

**UNIVERSITY OF MUMBAI**



**A PROJECT ON**

**“A COMPARATIVE STUDY ON TRADING APPS (ZERODHA & ANGEL ONE)”**

**Submitted to**

**University Of Mumbai for partial completion of degree of**

**Bachelor in Commerce (Accounting & Finance)**

**Under The Faculty of Commerce**

**BY**

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**UNDER THE GUIDANCE OF**

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NAAC Re-Accredited 'A' Grade (3rd Cycle)

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## **CERTIFICATE**

This is to certify that **Mr. Maharaja Mayandi Konar** has worked and duly completed his Project Work for the degree of Bachelor in Commerce (Accountancy & Finance) under the Faculty of Commerce in the subject of Accountancy & Finance and his project is entitled **"A Comparative Study on Trading Apps (Zerodha & Angel One)"** under my supervision.

I further certify that the entire work has been done by the learner under my guidance and that no part of it has been submitted previously for any Degree or Diploma of any University. It is his own work and facts reported by his personal findings and investigations.

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## DECLARATION BY LEARNER

I the undersigned **Mr. Maharaja Mayandi Konar**, hereby declare that the work embodied in this project work titled **“A Comparative Study on Trading Apps (Zerodha & Angel One)”**, forms my own contribution to the research work carried out under the guidance of **Dr. Priyanka Mohan**, is a result of my own research work and has not been previously submitted to any other University for any other Degree/ Diploma to this or any other University.

Wherever reference has been made to previous works of others, it has been clearly indicated as such and included in the bibliography.

I, hereby further declare that all information of this document has been obtained and presented in accordance with academic rules and ethical conduct.

Name and Signature of the learner

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**Name and Signature of the Guiding Teacher**

**Dr. Priyanka Mohan**

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## **Chapter-1**

### **INTRODUCTION**

#### **1.1 Abstract**

Online trading Apps have gained significant momentum in the years that went by. It is an ever-growing evolving field where millions of investors engage themselves in trading through different mobile-based applications. These applications are service-providing platforms for online monetary investment. This research is about the comparison between two leading investment apps Zerodha and Angel One, studying their details and how investors engage themselves in these apps. It also puts light on other dimensions such as preferential factors, user interface, and so on. This is descriptive research carried out to gain more knowledge on this topic in depth.

#### **1.2 About Trading App**

What is a Trading app?

A software program used to trade securities is known as a trading app. Using a financial intermediary, such as an online broker, enables investors to open, cancel, and maintain market positions online. Brokers sometimes provide online trading apps for free or at a concession in exchange for keeping an account funded and/or performing a certain number of deals each month. The top trading app combines powerful features with reasonable costs.

Retail trading continues to find a home at regional stock exchanges and offices as online trading's influence on the modern trading market spreads. Throughout the past twenty years, there has been a definite trend towards online trading over offline trading due to the advancement of computers and the internet. Online trading offers a number of advantages that are more difficult to achieve offline.

Stocks and other financial products are now much less expensive. Online platforms appeal to a big number of traders and investors since they provide a far more economical experience. The absence of the majority of middlemen in online trading, which lowers the added cost of commissions on these products, has made this possible.

### **1.3 Online Trading Vs Offline Trading:**

Since the days when traders had to physically go to a broker's office to execute trades, trading has advanced significantly. There are now two ways to trade: online and offline.

#### **1.3.1 Advantages of Online Trading:**

- The convenience that online trading provides is among its most important benefits. You can trade whenever you choose and from any location thanks to accessibility that is available around the clock, providing you more control over your finances.
- Speed and efficiency are key considerations when comparing online versus offline trading. The two main benefits of online trading are speed and efficiency. Trades can be quickly and easily executed, enabling traders to profit from market opportunities as they materialize.
- Compared to traditional brokerage firms, online trading offers a number of cost-saving advantages. First off, paying broker fees is no longer necessary with internet trading. As a result, you can keep a larger portion of your earnings and increase your market investments. Secondly, lower trade commissions are frequently available on Internet trading platforms.

#### **1.3.2 Disadvantages of Online Trading:**

- Reliable internet connectivity is necessary for online trading. You might not be able to make trades or get market updates without it. However, some investors may have serious concerns about the vulnerability of the internet and technology to cyberattacks and system breakdowns. Your ability to execute trades can be constrained if there's a technical issue.
- Making errors in online trading is possible. It can be difficult to review deals before they are done, and there is a chance that trades will be made based on inaccurate information.

### **1.3.3 Advantages of Offline Trading**

- Offline trading offers individualized help from a broker in the form of one-on-one assistance. You have the chance to develop a relationship with your broker while also receiving expert guidance and market research from them
- You have more control over your trades when trading offline. You get immediate access to market updates and news, and you may place trades over the phone or in person.
- Trading in person provides the chance to learn more about the market. You may communicate with other traders and watch live trading sessions and events to gain firsthand market knowledge.

### **1.3.4 Disadvantages of Offline Trading**

- Working with a broker who levies higher trade commissions and broker fees is necessary for offline trading. This could reduce your earnings and make it more difficult to achieve your financial objectives.
- The difficulty in accessing offline trading is another issue. It can be inconvenient and time-consuming to physically travel to a brokerage branch to do offline trading.
- Lastly, obsolete information may also be a result of offline trade. Your investment decisions may be impacted if you don't immediately have access to the most recent market information and news.

## 1.4 The Rise in Online Trading:

Over the past ten years, established processes have been altered by dynamic changes, and stock market trading is no exception. A few years ago, there were just a few online dealers, but today, the number has significantly increased. The tremendous shift in consumer behavior and marketing operations in the stock market make it difficult to determine the real numbers, though. Let's look at a few of the factors that fueled internet trading's development and growth.

### Factors that supported this change:

- **A new trend:** Something new that receives widespread support develops a trend, and trends must be followed. Online trading became very popular because it offered investors a new option to access the stock market. Online trading continues to be appealing due to its effectiveness and accessibility.
- **Less dependence on brokers:** Due to the advent of online trading, investors and merchants are no longer dependent on middlemen (brokers). Trading used to be predominantly mediated by agents who also provided tips. Online trading, on the other hand, has made the results of market research easily accessible to customers, enabling them to make their selections.
- **Transparent and updated information:** With websites and/or online trading apps, information is readily available to traders and is updated in real-time. The gap between market activity and the time it takes traders to learn about it is shortened by this information. This has greatly increased the appeal of Internet trading.
- **Trading for all:** Stock trading was a niche sector before online trading became common and popular. The majority of individuals avoided the stock markets while others were not even aware of them. Internet trading has made its doors open to anyone and aroused the public's attention.
- **Change in investment norm:** Although short-term investments have historically produced greater profits, long-term investments have historically been thought to be lucrative due to slow changes in market factors, as well as the nature of the market and trading procedures. Because it is simple to use,

has the least amount of time lag, and allows for real-time trading, online trading is best suited for quick and short-term investments.

The capital markets are a dynamic area where new components are always being added. The expansion of online trading has increased market volatility, which is reflected even in other countries economies.

### **1.5 Main Types of Trading:**

**A) Day Trading:** One of the most popular methods of trading on the stock market is day trading, often known as intraday trading. Although intraday trading is when professional traders get the majority of their gains, it is also the riskiest. On the same day, day traders buy and sell equities or ETFs (Exchange-Traded Funds). Day trading entails closing positions on the same day, so there are no Demat transaction fees to pay.

To place precise transactions, day traders examine the momentum of stocks, indices, or ETFs. Either they buy initially and sell afterward, or they first sell and then buy. Nonetheless, it is advised against trading on margin if you are a beginner trader. If the trade turns out badly for you, margin trading could multiply your losses.

**B) Positional Trading:** Positional traders analyze a stock's momentum before to making a purchase, just like day traders do. Positional trading is not the same as day trading in that you cannot sell first and then buy. This medium-term approach is for investors with the fortitude to ignore short-term price volatility in favor of long-term rewards. Every time a positional trader sells an investment, Demat transaction fees are due.

To determine the entry and exit positions, some positional traders analyze the stock's price movement. In order to comprehend the stock's trajectory, they create support and resistance lines on a chart. Some positional traders use technical indicators to predict the direction of the stock in the future. RSI, MACD, Volume, Moving Average, Simple Average, and other well-known technical indicators are only a few.

**C) Swing Trading:** In order to identify the waves of price swings, swing traders typically analyze the chart for varied lengths of time, such as 5 minutes, 15 minutes, 30 minutes, 1 hour, or even a day chart. Swing trading may cross over with positional trading or day trading. Swing trading is frequently regarded by investors and traders as the most challenging form of stock market trading.

**D) Long-Term Trading:** Long-term trading is the most secure of the various trading strategies. More cautious investors would benefit from this style of trading than more aggressive ones. The growth potential of a stock is examined by a long-term trader by reading the news, analyzing the balance sheet, researching the sector, and learning about the economy. They have no problem keeping stocks for many years, decades, or even their entire lives.

There are two categories of long-term stocks: growth and income. Growth stocks are owned by businesses that do not distribute dividends to shareholders. Any additional money is invested for the benefit of the business. In contrast, companies that consistently pay out healthy dividends are known as income stocks.

### **1.6 Growth of Trading Apps in India**

On April 1st, 2000, internet trading began in India, with as many as 79 members requesting permission to do so. The very first company to do so was Geojit Securities. The National Stock Exchange was the first stock exchange in India to launch an internet-based trading system for its members on February 1st, 2000. The SEBI Committee on Internet-based Securities Trading and Services has given registered stockbrokers permission to utilize the Internet as an order routing system to execute transactions on behalf of their clients. The SEBI Committee on Internet-based Securities Trading and Services has given registered stockbrokers permission to utilize the Internet as an order routing system to execute transactions on behalf of their clients.

For the past few years, many people have used stockbroking companies' mobile trading applications. However, due to the lockdown, there has been a significant increase in stock trading and investment activity on mobile phones, which increased to 45% in May 2020 from 24% the previous month. Stock brokerage apps like Zerodha and Upstox have seen a 20% increase in first-time investors, mostly under the age of 30 years, with 1.2 million new accounts opening at CDSL in March and April.

The Indian depositories registered a staggering 1.51 crore new investors over the past 1.5 years. Thanks to free educational websites and cutting-edge trading apps that make investing easy and approachable while allaying worries about trading and investing, capital markets are now more appealing and accessible to a wider audience. Even cautious investors have begun looking into new products, despite the fact that the younger generation in India is not afraid to take on greater risk in exchange for the anticipated profits.

## 1.7 Top 5 Trading Apps in India:

**1) Zerodha:** Zerodha accounts for about 15% of all Indian retail trading volume and has over one crore active clients. Due to its solid technological foundation, this program is suggested for both novice and experienced traders and investors.

Zerodha The company's internal flagship mobile trading software program is called Kite. A market watch feature, advanced charting with more than 100 indicators, advanced order types like cover orders and good till triggered (GTT) orders, as well as quick order placements, are already available on the Kite 3.0 web platform.

### Key Elements

- Advanced charting, a sophisticated user interface, high-speed market data streaming, and extensive analytics on both individual transactions and the entire portfolio are all available.
- More sophisticated tools including the "view breakdown" that shows the brokerage and STT fees.
- Brokerage-free free equity delivery trading.
- Commission-free direct investments in mutual funds (MF).
- Offers intraday trading leverage of up to 20x.
- With IDFC First Bank, it is possible to convert it into a 3-in-1 account (demat-trading-bank account). It also permits IPO applications to be submitted directly through the app.

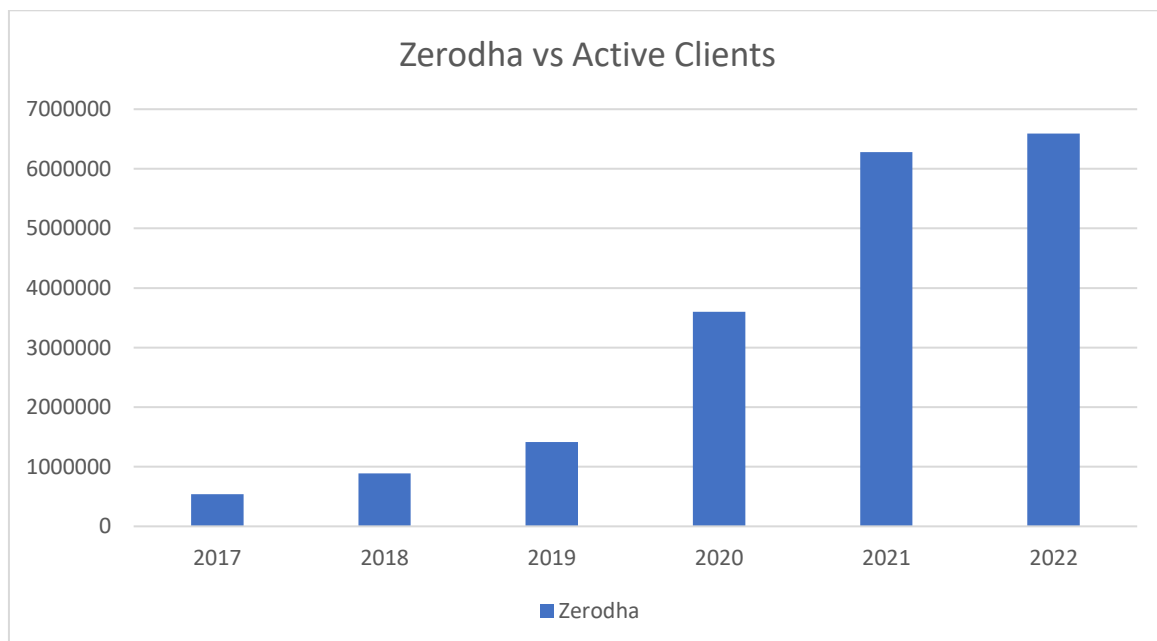


Figure 1.7.1 Zerodha vs Active Clients



**2) Upstox Pro:** Well-known discount broker software, Upstox PRO is supported by notable investors including Tiger Global Management and Indian billionaire Ratan Tata. With advanced tool options including trading view and charts IQ libraries, it offers trading and investment chances in stocks, currencies, commodities, and mutual funds. These are advised for seasoned and advanced investors.

### Key Elements

- Trade and invest in equities, derivatives, currency futures and options, and futures and options on commodities.
- Permits investment in MFs, IPOs, and gold.
- There is no commission cost for investments in MFs.
- Provides sophisticated features like advanced charting, market monitor, and live stock quotes.
- Use the "TFC" tool to trade straight from charts.
- Provides intraday trading leverage of up to 5X.
- More than 100 technical indicators with advanced charting tools.
- Availability of NSE cash, futures, options, and a range of currencies.

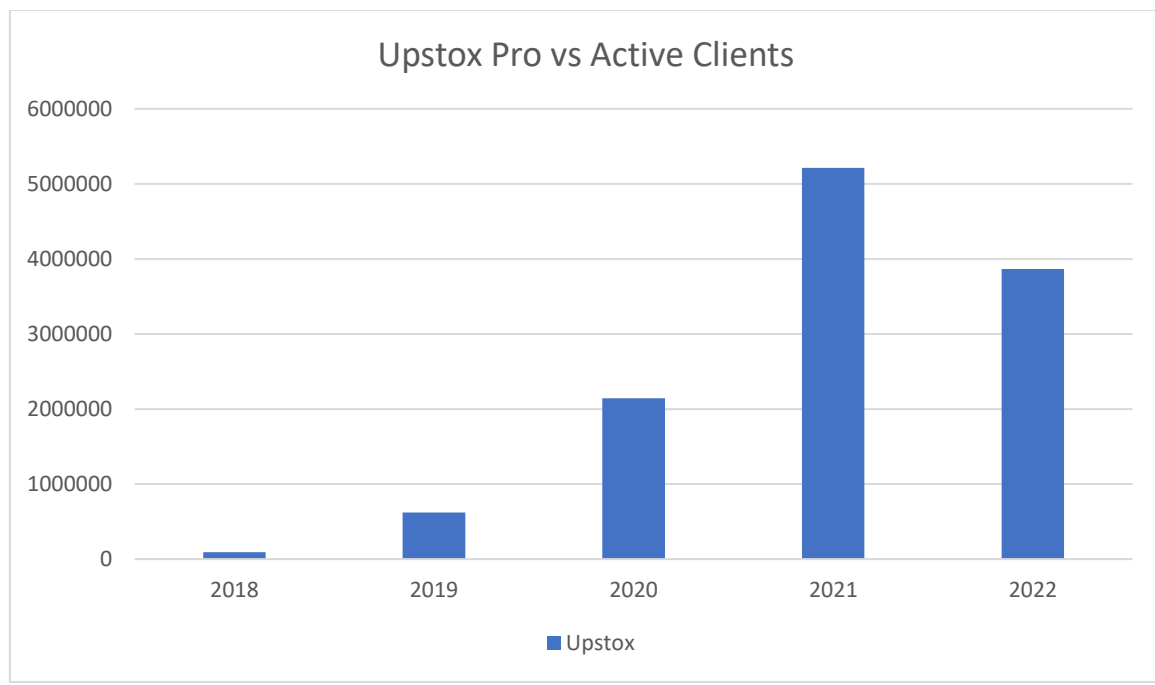


Figure 1.7.2 Upstox vs Active Clients

**3) 5 Paisa:** 5 Paisa is a trading app that is popular in India and is accessible on both Apple and Android devices. Both traders and investors really like using this program. It offers a wide range of goods, including stocks, mutual funds, commodities, and money. Even the greatest trading apps do not provide free access to news, research, advisory, and blogs like 5paisa do.

