel confident in managing ETFs within my investment portfolio.] | Between Groups | 10.480 | 3 | 3.493 | 6.431 | <.001 |
| | Within Groups | 156.438 | 288 | .543 | | |
| | Total | 166.918 | 291 | | | |
| Rate the following statements with the agreeability. [I believe ETFs offer good value for the cost.] | Between Groups | 2.905 | 3 | .968 | 1.702 | .167 |
| | Within Groups | 163.848 | 288 | .569 | | |
| | Total | 166.753 | 291 | | | |
| Rate the following statements with the agreeability. [ETFs have helped me achieve my investment goals.] | Between Groups | 6.923 | 3 | 2.308 | 3.194 | .024 |
| | Within Groups | 208.091 | 288 | .723 | | |
| | Total | 215.014 | 291 | | | |
| Rate the following statements with the agreeability. [I am satisfied with the performance of ETFs in my investment portfolio.] | Between Groups | 4.724 | 3 | 1.575 | 4.209 | .006 |
| | Within Groups | 107.769 | 288 | .374 | | |
| | Total | 112.493 | 291 | | | |

**ANOVA Results Interpretation:**

1. Rate the following statements with the agreeability. [I would recommend investing in ETFs to other investors.]
   - **F (3, 288) = 7.167, p < 0.001**

- Since the p-value is less than the significance level (0.05), we reject the null hypothesis. This indicates a significant relationship between the inclusion of ETFs in a portfolio and the likelihood of recommending ETFs to other investors.

2. Rate the following statements with the agreeability. [I feel confident in managing ETFs within my investment portfolio.]
    - **F (3, 288) = 6.431, p < 0.001**
    - Since the p-value is less than the significance level (0.05), we reject the null hypothesis. This indicates a significant relationship between the inclusion of ETFs in a portfolio and confidence in managing ETFs within the investment portfolio.
3. Rate the following statements with the agreeability. [I believe ETFs offer good value for the cost.]
    - **F (3, 288) = 1.702, p = 0.167**
    - Since the p-value is greater than the significance level (0.05), we fail to reject the null hypothesis. This indicates no significant relationship between the inclusion of ETFs in a portfolio and the belief that ETFs offer good value for the cost.
4. Rate the following statements with the agreeability. [ETFs have helped me achieve my investment goals.]
    - **F (3, 288) = 3.194, p = 0.024**
    - Since the p-value is less than the significance level (0.05), we reject the null hypothesis. This indicates a significant relationship between the inclusion of ETFs in a portfolio and the belief that ETFs have helped achieve investment goals.
5. Rate the following statements with the agreeability. [I am satisfied with the performance of ETFs in my investment portfolio.]
    - **F (3, 288) = 4.209, p = 0.006**

- Since the p-value is less than the significance level (0.05), we reject the null hypothesis. This indicates a significant relationship between the inclusion of ETFs in a portfolio and satisfaction with the performance of ETFs in the investment portfolio

**Hypothesis Testing Conclusion:**

- **Reject the Null Hypothesis (H0)** for the statements related to recommending ETFs to others, confidence in managing ETFs, achieving investment goals, and satisfaction with ETF performance.
- **Fail to Reject the Null Hypothesis (H0)** for the statement related to the perceived value for the cost.

Overall, the results support the alternative hypothesis (H1) that ETFs play a significant role in investor satisfaction and perceived value in portfolio management for most aspects but not all.

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# CHAPTER 5

# FINDINGS, SUGGESTIONS AND CONCLUSION

## 5.1 FINDINGS

- The mean age (2.09) suggests a young sample, likely students or early-career individuals.
- Gender data indicates a coding or transformation issue with a mean value of 1.66.
- Mean investment experience is moderate (2.69 years), with half the sample having three or more years.
- Mean annual income (2.32) suggests relatively low income levels.
- Low variability in data as indicated by small standard deviations.
- Age distribution: Majority (53.42%) are aged 30-40 years, indicating a predominantly younger demographic.
- Gender distribution: Higher proportion of females (66%) compared to males (34%).
- Investment experience: Majority (73.87%) have 1-6 years of experience.
- Annual income distribution: Majority (80.23%) earn between ₹10,00,001-₹20,00,000.
- High internal consistency in survey items (Cronbach's Alpha = 0.836).
- Significant positive correlations between investment experience and certain aspects of ETF awareness (e.g., familiarity with ETFs).
- PCA identified two main factors influencing ETF investment decisions are performance and diversification of ETFs.
- ANOVA results: Significant relationships between ETF inclusion play a significant role in investor satisfaction and perceived value in portfolio management.

 