### Key Elements

- Simple and clear user interface
- Quick access to order books and watchlists.
- Offers research advice depending on the user's particular objectives.
- Provides instant access to stock quotes, market statistics, and price updates.
- Offers extensive charting and multi-asset watchlist tool options.
- Introduced basket orders, allowing customers to place several orders with only one click.
- Permits ownership of US stocks.
- The option to establish an infinite number of price alerts and watchlists.

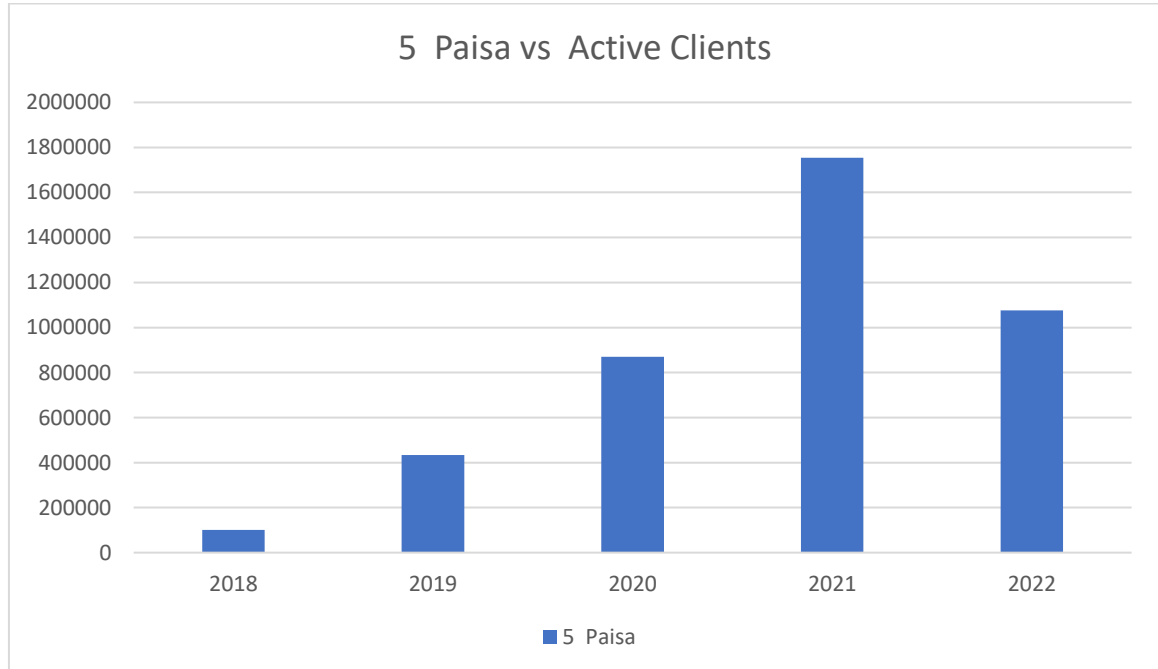


Figure 1.7.3 5 Paisa vs Active Clients

**4) Kotak Securities:** There are no account opening costs for those who want to open a trading account with Kotak Securities. Additionally, it offers special discounted rates to investors under the age of 30. The procedure for opening an account is simple and quick, requiring only a few steps.

Via the Kotak trading app, one may transact in stocks, initial public offerings, derivatives, mutual funds, currencies, and commodities in addition to international investing possibilities. The iOS, Android, and Windows versions of the software all have a well-designed, user-friendly interface. The app also includes extra features including live portfolio tracking, margin funding, and stock charting options.

#### Key Elements

- Online trading in equity cash, equity derivatives, and currency derivatives;
- Online courses and research papers.
- There are no brokerage costs for intraday trades.
- Trading on margin is possible.
- Common trading resources include the news section, stock charts, gainers and losers, stocks by volume, watchlist, etc.
- Customers can select from a variety of packages, including trade-free, trade-free youth, and others.
- Access to live research calls and top stock choices, which is helpful for novice investors.

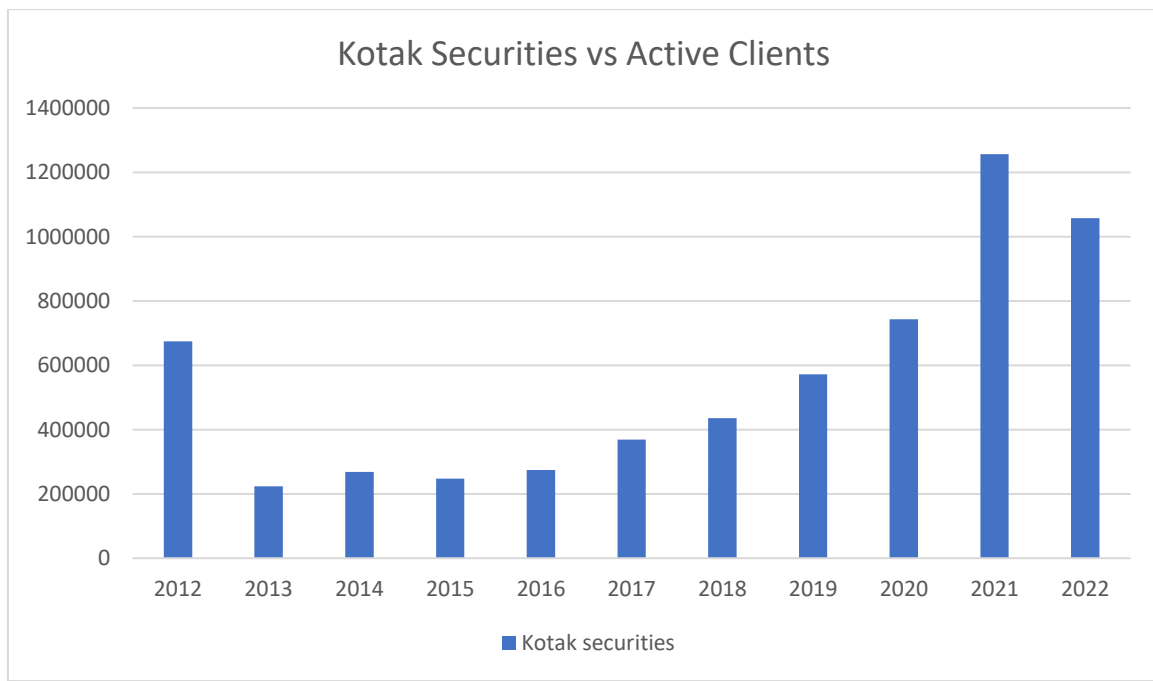


Figure 1.7.4 Kotak Securities vs Active Clients

**5) Angel Speed Pro:** Developed by full-service stock broker Angel Broking, Angel Speed Pro is trading application software. This trading program is renowned for offering its users an intuitive single-window trading interface coupled with trade monitoring tools that are in-depth. It is also renowned for its quick order processing and real-time stock updates.

### Key Elements

- Offerings include trading in equities, commodities, and currencies as well as derivatives, margin trading, and mutual funds.
- Offers real-time rate streaming to make trading possible right away.
- With a portfolio of high-end equities built in, evaluate and analyze all investments at once.
- Get instantaneous and real-time news flashes and reports;
- Have the option of viewing and updating live market data in an excel spreadsheet.

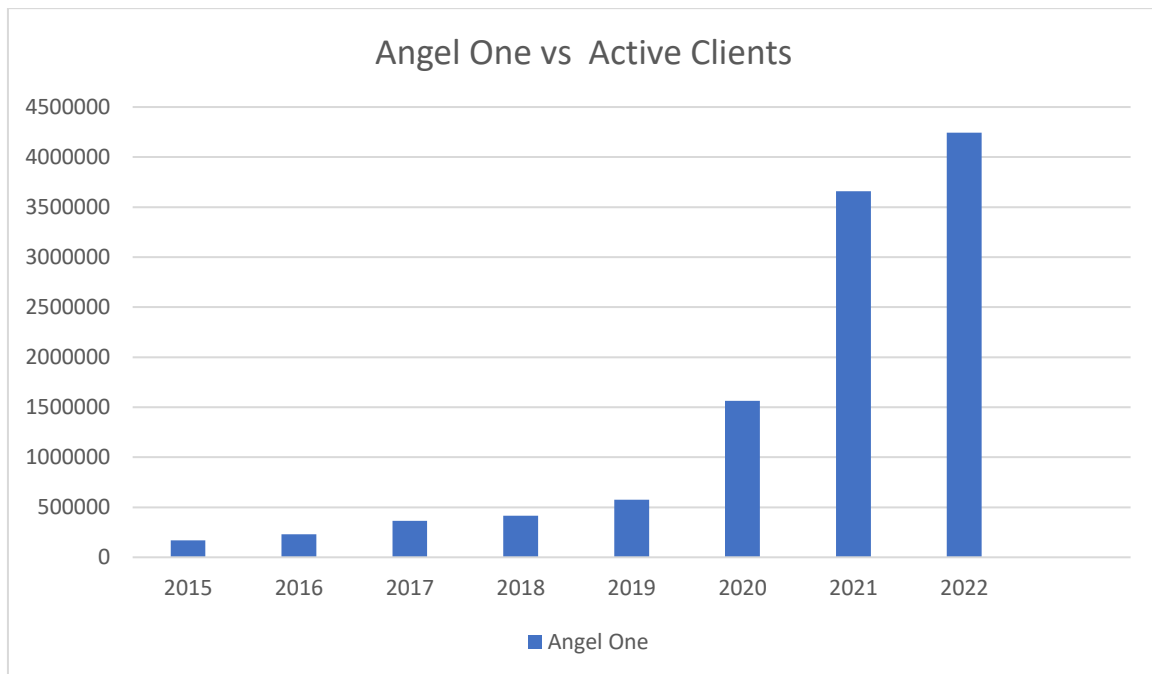


Figure 1.7.5 Angel One vs Active Clients

## **1.8 Types of Investments Available in Trading Apps:**

**1) Equity Shares:** Stock is another name for equity shares. An investor purchases a small piece of the business in the hope of making money down the road. You become a shareholder of the corporation when you own stock. You are now qualified to share in the company's gains and losses. Each shareholder is granted the ability to vote on important corporate decisions. Equity shareholders may profit from dividends paid out by the company in addition to any value increase. Larger, more established businesses are typically more likely to pay dividends and bonuses since they have more assets and available cash.

### **Advantages:**

- Equity shares are extremely liquid and can be sold at any moment.
- The dividend paid to shareholders increases in direct proportion to the issuing company's profitability.
- In addition to the yearly dividend, shareholders also gain from the increase in share value, which occurs over time.
- All shareholders have the right to vote, allowing them to determine how the management should act in times of crisis.

### **Disadvantages:**

- The payment of a dividend is not guaranteed to occur each year. The effectiveness of the business determines this.
- Equity holders frequently hold a small proportion of a company's entire share capital or are dispersed widely among them. For shareholders to exert any control over an organization's benefits in these circumstances may be challenging.
- In terms of risk to the issuing corporation, equity shareholders are most exposed. The gains made by these shareholders typically decline as a result of market value fluctuations.

**2) Positional Shares:** Position trading is a technique in which a trading position is held for an extended length of time (often weeks or months) in order to generate profit. In position trading, a trader typically has a long-term outlook and maintains the position despite short-term fluctuations. The positions could belong (purchase the asset first) and be short, for instance (selling the asset first). This type of trading is also known as trend following, and traders typically open positions on long-term charts (weekly, monthly).

**Advantages:**

- You don't need to always keep an eye on the market.
- The potential for your investment to generate profits is unaffected by short-term unfavorable trends and volatilities.
- You can employ a variety of trading techniques to produce the highest yields.
- Positional trading selects high-quality stocks using both fundamental and technical analysis, ensuring profitable returns.

**Disadvantages:**

- Unlike other trading tactics, position trading necessitates long-term capital.
- Position trading calls for abilities in asset fundamental analysis, which many technical analysts lack.
- Because stop losses in position trading are broader than in other trading techniques, the cost of errors is higher.

**3) Bonds:** Bonds are a type of debt security that resembles an IOU. Bonds are issued by borrowers to attract capital from investors ready to extend a loan to them for a specific period of time.

When you purchase a bond, you are making a loan to the issuer, which could be a corporate, government, or municipality. In exchange, the issuer agrees to pay you an agreed-upon interest rate over the course of the bond's existence and to refund the bond's principal when it "matures," or becomes due, after a predetermined amount of time.

**Advantages:**

- Bonds Provide Fixed Returns to Investors.
- As compared to other investments, bonds are less risky.
- Bonds are a better financial investment than banks.
- Bond Ratings Consider Risk Level.

**Disadvantages:**

- Bonds Provide Less Return Than Equities
- Bond Defaults Are Possible
- Bonds are Less Liquid Than Stocks
- Rate of Interest Risk

- Risk of Prepayment

**4) Mutual funds:** A mutual fund is a type of investment vehicle in which the funds contributed by numerous investors are combined to form a portfolio of investments. According to its declared investment purpose, a mutual fund scheme will invest in a variety of marketable assets. While some mutual fund schemes may only invest in one asset class, such as equities or debt, others may invest in two or three asset classes.

**Advantages:**

- Mutual Funds are Managed by Asset Managers Professionally
- The Risk Gets Reduced through Diversification
- Liquidity
- Mutual Funds are Low Cost

**Disadvantages:**

- Diversification of Funds
- Fluctuating Returns
- Diversification of Funds

## **1.9 History of Zerodha**

Nithin Kamath, a co-founder of Zerodha, used to trade in the morning hours while working nights in a call center before founding Zerodha. He began trading when he was 17 when a friend exposed him to the stock market.

The markets plummeted in 2001 and 2002, and despite the fact that he had made a sizable sum of money through stock trading, he lost it all. Over time, he came into possession of a check to manage his finances from a foreign HNI. At some point, he became a sub-broker for Reliance Money and earned a fortune by bringing in significant clients.

Nevertheless, after the second market meltdown in the midst of the global financial crisis in 2008–2009, investors once more lost a sizable sum of money. After engaging in full-time trading for more than ten years, this Maverick made the decision to enter the brokerage industry because he felt the moment had come to offer a unique set of stockbroking services that he had never encountered in his ten years of trading.

When he originally considered creating Zerodha, he believed that digitization and an easily navigable web platform were urgently needed. Nitin Kamath made the additional observation that the high brokerage fees applied to the transactions are the reason why the younger generation is reluctant to begin trading. His goal was to establish himself as an internet broker who put customers' needs ahead of profits by utilizing the newest technologies.

The Sanskrit term Rodha, which denotes obstructions, is the root of the word Zerodha. Zerodha's name translates to "No Obstructions." As a result, the founder wanted to offer a low-fee trading platform. To contribute to the ecosystem of the capital markets, he sought out younger, more technologically savvy clients.

He claimed that he preferred a platform that was more like Google in terms of usability than one that was more like Yahoo. Along with his younger brother Nikhil, he founded Zerodha when they felt the need to alter the system. The rest is history—or rather, a case study for everyone.



## **1.9.1 Marketing Strategy of Zerodha**

### **Blue Ocean Strategy**

Zerodha was not the world's first-ever discount brokerage company; it was the Charles Schwab Corporation in 1975 in the US, a discount brokerage model which significantly reduces the commission charged for transactions, enabling the masses to invest. Zerodha used this already successful solution and customized it to the Indian markets, addressing the pain points of the existing services, and providing an attractive option to investors. It also addressed the non-customers of the industry—people refusing to enter the market due to various reasons, including complicated offerings.

Zerodha established online discount broking in India in 2010, when just 1.4% of Indians traded on the country's capital markets. It was able to provide a value proposition for the previously untargeted buyer groups in addition to serving the needs of the current investors. It was also successful in reducing the commission fee. This is what value innovation is referred to as. Value innovation, in the opinion of Renée Mauborgne and W. Chan Kim, is the simultaneous pursuit of distinction and low cost, resulting in an increase in value for both customers and the business.

In the past, investors suffered from a lack of cost transparency, paying for unnecessary services, not understanding how the markets operated, and intimidating charge schedules for the services provided. Zerodha's initial target group included them, but it also wanted to concentrate on the non-customers who were still unmet needs. Three layers can be created with them. Beginner investors who were aware of their possibilities but were unable to afford the current products would come first, followed by traders who were dissatisfied with the current industry offerings (services offered by various firms). The second category would include those who are risk cautious and have long trusted in financial products like fixed deposits, and the final category would include those who are "unaware" and have no knowledge of investment.

The cost of offline branches was decreased when everything went online. Using technology, it accelerated trading and executions. The fees imposed on investors were eliminated or significantly decreased. It launched many financial literacy initiatives like "Varsity" and "TradinQnA," a community for traders to post their queries. It developed a number of innovative features, including Kite, a self-service broking platform, and automated fund upgrades. It also provided cutting-edge charting and analysis tools like "Pi" and "Q." It created a book called Rupee Tales that taught kids about financial investments in order to address the awareness issue.

The main attraction of Zerodha has been its cost structure. To ensure that no false accounts were created, the registration price was kept to a minimum. Zerodha proposed a fixed fee of Rs 20 each transaction. It reduced

complexity, increased returns, and encouraged a huge number of new client signups. They chose zero pricing for long-term equity trading. Due to high operational costs and verticalization, the competition was unable to respond to this move. Or perhaps they did not perceive this newcomer as a threat due to the unattractiveness of online mode at that time.

In 2010, the Kamath brothers imagined a Zerodha with a future similar to Jeff Bezos' 1994 Amazon. From a meager 4 percent in 2007, internet penetration was on track to reach 45 percent in 2021. In addition, there were going to reach 750 million smartphone users in India, with roughly 34% of them being between the ages of 25 and 34. Debit cards, internet banking, and UPI accessibility to financial services also significantly contributed to the simple onboarding of customers. India now has 70 million investors overall, up from 20 million in 2012. Yet without Zerodha knowing what lay ahead, nothing was possible.

Zerodha has recently received in-principal approval from Sebi to start mutual funds. To grow sustainably while keeping the differentiation intact, the company would have to focus on its customer experience in delivery and service now. Being the fastest in terms of account opening, trading, and other services would distinguish it from the others.

### **1.9.2 Products & Services Offered by Zerodha**

- **Trading and Investing:** With its online trading platform, Zerodha provides trading and investing services in a variety of financial products, including stocks, futures, options, commodities, currencies, and bonds.
- **Mutual Funds:** With its online platform, Zerodha allows customers to invest in mutual funds. It provides zero-commission direct mutual funds, making mutual fund investing affordable.
- **Initial Public Offerings (IPOs):** Zerodha offers its clients the option to invest in IPOs online.
- **Bonds and government securities:** Zerodha provides a platform for investing in bonds and government securities, including corporate bonds, tax-free bonds, and RBI bonds.
- **Education and Training:** To assist its customers in learning about different financial instruments and trading methods, Zerodha provides a variety of educational materials and training programs.
- **Trading Tools and APIs:** To assist its clients with trend analysis, the development of trading strategies, and trading automation, Zerodha offers a variety of trading tools and APIs.
- **Investment Advisory:** To assist its clients in making wise financial choices, Zerodha provides investment consulting services.

## **1.10 History of Angel One**

In the year 1996, Angel One began operations as a conventional stock brokerage company. They have always believed that having empathy for their customers is crucial. The “what the consumer wants” has always been the company’s first priority, followed by finding the best technology to meet those needs. It is how they began their journey and usage of technology, always putting the client first. This helped them expand their geographic reach across the nation.

They gradually transformed into a digital-first business to offer our clients customized financial journeys through a single app. Angel One started its “Digital Journey” in 2019 by providing our clients with a full-service digital investment solution.

With their technological innovation and ongoing focus on consumer needs and wants, they successfully penetrated new markets and added millions of new clients, including those from tier-2 and tier-3 cities. As of December 31, 2021, Angel One Company was the largest listed retail brokerage house in India based on the number of active clients.

The absence of ethics and openness in this sector was the primary factor that inspired Mr. Dinesh D. Thakkar to create this company house. He also aimed to create a company that was entirely open, focused on technology, and welcoming to clients. This paved the door for Angel One, which is currently among India’s top wealth management and stock brokerage firms.

Together with these organizations, he serves on the boards of Angel Fincap Pvt Ltd., Angel Insurance Brokers & Advisers Pvt Ltd., Mimansa Software Systems Pvt Ltd., and Angel Wellness Pvt Ltd.

### **1.10.1 Marketing strategy of Angel One**

Large, unexplored Tier 2, 3 and 4 cities in New India are where the country's real growth story is. All FinTech businesses functioning in the market must encourage and educate people to enter the world of stock markets. Vishesh Sharma, Head of Content Marketing, PR, and Startups at Angel One, had this in mind specifically when developing a new content marketing approach.

A 58% boost in organic leads, a 44% increase in organic traffic from content initiatives, and a 5.18% increase in time spent on the page were the results of Angel One's multichannel, multifaceted strategy to delivering outstanding content last year. Also, it caused a 335% increase in engagement, a 104% increase in impressions, and a 231% increase in fan base on YouTube.

It recognized the value of creating a community for each of the varied personas in the FinTech industry through the activities of Angel Academy, a multi-format, multi-lingual, and multi-platform content marketing approach.

The 3H strategy, which focuses on hero content, hygiene content, hub content, and other insights that assist establish a learning-led community, was chosen by the FinTech platform. Due to millennials' preference for consumers above brands, they were able to maximize the effectiveness of their content by taking a community-led strategy.

With the Smart Store, Smart API, seminars, associations, and other partnerships, the community is dominated by technology. This is one of the main characteristics that sets them different from companies that only operate in the equity markets.

To demystify money and assist the new generation of Indians in realizing their financial needs, the platform launched Smart Money, an education portal that offers free stock market-based structured courses for millennials, investors, traders, or just the curious.

Angel One concentrated on intelligent content and created a brand identity by identifying trends and repurposing them. It conveyed brand values and expert knowledge.

In order to gain the first-mover advantage, it also dipped into developing markets like podcasts.

With two of their important products, Smart API and Smart Store, it transformed content marketing into the primary product marketing strategy. Smart API is a free API hub where users may easily set up their own trading platforms. There are currently more than 60,000 registered users, 2 million traded orders, and 500 million requests for the Smart API.

The other important asset is Smart Store, a FinTech app marketplace that Angel One has carefully selected for investors of various experience levels. One can learn algorithmic trading using the platform.

According to Angel One, the complexity of the product, people's short attention spans, and educating them about the alleged risk connected with the stock market were the main obstacles it faced while developing a content strategy.

The platform found a way around it by devising a plan to encourage investors and reassure them that the appropriate plan and information might go a long way in assisting them in remaining competitive in the market. In order to reach a wider audience and make the subject more understandable to them, it also publishes content in a variety of regional languages.

It created things like "ShareWale Sharmaji" in an effort to make learning about finance and markets enjoyable.

Angel One's strategy included a voice-ready, video-first approach with vernacular content.

With the launch of the podcast Angel Says, which is available on SoundCloud, Spotify, Google Podcasts, Anchor.FM, and the brand website, it made its first push into audio streaming platforms. In recent times, it has partnered with Gaana.com and Amazon Music to make sure the podcast reaches the correct audience.

To make investment principles simpler and more approachable for young investors, they published a number of videos on YouTube.

The FinTech platform chose Hindi, Gujarati, Marathi, Telugu, Kannada, Tamil, and Malayalam as its languages of communication. According to research, youth from rural and vernacular communities will soon account for more than 60% of India's digital content consumers.

The portal publishes information that is easy to navigate and is geared toward a variety of audience segments, including beginners, women investors, traders, and specialists.

It succeeded to sense the pulse of the millennial generation with the #InvestAndChill campaign. The advertising effort aimed to appeal to this group's language and lifestyle preferences in order to encourage participation in the stock market.

Reaching out to this target group was the focus of Angel One's other major efforts, including #ShagunKeShares for Muhurat Trading during Diwali, #EkNayiShuruaat (New Year campaign), and #BudgetKaMatlab to make Budget announcements simpler.

Organic traffic was attracted via trending blogs, landing pages, etc., while YouTube visibility was boosted through videos. Additionally, it has recently begun producing videos that are specifically focused on initial

public offerings (IPOs), beginning with instructional trailers to pique viewers' curiosity. All audiences are targeted thanks to this combination and the use of websites and apps like Telegram, Instagram, Facebook, and YouTube.

The company's bottom line has been impacted by campaigns like #InvestAndChill and #ShagunKeShares, which have resulted in a 208% increase in brokerage and a 248% gain in orders. This initiative, which ran throughout the Diwali holiday season last year and increased brokerage by 1088%, also activated dormant clients.

### **1.10.2 Products & Services Offered by Angel One**

- **Equity Trading:** Angel One offers a website for trading stocks on the Bombay Stock Exchange and the National Stock Exchange (NSE) (BSE). With the trading platform provided by Angel One, clients can transact in equities, derivatives, and currencies.
- **Commodity Trading:** Angel One provides online trading in commodities such as gold, silver, crude oil, and other commodities on the National Commodities and Derivatives Exchange and the Multi Commodity Exchange (MCX) (NCDEX).
- **Mutual Funds:** Angel One offers a platform for buying mutual funds from top Indian investment houses. Clients can select a variety of mutual funds based on their risk tolerance and investing goals.
- **Initial Public Offerings (IPOs):** Angel One provides online application and tracking services (IPOs). Using the portal provided by Angel One, customers can apply for IPOs and monitor the progress of their applications.
- **Insurance:** Angel One offers insurance products from top Indian insurance firms, including health insurance, term insurance, and automobile insurance.
- **Loans:** Angel One provides a variety of loans, including personal, home, and business loans. Online loan applications are accepted right away for customers.
- **Research and Advisory:** To assist its clients in making wise financial choices, Angel One offers research and advisory services. Through the platform of Angel One, customers can obtain research papers, market insights, and professional suggestions.



### 1.11 Comparison of Zerodha and Angel One vs Active Clients

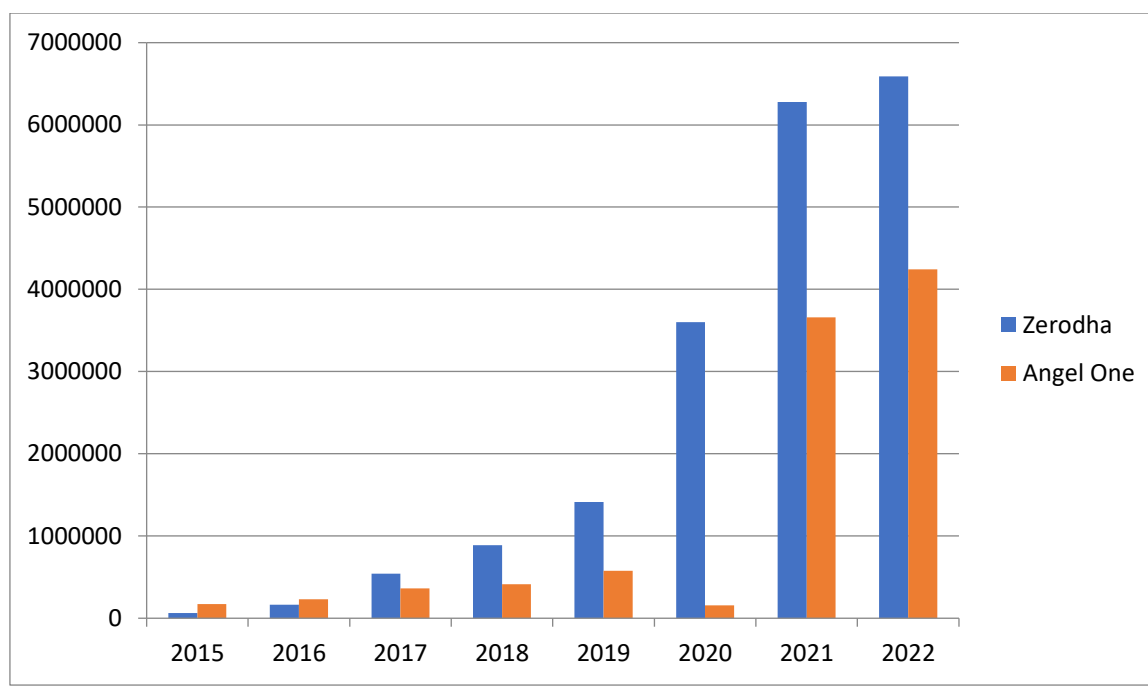


Figure: 1.11 Comparison of Zerodha and Angel One vs Active Clients

Clients for online brokerage firms Zerodha and Angel One has grown dramatically over time. Zerodha had 61,790 clients in 2015, whereas Angel One has 1,70,808 clients. However, in 2016 Angel One had 2,30,194 clients while Zerodha had a customer base of 1,65,586.

The pattern persisted in 2017, with Zerodha overtaking Angel One, which had 3,63,663 clients, with 5,40,905 clients. Zerodha's client increased to 8,87,267 in 2018, while Angel One has 4,14,831 customers. The next year, Zerodha had 14,14,376 clients whereas Angel One had 5,76,414 clients. Zerodha continues to grow its customer base.

Zerodha's customer base skyrocketed to 36,02,074 in 2020, almost tripling the amount of customers it had in 2019. In contrast, Angel One had 15,64,667 customers throughout the same period. Zerodha has 62,77,434 clients in 2021, compared to 36,57,550 for Angel One. Zerodha's customer base increased more in 2022, reaching 65,90,699, while Angel One had 42,44,617 customers.

In general, Zerodha and Angel One have both seen significant growth in the number of their clients throughout the years, with Zerodha seeing the biggest growth in the most recent years.

## **Chapter 2**

### **RESEARCH METHODOLOGY**

The simplest definition of methodology is the study of research methods. Yet, the phrase can also be used to refer to the methods themselves or the logical examination of the underlying premises. A technique is a deliberate process for reaching a particular goal. Usually, this goal is to provide new knowledge or to support preexisting knowledge in the context of the study.

This typically involves a number of steps, including choosing a sample, collecting data from this sample, and analyzing this data. The study of methods includes a detailed analysis and evaluation of various processes.

#### **2.1 Scope of the study:**

This study focuses on the factors that consumers consider before choosing a trading app. This Research Study includes 2 Trading Apps i.e., Zerodha and Angel One. The study also examines how both trading applications performed throughout the preceding accounting year.

#### **2.2 Objectives of the study:**

Research objectives let you focus on the topic of your study and key factors, which help you navigate the research process. The objective of the research is as follows:

- To Determine which trading app is preferable to customers.
- To study why Customers, choose One App over the other.
- To study which App is more profitable.
- To interpret the position of both companies using accounting ratios.

#### **2.3 Type of Study:**

Studies that are descriptive, exploratory, historical, empirical, qualitative, or quantitative are just a few of the numerous types of research that are available.

In order to accomplish its objectives, this research has used a descriptive study.

Usually, the population under the research's characteristics are outlined using a descriptive study methodology.

Also, the present research is based on a survey among the Investors & Traders in Mumbai & Navi Mumbai so it is also a type of survey study.

## **2.4 Data Collection Method:**

The systematic method of acquiring, measuring, and analyzing information on variables of interest in research is known as data collection.

Both primary and secondary sources were used to gather data for the study.

### **Primary source of data collection**

The major method for obtaining primary data was through surveys. To gather the survey's data, a structured questionnaire distributed using Google Forms was employed. The questionnaire was developed with the study's objectives and key factors in mind. The questionnaire was created with ease of understanding for the respondents in mind. The questionnaire was made in a single format to save respondents' time. The majority of the survey's questions were closed-ended, allowing participants to reply by rapidly selecting one of the available options.

### **Meaning Of Primary Data:**

In specifically for research, primary data is information that is gathered for the first time through personal experiences or proof. It can also be referred to as raw data or first-hand knowledge.

Sources of primary Data:

- Observation
- Schedules
- Interview
- Questionnaire
- Experimentation

### **Primary data collection method:**

- A structured questionnaire designed using Google form was circulated among the respondents in order to collect the primary data.

Questionnaire method: A questionnaire is a form of research tool that asks respondents a series of questions or provides additional prompts in order to collect data from them. Both closed-ended and open-ended

questions are frequently included in research questionnaires. A data collection questionnaire can be used to collect both qualitative and quantitative data.

### **Advantages of the primary data collection method:**

- The needs of the researcher at the time of data collection are specific to primary data. The type of data being gathered can be managed by the researcher.
- Compared to secondary data, it is accurate. Since the data is free from personal bias, its legitimacy can be believed.
- The data gathered through primary research are clearly owned by the researcher. He or she may decide to sell it, patent it, or make it available to the general public.
- As primary data is gathered in real-time and does not rely on archival sources, it is typically current.
- The data gathered through primary research is completely under the researcher's hands. He has the choice of what design, method, and data analysis to use.

### **Secondary Data of Data Collection:**

Collecting information that is already out there is referred to as secondary data collection. The data was already gathered, appropriate statistical analysis was performed on it, and the researcher does not own it. Typically, this information was gathered from original sources and then made publicly accessible. In other words, secondary data is information that has already been obtained by another party. Data may be gathered by a researcher directly or through other sources. To increase the overall effectiveness of a research, existing data is often compiled and summarised.

### **2.5 Sample Size:**

Sample size determination is the process of deciding how many respondents' observations to include in a statistical sample. It is an essential part of a research study since it decides how much information will be obtained, examined, and used to draw trustworthy and practical findings.

64 responses were obtained for the study project presented using a random sampling technique. Due to the small sample size, there can be a little amount of data error, but this can be corrected by conducting more studies.

### **2.6 Sample Design:**

The sample consisted of 64 responses collected from traders who use trading Apps in Mumbai & Navi Mumbai.

## **2.7 Sampling Technique:**

In order to accomplish the objectives of the current research, a random sample technique was used to collect data from the community.

### **Meaning of Random Sampling Technique:**

A sampling technique called random sampling, also known as probability sampling, enables the randomization of sample selection, meaning that each sample has the same chance of being chosen to reflect the entire population.

### **Advantages of Random Sampling Technique**

- It is the most straightforward method of acquiring data, and it offers the chance to perform data analysis with a lesser risk of carrying an error.
- There are equal opportunities for selection.
- Less information is need to complete the research.
- Findings can be applied to the entire population base.
- Simpler sample group formation; absence of researcher bias

## **2.8 Hypothesis of the Study**

A hypothesis outlines your expectations for the results of your investigation. It is a speculative, untested response to your research question. You might need to develop a number of hypotheses for some research projects that speak to various facets of your research issue.

A hypothesis should be founded on accepted ideas and body of information; it shouldn't just be a wild guess. Also, it must be testable so that you can use scientific research techniques to either confirm or disprove it (such as experiments, observations and statistical analysis of data).

Following Hypothesis were formed in order to carry on the current research work:

- H0- People do not choose Zerodha because it offers Security & better transparency.  
H1- People choose Zerodha because it offers Security & better transparency.
- H0- People who choose Angel One do not use it because of its better User Interface.  
H1 - People who choose Angel one use it because of its better user interface.

## 2.9 Techniques for Testing of Hypothesis

Hypothesis testing in statistics includes evaluating your assumptions against a population parameter. It is used to determine how two statistical variables relate to one another.

Statistical analysts measure and analyze a random sample of the population under study to test a hypothesis.

All analysts use a random population sample to test the null hypothesis as well as the alternative hypothesis. The null hypothesis is often the assumption that population parameters are identical.

The alternative hypothesis is, in essence, the converse of the null hypothesis. One of them can be real since the others are false. Yet, one of the two hypotheses will always be true.

Several types of hypothesis testing are used, and their use depends on the information provided.

Here are some commonly used techniques:

- T-test
- Chi-square test
- Analysis of variance (ANOVA)
- Z-test
- Regression analysis

For the current research work, **T-test** technique have been used for the purpose of testing the Hypothesis

## 2.10 Limitations of the Study:

The study's limits are those features of design or methodology that affected or influenced how the results of your research were interpreted.

This research, however, is subject to several limitations. The Limitations are:

- Because the study's scope is restricted to a certain geographic area, results may vary from one location to another.
- Lack of previous studies on the research topic.
- Limited access to data
- Time constraint

## **Chapter 3**

### **Literature Review**

A literature review is a thorough summary of earlier studies on a subject. The literature review examines scholarly books, journals, and other sources that are pertinent to a particular field of study. This prior research should be listed, described, summed up, impartially evaluated, and clarified in the review. It need to provide a theoretical framework for the study and assist you (the author) in defining its scope. By acknowledging the contributions of earlier researchers, the literature review reassures the reader that your work has been thoughtfully conceived. When a previous study on the subject is mentioned, it is assumed that the author has read, assessed, and incorporated that study into the current work.

**1. Srivastava, Dr. Sarika, (2011) Impact of Internet Growth on the Online Stock Trading in India**

This research paper's main goal is to examine how the expansion of the internet has affected stock market trades. The current condition of internet trading in India, in particular the size of the online trading market there, is also covered in the study. The rural user can readily and effectively access services and data through digital commerce. The only thing we need to carefully consider is building a solid and secure infrastructure for consumers to do this activity through an online or mobile gateway. If fast internet access is made available at cheaper costs, the digital commerce environment may benefit.

**2. Mathur, Mohita. (2014) “Smart Investing: A Study on Retail Investor Preference with Regards to Mobile Trading Vs Online Trading.”**

The study aims at identifying the preference towards mode of trading in the secondary equity market. The mode of trading compared are online trading and mobile trading. The study is descriptive in nature and the two trading techniques are compared on the basis of different features identified and the preferential percentages are calculated through the descriptive statistics. The analysis indicated that the investors find mobile trading convenient but a riskier mode of transacting as compared to online trading and therefore prefer online trading over mobile trading. As the research topic is in very nascent stage therefore this study is an initial effort done to analyze the acceptability of mobile trading by the Indian retail investors.

3. Iancu, Ioana. (2015) “Benefits And Drawbacks Of Online Trading Versus Traditional Trading. Educational Factors In Online Trading”

This study aims to investigate the impact of investor education on the choice to switch from traditional trading to online trading as well as the advantages and downsides of these kinds of transactions. Whom should the Investment and Financial Services Companies target with their marketing initiatives in order to increase the number of investors for online platforms? The work that is being presented is a portion of a larger project that will be part of the author's thesis and will examine additional factors, such as cost, time, psychological and social characteristics of investors, yield portfolios, and technological capabilities of Investment and Financial Services Companies, that affect the decision to switch from traditional to online trading. Author began with literature analysis, a questionnaire-based survey available online, and personal experience to examine the degree to which investor knowledge level affects the choice to switch from traditional to online trading. The study demonstrates that when investors have a high level of stock market understanding, greater education, and internet knowledge, they will move to online trading.

4. Dr.Krishna Mohan Vaddadi. Dr. Merugu Pratima (2016) “Investor Behaviour in Secondary Market A Study on Online Investors in Greater Visakhapatnam City”

The traditional method of investing has been transformed by the growth of the internet. Online trading on the stock market was made possible by the internet, allowing a new class of investors to purchase and sell equities quickly and with little paperwork. The number of online investors has skyrocketed as a result of this recent increase in the use of stock exchanges on the Internet. The current study examines the trading history, investment goals, and behavioural characteristics of internet investors. The results show that the majority of internet investors trade every day. The findings indicate that among online investors in Visakhapatnam City, stock is the most popular investment option.

5. V. Pavithras, V.Pavithras (2017) “A Study On Customers Perception Towards Online Trading In Retail Brokerage ,Chennai.”

Consumers Attitude Toward Online Trading in Retail Brokerage is the study's title. The goal is to investigate the effects of consumers' perceptions of online trade. to research the impact of investment and stock techniques in retail brokerage. to research how investors' perceptions of online trading are influenced by their demographic profiles. 100 responders to a standardised questionnaire provide the primary data. In this study, a descriptive research design was adopted. By the use of convince sampling, primary data is gathered. Using procedures like percentage analysis and the Kruskal-Wallis H-test, the



obtained data is categorised, tabulated, and examined (Mann Whitney U test). According to this study's findings on customer perceptions of online trading, 60% of investors are men.

6. Rawal, Pratima & Jivan, Kumar & Chowdhury (2018) “Trading behaviour of Retail investors”

This paper looks into the ongoing experiences of retail buyers in the Indian stock market. The Indian stock market is well-known throughout the world. The information was received from 300 retail investors in the Haryana region of Faridabad. The researcher used a cross-sectional study for this investigation. The use of deductive reasoning was made necessary by the cyclical nature of the process, which begins with the theoretical framework and moves on to the formulation of research hypotheses and the collection of data based on those hypotheses in order to draw conclusions. In order to collect the ongoing experiences of the retail investors from Faridabad-NCR who were familiar with the investment phenomenon, the researcher created a suitable questionnaire with the help of the relevant studies. Chi-square analysis was done with the help of the SPSS software. The study investigates whether there is a relationship between the trading behaviour of retail investors and demographic characteristics including age, gender, and annual income.

7. C. Navya, CH, Deepthi (2019) “Investor Attitude Towards Online Trading And Offline Trading”

One of the best and simplest ways for investors to purchase shares is through online trading. This study clarifies the operation of these online trading platforms and the manner in which they are gratifying their investors. Its goal is to investigate how investors view online share trading, and by pointing out any areas that need improvement, it also aids in determining the current level of service being offered. According to data gathered, investors have recommended the online stock market to others. The services of the dealer's proper reaction and quick order placement could be improved by the stock brokers.

8. Malhotra, Suzanee. (2020). Study of features of mobile trading apps: A silver lining of pandemic.

The business community and the operation of the economies have recently been shaken by the medical pandemic problem. Retail investors' participation in the stock market has increased, particularly on trading apps for mobile devices. This is because of these mobile trading apps' main characteristics. In order to highlight the significance of these characteristics from the users' perspective, this research paper attempts to empirically examine some of the major elements of these mobile trading apps from certain well-known stock broking businesses. The study used factor analysis to determine that the simplicity of app use was the most significant essential characteristic. Aside from investment analysis information, security and privacy concerns were the second and third most important aspects influencing consumer

preference for a particular mobile trading app, respectively. For the creators and owners of these investment apps, the research report presents significant managerial implications

9. Girnara, Mona. (2020). 'Growth Of Online Stock Trading and Its Challenges'.

This research paper contain what is online stock trading, how online stock trading developed, growth of online stock trading , advantages and disadvantages of online stock trading, challenges involve in online stock trading. My research's goal is to examine the expansion of online stock trading as well as the issues and difficulties that come with it. Descriptive research was done for this project. There has been a simple random sampling design. Researchers came to the conclusion that online stock trading is growing more and more each year. Online stock trading presents a number of issues and difficulties, including time consumption, increased fraud risk, high transaction costs, etc. Online stock trading has several benefits, such being quicker, offering more options, and being less expensive.

10. Dr. D.Susana, Ms. Vandana Prabhu (2020) “A Study On Adoption Of Online Stock Trading With Special Reference To Coimbatore City Based On Utaut Model”

The goal of this study is to look at stock traders' intentions to use online stock trading services offered by Fintech companies. To enable investors to trade with a single click at their convenience, fintech companies are investing a lot of money in information technology. A thorough research model was provided, which was based on the UTAUT model (Unified theory of acceptance & use of technology), which includes constructs like Performance expectancy, enabling conditions, hedonic motivation, effort expectancy, and risk perceptions. For the purpose of validating the study model, 200 stock investors from Coimbatore city participated in an empirical survey. According to the findings of the SEM study, factors like performance expectations, hedonic motivation, enabling circumstances, and economic risk were statistically significant influences on people's intentions to engage in online stock trading. It also implied that people's usage patterns towards using the online stock trading service were influenced by their intention to utilise it. This suggests that securities businesses should take into account stock investors' technology and risk perceptions in order to support their purpose to utilise online stock trading. This will encourage stock traders to use the service. The results of this study not only have significant ramifications for m-commerce research but also give securities companies and the creators of online stock trading platforms useful information.

11. Sharma S, Anute N, Ingale D (2021) A study of online trading system in India

This study explores the new trend in online trading in relation to businesses and brokerages. One of the key components of the Indian economy that affects the nation's financial health and rate of economic growth is the stock market. In the modern world, there are millions of internet users, many of whom

come from rural backgrounds. GPL (Globalization, Privatization, and Liberalization) the internet has had a significant impact on people's view during the past 30 years, starting in 1991. The sole factor in determining a company's success is client pleasure. The goal of the current study is to determine consumer knowledge of internet trading. The study's primary goal is to comprehend how internet trading function. The main justification for investing in the stock market is compelling and simple to understand

**12. Guddati, Anish & Bhat, Dhruva. (2021) "Analysis of Pre-existing Investment Behavior and Influence of Trading Apps"**

This paper examines the contribution that trading apps like Robinhood provide to financial inclusion and secure trading possibilities. This paper explains overconfidence, sociability, and the disposition effect as they relate to investment behaviour in the current economic climate. This paper also evaluates the Robinhood business model and design. The results did show that Robinhood does promote at least some dangerous behaviour through excessive active trading and is one example of a problematic trading app through the 4th Industrial Revolution.

**13. C. Sumant, V. Bhavsar, B. Kumar Sinha and V. Bhatt (2022) "Impact of Stock Trading Apps on Indian Millennial Consumer Behavior in the Stock Market"**

The current study is focused on the "stock trading" industry and how modern consumers choose to buy and sell. There are numerous apps available for smartphones right now, including "kite" by Zerodha, "IIFL Markets" by IIFL Securities, "MO investor" by Motilal Oswal, and many others with more than ten lakh downloads on the Google Playstore. This study will also conduct a competitive analysis of the discovered "main parameters of value" in the most popular apps, limiting to Zerodha, Angel Broking, Motilal Oswal, and IIFL securities, etc. The study's findings will be used to determine which App is currently most on the path to becoming an ideal product.

**14. Shubham Jadhav, Sheetal Raj, Akshay Borate, Kartik Gadhiya, Dr. Kavita Khadse (2022) "Business Resilience: Study of Management Student's Perception about Online Trading Platform."**

The purpose of this study is to ascertain how students feel about internet trading. to research how demographic factors affect investors' perceptions of online trading. Via a standardised questionnaire, 146 respondents' primary data is gathered. A persuasive sampling approach is used to get primary data. Using methods like the Chi-square Test, P-Test, and Frequency Test, the acquired data have been categorised, tabulated, and analysed. Students' two main considerations before making stock market investments were Research Reports and Trading Platform. The most popular online trading platform among customers has emerged as Zerodha. In contrast to day trading and swing trading, users preferred

position trading. Age, gender, and qualification had no bearing on the decision-making process. The most important issue that affected internet trading platforms was brokerage fees.

15. Gomathy, C K., Ms.C K Hemalatha (2022). “A Study On Evaluation Of Online Trading”

A study on the evaluation of online trading options in relation to different financial services. The primary goal of the study was to assess the online trading platforms via which a set number of transactions were made. The type of study undertaken for this work is descriptive, and the sample size employed was 200. A primary and secondary data collection strategy was adopted for this investigation. In this study, a structured questionnaire was employed to collect the data. For analysis and interpretation, graphical representation and percentage analysis were utilised. This paper is primarily concerned with consumer feedback and recommendations that can help businesses solve problems more effectively. The results showed that the majority of respondents were happy with the organization's online trading services. The job would undoubtedly assist in predicting client wants and assisting the business in taking the necessary actions.

## **Chapter 4**

### **Data Analysis and Interpretation**

#### **4.1. DATA ANALYSIS**

In order to find relevant information, support inferences, and help decision-making, data analysis is the process of analyzing, cleaning, manipulating, and modelling data.

Data analysis is utilized in a variety of fields in business, research, and social science. It contains a wide range of facts and methodologies and encompasses a wide range of procedures under a variety of names. Data analysis is used in the modern business environment to assist businesses make more scientific decisions and run more efficiently.

In order to examine each component individually, an entire set of data must be broken down through analysis. The act of taking raw data and turning it into information that users can use to make decisions is known as data analysis. Data is gathered and analyzed to provide answers to questions, test hypotheses, or refute theories.

#### **4.2 DATA INTERPRETATION**

The use of procedures for reviewing data in order to draw conclusions that are based on solid evidence is referred to as data interpretation. The analysis of data gives the information a meaning and establishes its significance and ramifications.

Data interpretation is obviously important, which is why it must be done correctly. The likelihood of data coming from various sources is relatively high, and the data often enters the analytic process with random organization. Data analysis is frequently highly individualized.

In other words, the nature and objective of interpretation will differ from business to business and are probably related to the sort of data being analyzed. Although there are many various techniques that can be used depending on the nature of each unique piece of data, "quantitative analysis" and "qualitative analysis" are the two most popular and widely used subcategories. Yet, it must be remembered that visual representations of data findings are meaningless unless a wise choice is made about scales of measurement before any meaningful data interpretation inquiry can start. The scale of measurement for the data must be chosen before any significant data analysis can start because it will affect data interpretation ROI throughout the long term.

**Primary Data:**

**1. The number of Respondents who Know About Zerodha App.**

Do you know about Zerodha app?

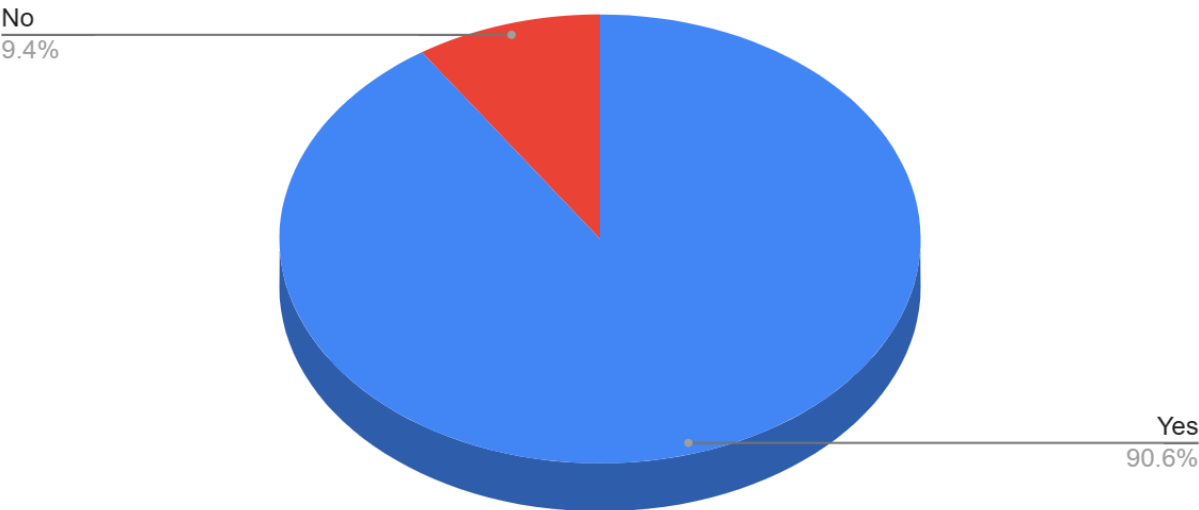


Figure 4.1 Number of Respondents who Know About Zerodha App

Do you Know About Zerodha App?	Percentage (%)
Yes	90.6%
No	9.4%

Table 4.1 Number of Respondents who Know About Zerodha App

**Interpretation:**

The majority of the respondents i.e., 90.6% have heard about Zerodha App while 9.4% of respondents have not heard about Zerodha App.

## 2. The number of Respondents who Know About Angel One App.

Do you know about Angel One app?

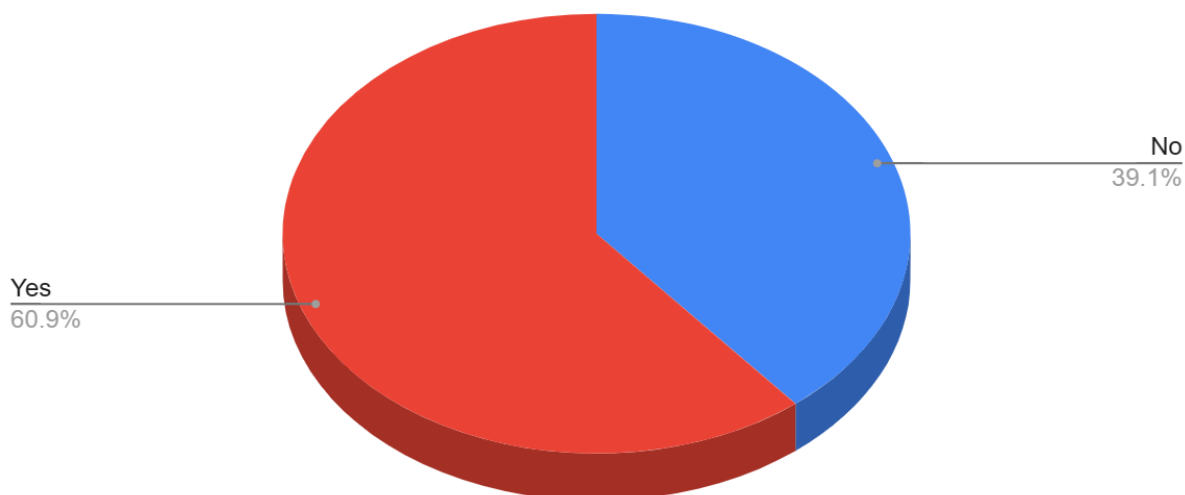


Figure 4.2 Number of Respondents who Know About Angel One App

Have you heard of the Angel One app?	Percentage (%)
Yes	60.9 %
No	39.1 %

Table 4.2 Number of Respondents who Know About Angel One App

### Interpretation:

Most of the respondents i.e., 60.9% have heard about Angel One App while 39.1% of respondents have not heard about Angel One App.

### 3. The Number of people who use Zerodha and Angel One for Trading.

Which app do you use for Trading?

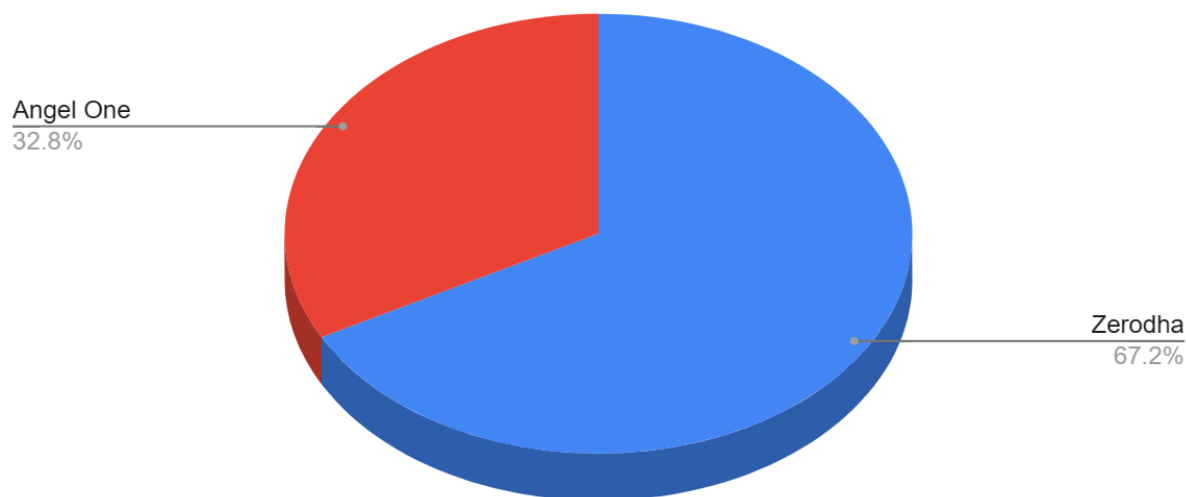


Figure 4.3 Number of people who use Zerodha and Angel One for Trading.

What app do you use for Trading?	Percentage (%)
Zerodha	67.2%
Angel One	32.8%

Table 4.3 Number of people who use Zerodha and Angel One for Trading.

#### Interpretation:

The majority of the respondents i.e., 67.2% use Zerodha App for Investing while 32.8% of respondents use Angel One App for Investing.



#### 4. The Trading App that people find more easier to use.

Which app do you feel is more easier to use ?

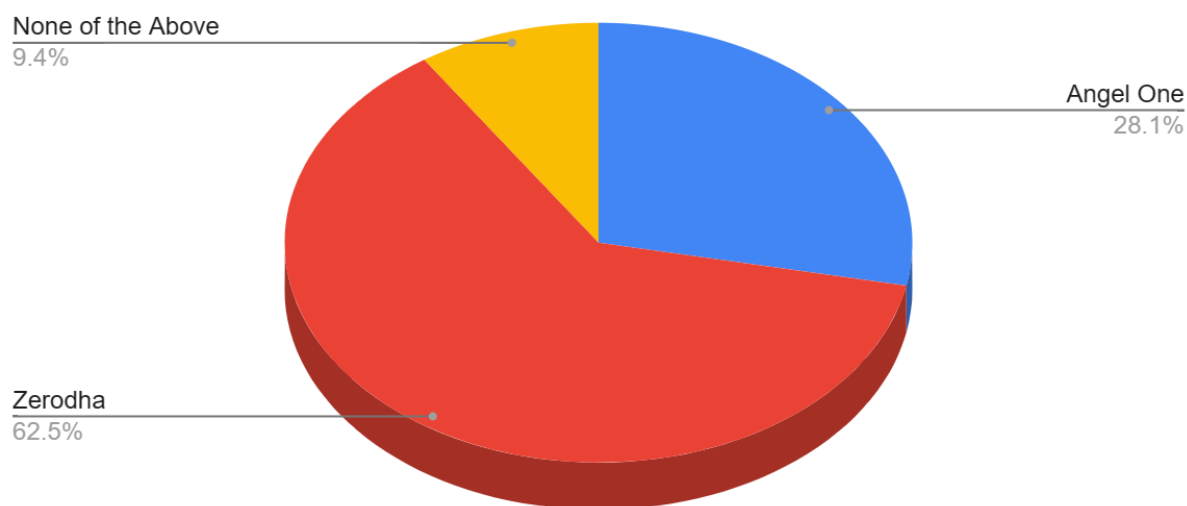


Figure 4.4 The Trading App that people find more easier to use.

Which app do you feel is more easier to use?	Percentage (%)
Zerodha	62.5%
Angel One	28.1%
None of the above	9.4%

Table 4.4 The Trading App that people find more easier to use

#### Interpretation:

Most of the respondents i.e., 65.6% think Zerodha is more user-friendly while 39.1% of respondents think Angel One is User friendly.9.4% of the respondents found both apps are not user-friendly.

## 5. The Kind of Investments that people make using Trading Apps.

For which type of Investment do you use this app for?

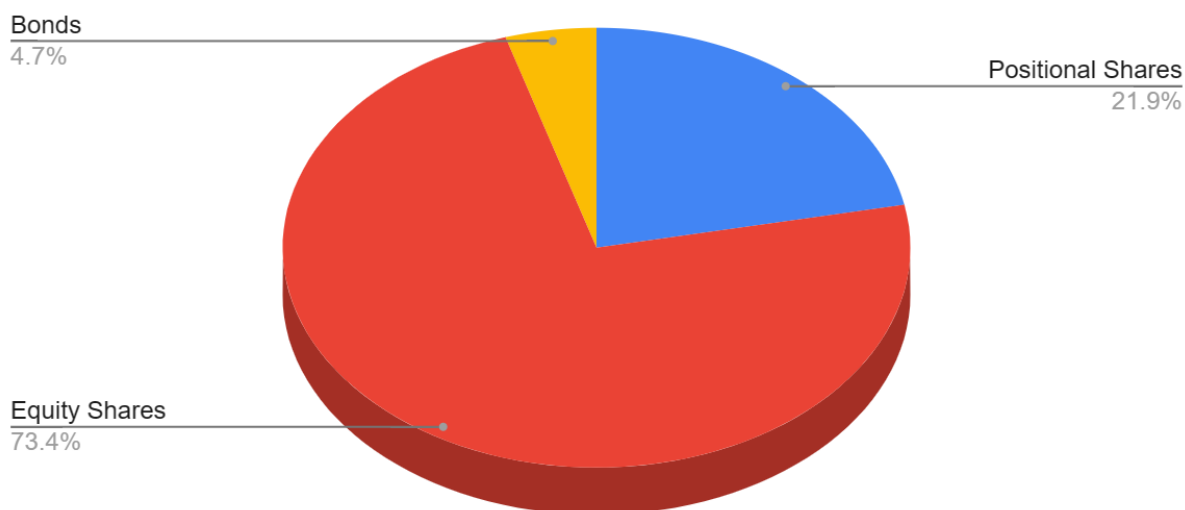


Figure 4.5 The Kind of Investments that people make using Trading Apps.

For which type of investment do you use this app for?	Percentage (%)
Equity Shares	73.4%
Positional Shares	21.9%
Bonds	4.7%

Table 4.5 The Kind of Investments that people make using Trading Apps.

### Interpretation:

From the above data, out of 64 respondents, the majority of the respondents i.e., 73.4% use Trading Apps for Buying Equity Shares while 21.9% of the respondents use to buy positional shares and 4.7% of the respondents use to buy/sell bonds.

## 6. The Trading App has a better user Interface.

Which trading app has better user interface ?

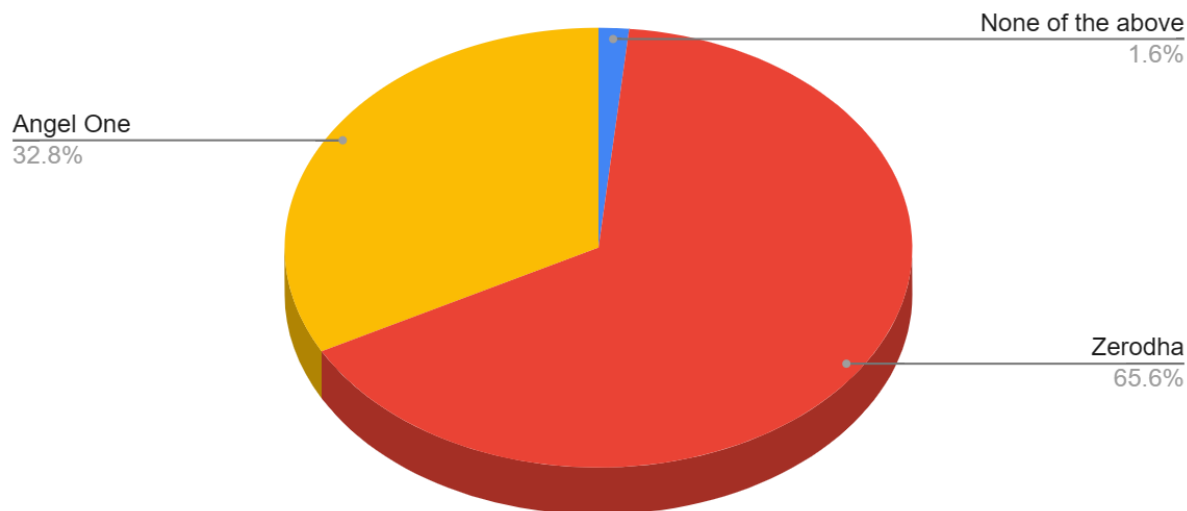


Figure 4.6 The Trading App has a better user Interface

Which trading App has better user Interface?	Percentage (%)
Zerodha	65.6%
Angel One	32.8
None of the Above	1.6

Table 4.6 The Trading App has a better user Interface

### Interpretation:

Most of the respondents i.e., 65.6% Believe Zerodha has a better user interface while 39.1% of respondents think Angel One has a better user interface and 1.6% respondents believe both apps mentioned above do not have a better use interface.

## 7. The Trading App that offers better transparency.

Which app do you think, offers a better transparency?

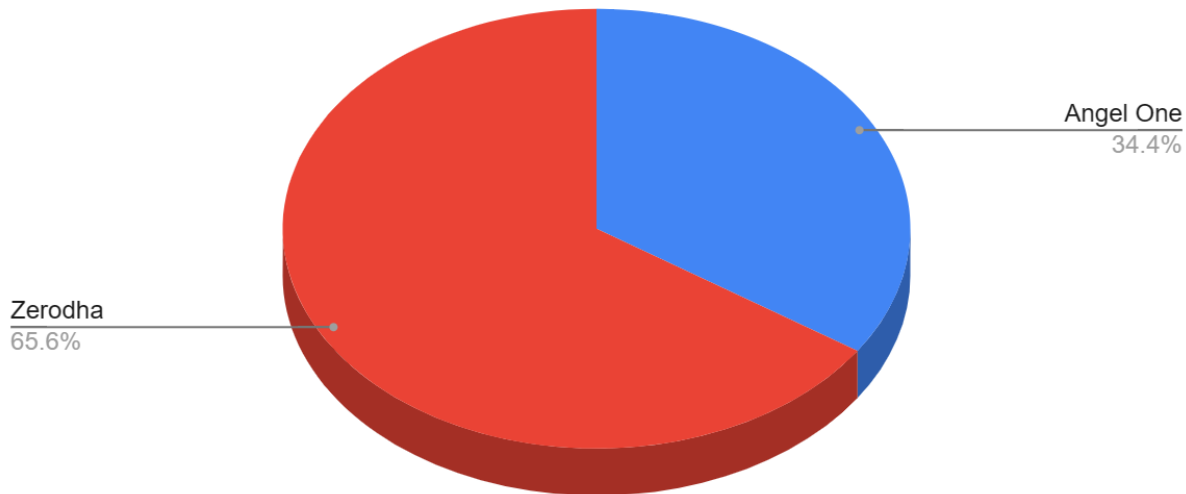


Figure 4.7 The

Trading App that offers better transparency.

Which app do you think, offers a better transparency?	Percentage (%)
Zerodha	65.6%
Angel One	34.4 %

Table 4.7 The Trading App that offers better transparency.

### Interpretation:

Out of 64 respondents, the Majority of the respondents i.e., 65.6% respondents believe Zerodha provides more transparency while, 34.4% respondents believe Angel One provides more transparency.

## 8. The Trading App that is more Secure.

According to you, which app do you feel is more secure ?

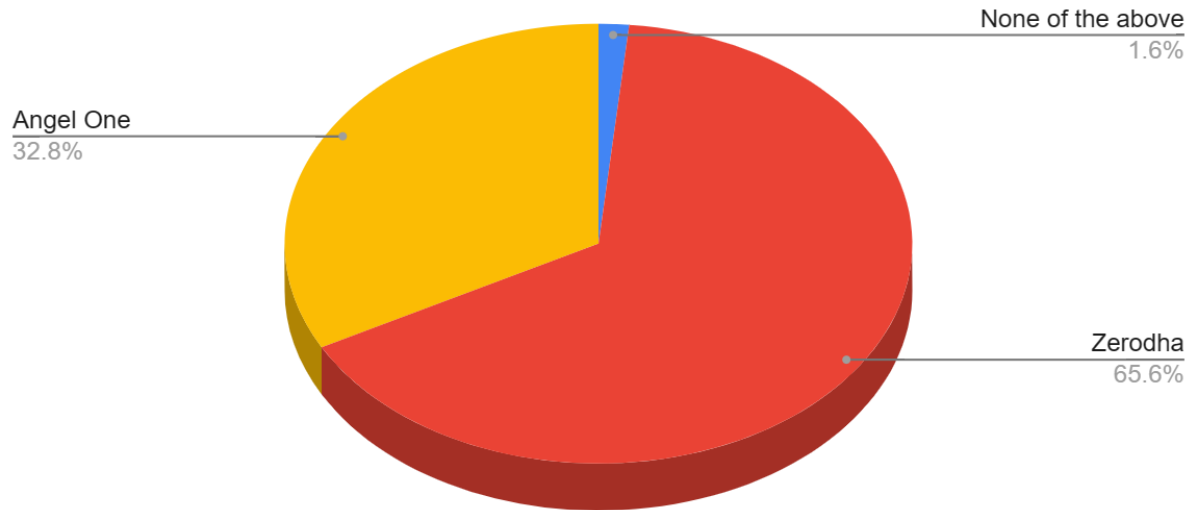


Figure 4.8 The Trading App that is more Secure.

According to you, which app do you feel is more secure?	Percentage (%)
Zerodha	65.6%
Angel One	32.8
None of the Above	1.6

Table 4.8 The Trading App that is more Secure.

### Interpretation:

Most of the respondents i.e., 65.6% Feel Zerodha is more secure, while 32.8% Respondents believe Angel one is More Secure and 1.6% respondents believe both apps mentioned above aren't secure.

## 9. The Trading App which offers lowest brokerage charge.

According to you, which provides lowest brokerage charge?

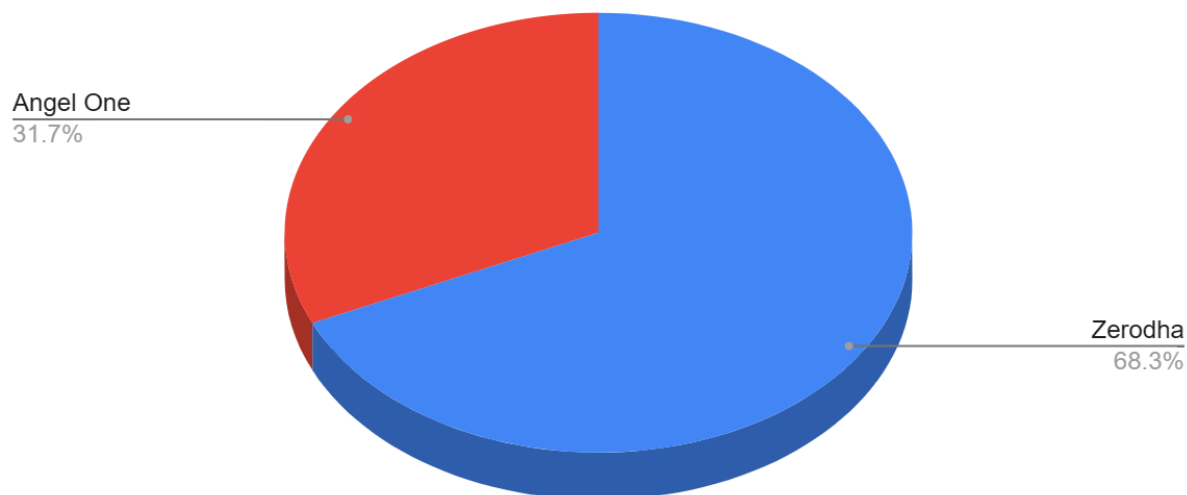


Figure 4.9 The Trading App which offers lowest brokerage charge.

According to you, which app provides Lowest brokerage charge?	Percentage (%)
Zerodha	68.3%
Angel One	31.7%

Table 4.9 The Trading App which offers lowest brokerage charge.

### Interpretation:

From the above data, out of 64 respondents, the majority of the respondents i.e., 68.3% feel Zerodha offers the lowest brokerage fee while 31.7% of respondents feel Angel One offers the lowest brokerage fee.

## 10.The Trading App which offers best customer Service.

According to you, which app offers best customer service?

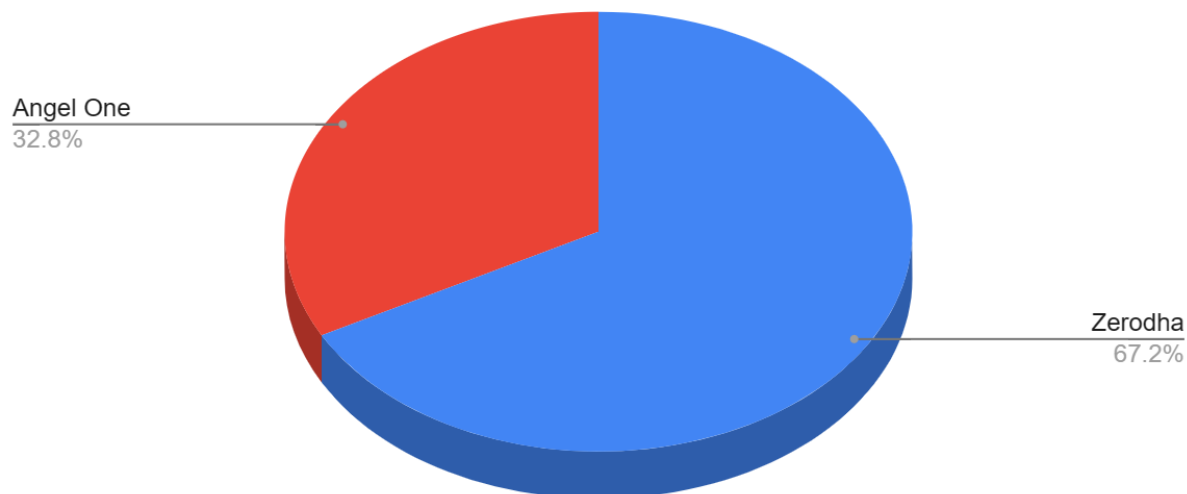


Figure 4.10 The Trading App which offers best customer Service

According to you, which app offers best customer service?	Percentage (%)
Zerodha	67.2%
Angel One	32.8%

Table 4.10 The Trading App which offers best customer Service

### Interpretation:

From the above data, out of 64 respondents, the maximum number of respondents (i.e., 67.2%) think Zerodha offers the best customer service while 32.8% think Angel One offers the best customer service.

## 11. The Trading app that demonstrates better fundamental and technical analysis.

Which app demonstrates you Fundamental & Technical analysis in a better manner?

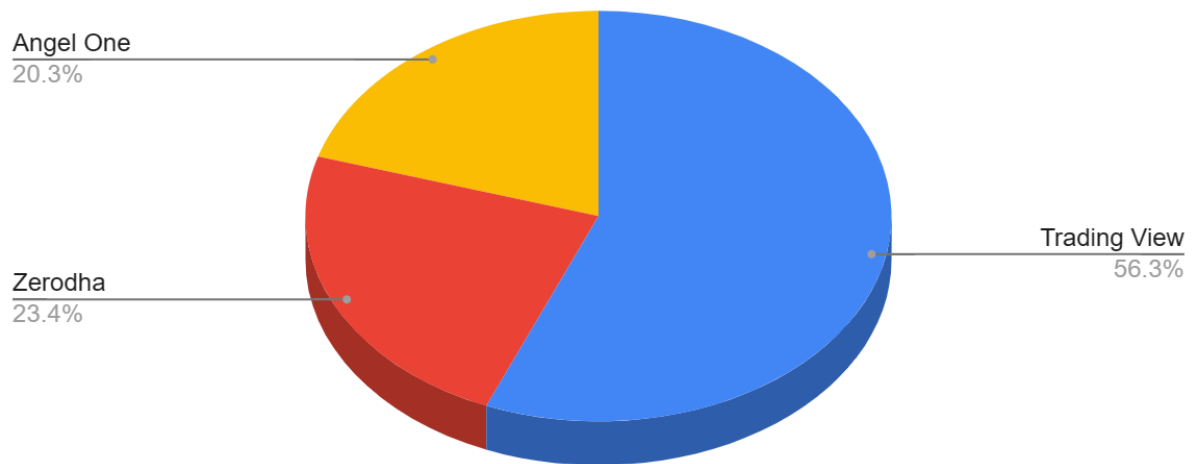


Figure 4.11 The Trading app that demonstrates better fundamental and technical analysis

Which app demonstrates you fundamental and technical analysis in a better manner?	Percentage (%)
Trading View	56.3%
Zerodha	23.4%
Angel One	20.3%

Table 4.11 The Trading app that demonstrates better fundamental and technical analysis

### Interpretation:

Most of the respondents i.e., 56.3% use Trading View App to demonstrate Fundamental and Technical analysis while 23.4% of Respondents use Zerodha and 20.3% of respondents use Angel one to demonstrate Fundamental and Technical analysis.



## 12. Frequency of these apps being used.

How often do you use this app daily?

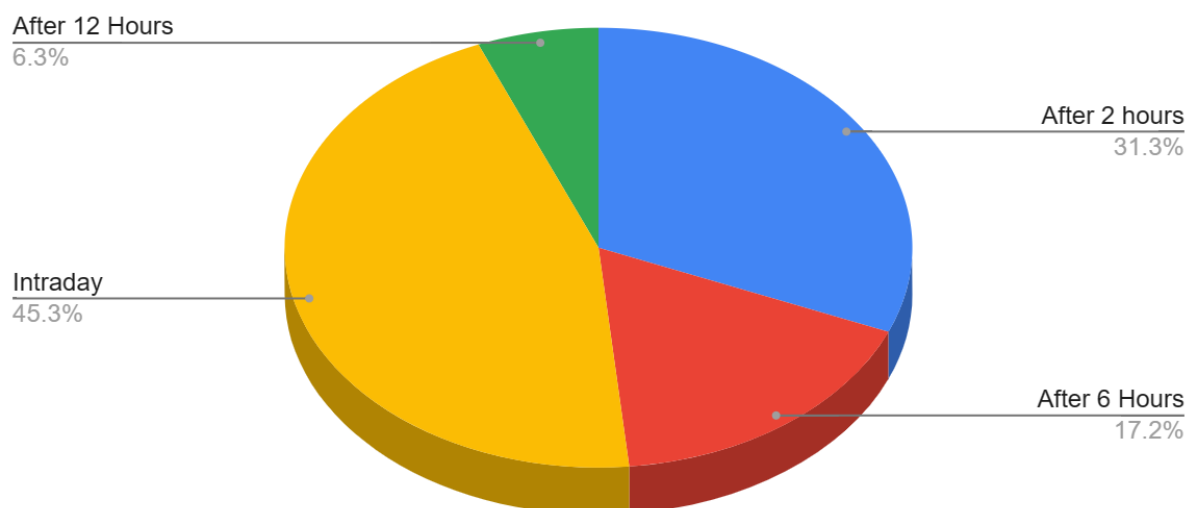


Figure 4.12 Frequency of these apps being used.

How often do you use this app daily?	Percentage (%)
Intraday	45.3%
After 2 Hours	31.3%
After 6 Hours	17.2%
After 12 Hours	6.3%

Table 4.12 Frequency of these apps being used.

### Interpretation:

From the above data, out of 64 respondents, the majority of the respondents i.e., 45.3% used Intraday while 31.3% of the respondents use it every 2 hours. 17.2% of the respondents use it every 6 hours. 6.3% of the respondents use it every 12 hours

### 13.The Factors you take into account before selecting a trading app.

What are the parameters that you consider before choosing a trading app?

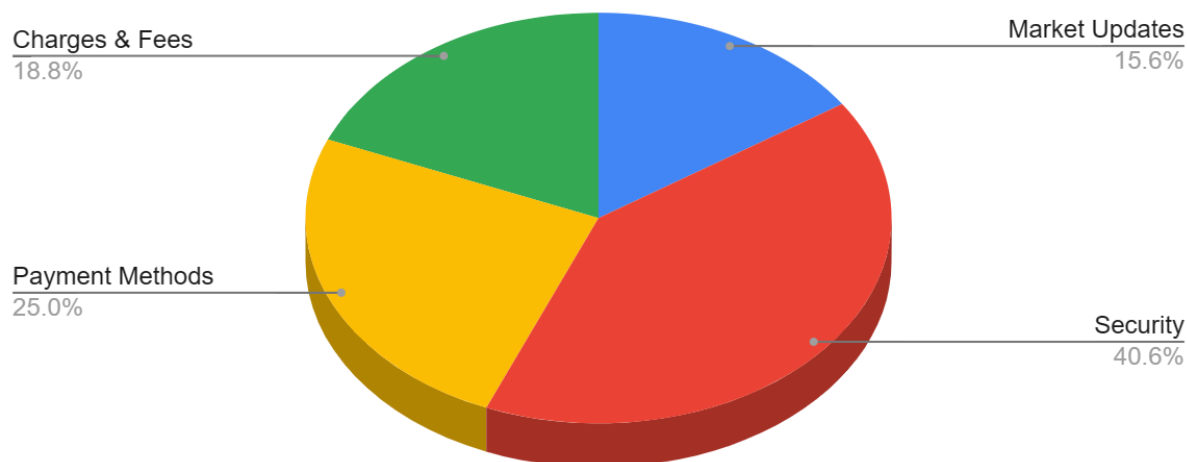


Figure 4.13 The Factors you take into account before selecting a trading app.

What are the parameters that you consider before choosing a trading app?	Percentage (%)
Security	40.6%
Payment methods	25.0%
Charges & fees	18.8%
Market Updates	15.6%

Table 4.13 The Factors you take into account before selecting a trading app.

#### Interpretation:

The majority of the respondents i.e., 40.6% of the respondents believe Security is a major factor before selecting any trading app, while 25.0% of the respondents believe in payment methods. 18.8% of the respondents believe in charges & Fees and 15.6% of the respondents believe in Market Updates.

#### 14. The Trading app which is more recommended by the people.

Which App would you recommend your Friend/ Families??

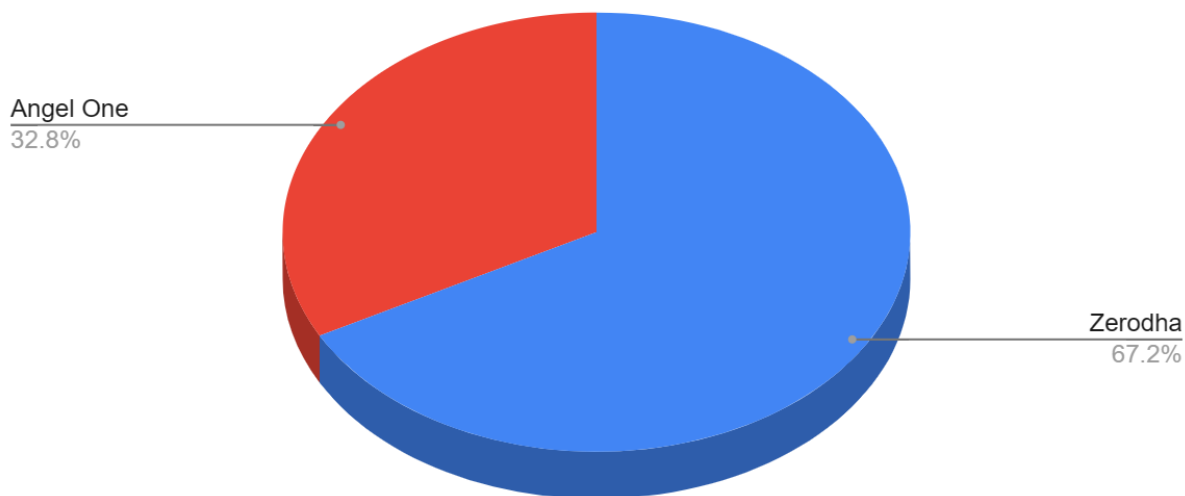


Figure 4.14 The Trading app which is more recommended by the people

Which app would you recommend your friends and families?	Percentage (%)
Zerodha	67.2%
Angel One	32.8%

Table 4.14 The Trading app which is more recommended by the people

#### Interpretation:

From the above data, out of 64 respondents, the maximum number of respondents (i.e., 67.2%) would like to recommend Zerodha to their Friends and families, while 32.8% of the respondents would recommend Angel One.

## 15. The time people have been investing in trading apps.

How long you have been investing in trading apps?

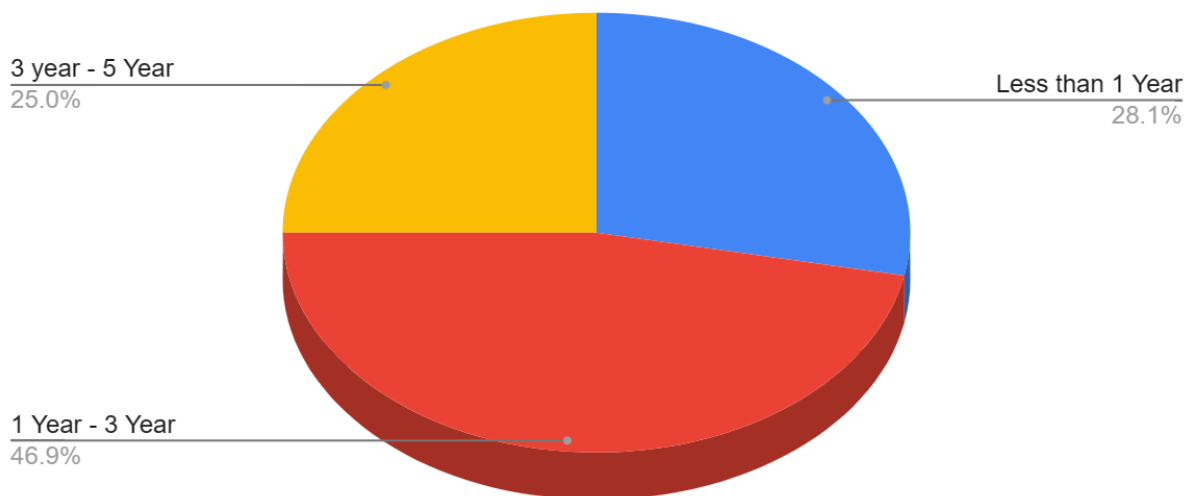


Figure 4.15 the time people have been investing in trading apps.

How long have you been investing in trading apps?	Percentage (%)
Less than 1 year	28.1%
1 Year – 3 Year	46.9%
3 Year – 5 Year	25.0%

Table 4.15 the time people have been investing in trading apps.

### Interpretation:

Most of the respondents i.e., 46.9% of the respondents have been using trading apps for 1 Year – 3 Years, while 28.1% have been using less than 1 year.25.0% of the respondents have been using it for 3 Years – 5 years.

## 16. The Trading App which is being used for Chart trading/Analysis.

Which App do you use for Chart Trading/Analysis?

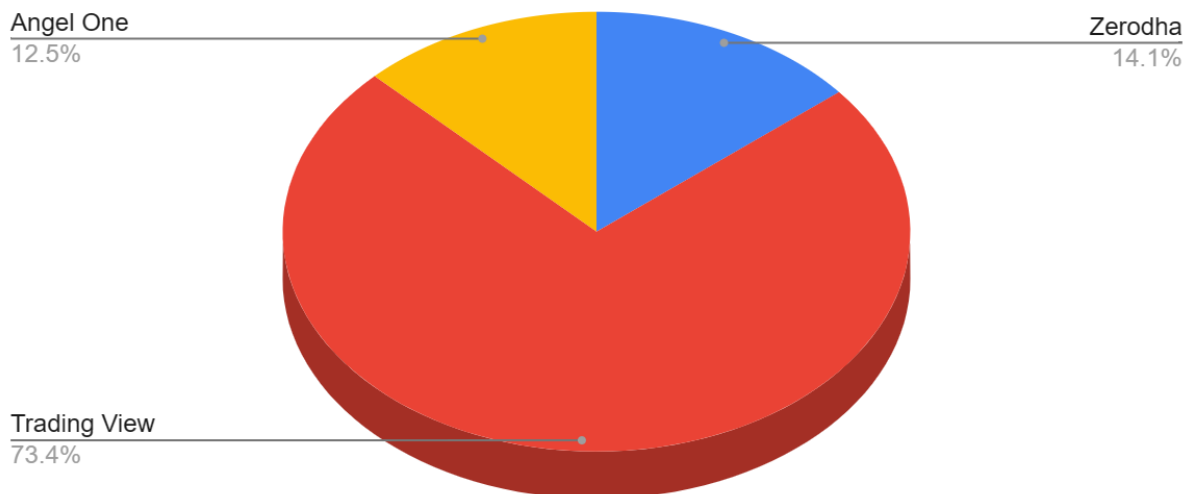


Figure 4.16 The Trading App which is being used for Chart trading/Analysis.

Which app do you use for chart Trading/Analysis?	Percentage (%)
Trading View	73.4%
Zerodha	14.1%
Angel One	12.5%

Table 4.16 The Trading App which is being used for Chart trading/Analysis

### Interpretation:

The majority of the respondents i.e., 73.4% use Trading view for Chart Trading/analysis while 14.1% of the respondents use Zerodha. 12.5% of the respondents use Angel One.

## 17. Rating of Zerodha App.

How much would you rate Zerodha App for Trading?

64 responses

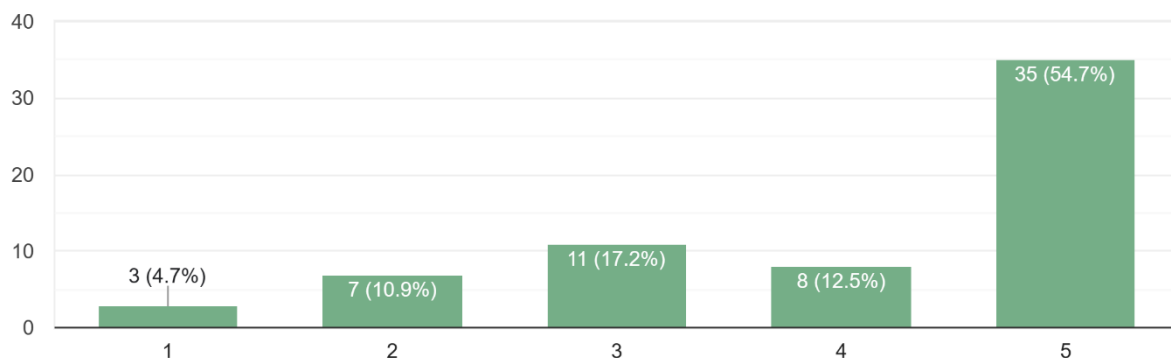


Figure 4.17 Rating of Zerodha App.

How much Would you rate Zerodha App for Trading?	Percentage (%)
1 – Very Poor	4.7%
2 – Poor	10.9%
3 – Neutral	17.2%
4 – Good	12.5%
5 -Very Good	54.7%

Table 4.17 Rating of Zerodha App.

### Interpretation:

The Respondents were asked to rate Zerodha App. 54.7% of the respondents rated the App very good.12.5% of the respondents rated App as Good. 17.2% of the respondents rated the App Neutral. 10.9% of the respondents rated the App Poor. 4.7% of the respondents rated the App very Poor.

## 18. Rating of Angel One App.

How much would you rate Angel one App for Trading?

64 responses

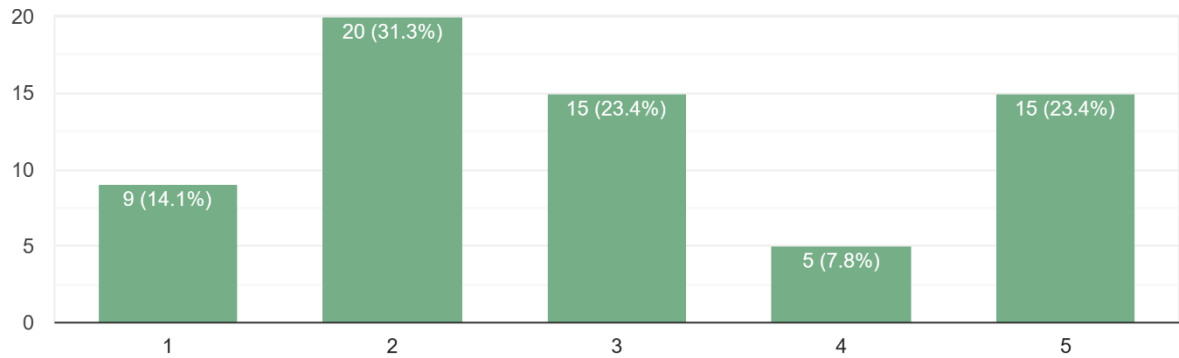


Figure 4.18 Rating of Angel One App.

How much Would you rate Angel One App for Trading?	Percentage (%)
1 – Very Poor	14.1%
2 – Poor	31.3%
3 – Neutral	23.4%
4 – Good	7.8%
5 - Very Good	23.4%

Table 4.18 Rating of Angel One App.

### Interpretation:

The Respondents were asked to rate Angel One App. 23.4% of the respondents rated the App very good. 7.8% of the respondents rated the App Good. 23.4 % of the respondents rated the App Neutral. 31.3 % of the respondents rated the App Poor. 14.1 % of the respondents rated the App very Poor.

## 4.2 SECONDARY DATA

### 1) Zerodha

#### Balance Sheet

ZERODHA BROKING LIMITED Consolidated Financial Statements for period 01/04/2021 to 31/03/2022

#### [110000] Balance sheet


Unless otherwise specified, all monetary values are in Millions of INR

	31/03/2022	31/03/2021	31/03/2020
Balance sheet [Abstract]			
Assets [Abstract]			
Non-current assets [Abstract]			
Property, plant and equipment	72.26	50.9	57.52
Other intangible assets	465.17	598.88	115.76
Non-current financial assets [Abstract]			
Non-current investments	25,601.59	3,569.83	
Loans, non-current	21.15	16.49	
Other non-current financial assets	3,615.32	3,201.49	
Total non-current financial assets	29,238.06	6,787.81	
Deferred tax assets (net)	4.76	74.99	
Other non-current assets	132	0	
Total non-current assets	29,912.25	7,512.58	
Current assets [Abstract]			
Inventories	0	0	
Current financial assets [Abstract]			
Current investments	0	0	
Trade receivables, current	15,069.35	13,585.85	
Cash and cash equivalents	12,908.01	5,282.31	
Bank balance other than cash and cash equivalents	1,912.5	1,027.16	
Loans, current	101.24	2.15	
Other current financial assets	186,140.4	123,291.32	
Total current financial assets	216,131.5	143,188.79	
Other current assets	0	212.75	
Total current assets	216,131.5	143,401.54	
Total assets	246,043.75	150,914.12	
Equity and liabilities [Abstract]			
Equity [Abstract]			
Equity attributable to owners of parent [Abstract]			
Equity share capital	1,000	1,000	1,000
Other equity	36,577.93	15,644	
Total equity attributable to owners of parent	37,577.93	16,644	
Non controlling interest	0	0	
Total equity	37,577.93	16,644	
Liabilities [Abstract]			
Non-current liabilities [Abstract]			
Non-current financial liabilities [Abstract]			
Borrowings, non-current	0	0	
Other non-current financial liabilities	51.39	63.02	
Total non-current financial liabilities	51.39	63.02	
Provisions, non-current	2,194.9	1,385.96	
Deferred tax liabilities (net)	323.52	0	
Total non-current liabilities	2,569.81	1,448.98	
Current liabilities [Abstract]			
Current financial liabilities [Abstract]			
Borrowings, current	0	0	
Trade payables, current	203,911.6	131,415.51	
Other current financial liabilities	365.05	603.36	
Total current financial liabilities	204,276.65	132,018.87	
Other current liabilities	880.31	654.87	
Provisions, current	353.59	0	
Current tax liabilities	385.46	147.4	
Total current liabilities	205,896.01	132,821.14	
Total liabilities	208,465.82	134,270.12	
Total equity and liabilities	246,043.75	150,914.12	



## 2) Angel One

### Balance Sheet

 Angel One Limited (formerly known as Angel Broking Limited) CIN: L67120MH1996PLC101709 Regd. Office: G-1, Akruti Trade Centre, MIDC, Road No-7, Andheri (E), Mumbai - 400 093 Tel: (022) 68070100   Fax: (022) 68070107 Corporate Office: 6th Floor, Akruti Star, Central Road, MIDC, Andheri (E) Mumbai-400 093. Tel: (022) 40003600   Fax: (022) 39357699 Website: www.angelone.in   Email: investors@angelbroking.com			
Notes:			
1	Consolidated Balance Sheet as at 31 March 2022	(Rs. in million)	
		As at 31 March 2022 (Audited)	As at 31 March 2021 (Audited)
<b>ASSETS</b>			
<b>Financial assets</b>			
(a) Cash and cash equivalents		4,221.07	820.44
(b) Bank balance other than cash and cash equivalents		44,528.50	17,954.03
(c) Trade receivables		5,653.24	2,276.95
(d) Loans		13,575.00	11,284.93
(e) Investments		186.52	55.40
(f) Other financial assets		1,948.93	14,289.33
<b>Non-financial assets</b>			
(a) Current tax assets (Net)		21.41	14.82
(b) Deferred tax assets (Net)		18.47	47.02
(c) Investment property		33.36	33.94
(d) Property, plant and equipment		1,402.07	1,004.43
(e) Intangible assets under development		119.96	1.83
(f) Intangible assets		65.63	54.73
(g) Right of use assets		17.20	55.18
(h) Other non-financial assets		408.07	245.26
<b>Total Assets</b>		<b>72,199.43</b>	<b>48,138.29</b>
<b>LIABILITIES AND EQUITY</b>			
<b>LIABILITIES</b>			
<b>Financial liabilities</b>			
(a) Trade payables			
(i) total outstanding dues of micro enterprises and small enterprises		-	1.97
(ii) total outstanding dues of creditors other than micro enterprises and small enterprises		40,668.10	22,762.32
(b) Debt securities		245.67	-
(c) Borrowings (other than debt securities)		12,331.65	11,714.69
(d) Other financial liabilities		2,533.92	1,797.06
<b>Non-financial liabilities</b>			
(a) Current tax liabilities (Net)		9.87	120.52
(b) Provisions		121.03	90.99
(c) Other non-financial liabilities		445.42	340.77
<b>EQUITY</b>			
(a) Equity share capital		828.59	818.27
(b) Other equity		15,015.18	10,491.70
<b>Total Liabilities and Equity</b>		<b>72,199.43</b>	<b>48,138.29</b>



## 4.2.1 DATA INTERPRETATION OF SECONDARY DATA

The term "secondary analysis" describes the process of using data from earlier studies to address new questions.

Large-scale surveys or data gathered as part of a personal investigation can be considered secondary data.

- 1. Current ratio:** The current ratio is also referred to as the working capital ratio. In order to determine whether a company's assets, financing, and liabilities are sustainably balanced, this ratio compares a company's current assets to its current liabilities. The current ratio, which demonstrates a company's capacity to settle short-term debts, is frequently used as a broad indicator of financial health.

The ratio increases as the corporation becomes more liquid. The majority of organizations are in good financial shape if their current ratio is 2, which is the most typical reasonable value. Low current ratios (less than 1) indicate that a business will struggle to pay its immediate obligations. Nonetheless, an analyst should consider a company's operating cash flow to gain a better picture of its liquidity. A low current ratio can be maintained even with a significant operating cash flow. If the current ratio is excessively high (more than 2), the company could not be utilizing its short-term financing resources or current assets to their full potential. This can indicate a problem with working capital management.

**Current ratio= Current assets/ Current liabilities**

Year	Zerodha	Angel One
2021	1.07 times	1.27 times
2022	1.04 times	1.24 times

Table 4.2.1.1 Current Ratio of Zerodha and Angel one

### Interpretation:

As a general rule, ratios above 1.00 may indicate a company is able to pay its present debts as they become due, while ratios below 1.00 may indicate a company may struggle to meet its short-term obligations.

In the year 2021 & 2022 Zerodha had a current ratio of 1.07 times & 1.04 times respectively, while Angel one had a ratio of 1.27 times & 1.24 times. This shows they both are eligible to pay short term debts as they become due.

2. **Operating profit margin:** The operating profit margin calculates profits as a percentage of sales before interest and taxes are subtracted.

Businesses with high operating profit margins can offer lower rates than their rivals with lower profit margins because they are better able to finance fixed expenses and interest on debt, have a greater chance of surviving an economic downturn, and can fund fixed costs and debt obligations better.

The operating profit margin is frequently used to gauge the strength of a company's management since competent management may significantly improve a company's financial performance by controlling its operating costs.

**Operating margin (%) = Profit before tax/ Total revenue from operations**

Year	Zerodha	Angel One
2021	53.8%	32.84%
2022	56.4%	37.05%

Table 4.2.1.2 Operating Margin of Zerodha and Angel one

Interpretation:

In the year 2021 & 2022 Zerodha had an Operating Margin of 53.8% and 56.4% respectively, while Angel one had a ratio of 32.84% and 37.05%. This Shows Zerodha is more Profitable than Angel one.

**3. Net Worth:** Net worth is the difference between the asset and the liability of an individual or a company. Description: A high net worth relates to the good financial strength and ultimately good credit rating of an individual or a company. In business, net worth is also known as book value or shareholders' equity.

**Net worth = Assets – Liabilities**

<b>Year</b>	<b>Zerodha</b>	<b>Angel One</b>
<b>2021</b>	16444 million	11309.97 million
<b>2022</b>	37577.93 million	15843.77 million

Table 4.2.1.3 Net worth of Zerodha and Angel one

Interpretation:

In the years 2021 & 2022 Zerodha had a net worth of 16444 million and 37577.93 million respectively, while Angel One had a net worth of 11309.97 million and 15843.77 million. This shows Zerodha's Net worth is higher than Angel One's.

## **Chapter 5**

### **HYPOTHESIS TESTING**

A hypothesis describes what you anticipate will come out of your inquiry. It is a tentative, unproven answer to your research query. For some research projects, you may need to formulate many hypotheses that address different aspects of your study question.

A hypothesis shouldn't merely be a guess; it should be supported by a body of knowledge and established theories. It must also be testable in order for scientific research methods to be used to either confirm or refute it. (Such as tests, observations, and data analysis using statistics).

A relationship between two or more different kinds of variables is proposed by hypotheses.

- Anything the researcher modifies or regulates is referred to as an independent variable.
- An observation or measurement made by the scholar is a dependent variable.

To lessen the likelihood that research bias will influence your findings, be sure to note any control variables, Auxiliary variables or confounding variables as you go.

- H0- People do not choose Zerodha because it offers Security & better transparency  
H1- People choose Zerodha because it offers Security & better transparency

	<b>Security</b>	<b>Transparency</b>
<b>Zerodha</b>	42	42
<b>Angel One</b>	21	22
<b>None of the Above</b>	1	0

Table 5.1. Hypothesis 1 - Relationship between variables for testing

t-Test: Paired Two Sample for Means		
	<i>Security</i>	<i>Transparency</i>
Mean	21.33333333	21.33333333
Variance	420.3333333	441.3333333
Observations	3	3
Pearson Correlation	0.999136228	
Hypothesized Mean Difference	1	
df	2	
t Stat	-1.732050808	
P(T<=t) one-tail	0.112701665	
t Critical one-tail	2.91998558	
P(T<=t) two-tail	0.225403331	
t Critical two-tail	4.30265273	

Table 5.2 Hypothesis 1 - T-test

The Null Hypothesis i.e. People do not choose Zerodha because it offers Security & better transparency, is rejected as the P value of the t-test is greater than 0.05. Therefore, the alternative hypothesis i.e. People choose Zerodha because it offers Security & better transparency is accepted.

➤ H0- People who choose Angel One do not use it because of its better User Interface

H1 - People who choose Angel one use it because of its better user interface

	Usage	Interface
<b>Zerodha</b>	40	42
<b>Angel One</b>	18	21
<b>None of the Above</b>	6	1

Table 5.3. Hypothesis 2 - Relationship between variables for testing

t-Test: Paired Two Sample for Means		
	<i>Usage</i>	<i>Interface</i>
Mean	21.33333333	21.33333333
Variance	297.3333333	420.3333333
Observations	3	3
Pearson Correlation	0.988146444	
Hypothesized Mean Difference	1	
df	2	
t Stat	-0.397359707	
P(T<=t) one-tail	0.364749555	
t Critical one-tail	2.91998558	
P(T<=t) two-tail	0.72949911	
t Critical two-tail	4.30265273	

Table 5.2 Hypothesis 2 - T-test

The Null Hypothesis i.e., people who choose Angel One do not use it because of its better User Interface, is rejected as the P value of the t-test is greater than 0.05. Therefore, the alternative hypothesis i.e., people who choose Angel one use it because of its user interface is accepted

## Chapter 6

### **FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **Findings:**

##### Primary Data:

- Most of the respondents i.e., 98.4% do use Trading Apps for Investing while 1.6% of respondents do not invest.
- The majority of the respondents i.e., 90.6% have heard about Zerodha App while 9.4% of respondents have not heard about Zerodha App
- Most of the respondents i.e., 60.9% have heard about Angel One App while 39.1% of respondents have not heard about Angel One App.
- The majority of the respondents i.e., 67.2% use Zerodha App for Investing while 32.8% of respondents use Angel One App for Investing.
- Most of the respondents i.e., 65.6% think Zerodha is more user-friendly while 39.1% of respondents think Angel One is User friendly. 9.4% of the respondents found both apps are not user-friendly.
- From the above data, out of 64 respondents, the majority of the respondents i.e., 73.4% use Trading Apps for Buying Equity Shares while 21.9% of the respondents use to buy positional shares and 4.7% of the respondents use to buy/sell bonds.
- Most of the respondents i.e., 65.6% Believe Zerodha has a better user interface while 39.1% of respondents think Angel One has a better user interface and 1.6% respondents believe both apps mentioned above do not have a better use interface.
- Out of 64 respondents, the Majority of the respondents i.e., 65.6% respondents believe Zerodha provides more transparency while, 34.4% respondents believe Angel One provides more transparency.
- Most of the respondents i.e., 65.6% Feel Zerodha is more secure, while 32.8% Respondents believe Angel one is More Secure and 1.6% respondents believe both apps mentioned above aren't secure.
- From the above data, out of 64 respondents, the majority of the respondents i.e., 68.3% feel Zerodha offers the lowest brokerage fee while 31.7% of respondents feel Angel One offers the lowest brokerage fee.
- From the above data, out of 64 respondents, the maximum number of respondents (i.e., 67.2%) thinks Zerodha offers the best customer service while 32.8% % think Angel One offers the best customer service.



- Most of the respondents i.e., 56.3% use Trading View App to demonstrate Fundamental and Technical analysis while 23.4% of Respondents use Zerodha and 20.3% of respondents use Angel one to demonstrate Fundamental and Technical analysis.
- From the above data, out of 64 respondents, the majority of the respondents i.e., 45.3% used Intraday while 31.3% of the respondents use it every 2 hours. 17.2% of the respondents use it every 6 hours. 6.3% of the respondents use it every 12 hours.
- The majority of the respondents i.e., 40.6% of the respondents believe Security is a major factor before selecting any trading app, while 25.0% of the respondents believe in payment methods. 18.8% of the respondents believe in charges & Fees and 15.6% of the respondents believe in Market Updates.
- From the above data, out of 64 respondents, the maximum number of respondents (i.e., 67.2%) would like to recommend Zerodha to their Friends and families, while 32.8% of the respondents would recommend Angel One.
- Most of the respondents i.e., 46.9% of the respondents have been using trading apps for 1 Year – 3 Year, while 28.1% have been using less than 1 year. 25.0% of the respondents have been using for 3 Year – 5 year.
- The majority of the respondents i.e., 73.4% use Trading view for Chart Trading/analysis while 14.1% of the respondents use Zerodha. 12.5% of the respondents use Angel one.
- The Respondents were asked to rate Zerodha App. 54.7% of the respondents rated the App very good. 12.5% of the respondents rated the App Good. 17.2% of the respondents rated the App Neutral. 10.9% of the respondents rated the App Poor. 4.7% of the respondents rated the App very Poor.
- The Respondents were asked to rate Angel One App. 23.4% of the respondents rated the App very good. 7.8% % of the respondents rated the App Good. 23.4 % of the respondents rated the App Neutral. 31.3 % of the respondents rated the App Poor. 14.1 % of the respondents rated the App very Poor.

#### Secondary Data:

- As a general rule, ratios above 1.00 may indicate a company is able to pay its present debts as they become due, while ratios below 1.00 may indicate a company may struggle to meet its short-term obligations.

In the year 2021 & 2022 Zerodha had a current ratio of 1.07 times & 1.04 times respectively, while Angel one had a ratio of 1.27 times & 1.24 times. This shows they both are eligible to pay short term debts as they become due.

- In the year 2021 & 2022 Zerodha had a Operating Margin of 53.8% and 56.4% respectively, while Angel one had a ratio of 32.84% and 37.05%. This Shows Zerodha is more Profitable than Angel one.
- In the year 2021 & 2022 Zerodha had a net worth of 16444 million and 37577.93 million respectively, while Angel one had a net worth of 11309.97 million and 15843.77 million. This shows Zerodha's Net worth is higher than Angel One's.

## **Conclusions:**

The new idea in the stock market is online trading. Online trade is still in its infancy in India. Trading stocks has become simpler thanks to online trading because it now allows users to do so while seated at home. Anyone can now easily enter the stock market. In conducting the deal over the internet, there are several issues. The investors' loyalty to their traditional brokers and reliance on their brokers' recommendations is a major issue for online traders. Another significant issue is that some people lack comprehensive knowledge about online trading. It also revealed that the major factors of the growth of Trading Apps, because of no middleperson, less brokerage, less time Consuming.

With the assistance of 64 consumers in Mumbai and Navi Mumbai, research was done to identify which trading app is preferable for customers. Yet, it is safe to say that internet trading has a bright future considering the fact that an increasing number of trades are being made online. From the entire study, it can be inferred that people in Mumbai and Navi Mumbai favor Zerodha over Angel One. The beginners looking for trading apps will benefit most from this study.

## **Recommendations:**

Following are some recommendations based on findings of the study:

- Trading Apps Should educating the public about investments so that more people will indulge themselves in using such trading apps
- Angel One should Improve their user interface so it will be easy for the beginners
- Zerodha and Angel One should improve their chart analysis/Trading
- It would be advised to periodically review customer feedback to determine their public relationship status.
- Angle one should make the terms and conditions of the Investment options understandable to the Investors/traders.
- Simple vernacular language should be used in policy documents.

## **Chapter 7**

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## **Chapter 8**

### **Annexure**

**Name**

**Age**

- 18-25
- 26-30
- 31-40
- 41 and above

**Gender**

- Male
- Female
- Other

**Occupation:**

**Income**

- Unemployed
- Below 10 Lakhs
- 10 Lakhs - 20 Lakhs
- 20 lakhs and Above

**Do you know about Zerodha app?**

- Yes
- No

**Do you know about Angel One app?**

- Yes
- No

**Which app do you use for Trading?**

- Zerodha
- Angel One
- None of the above

**Which app do you feel is easier to use?**

- Zerodha
- Angel One
- Both
- None of the above

**For which type of Investment do you use this app for?**

- Equity Shares
- Positional Shares
- Bonds
- Other:

**Which trading app has better user interface?**

- Zerodha
- Angel One
- None of the above

**According to you, which app do you feel is more secure?**

- Zerodha
- Angel One
- None of the above

**Which app do you think, offers a better transparency?**

- Zerodha
- Angel One
- None of the above

**According to you, which provides lowest brokerage charge?**

- Zerodha
- Angel One
- Both
- None of the Above

**According to you, which app offers best customer service?**

- Zerodha
- Angel One
- None of the above



**Which app demonstrates you Fundamental & Technical analysis in a better manner?**

- Zerodha
- Angel One
- Trading View
- None of the above

**How often do you use this app daily?**

- After 2 hours
- After 6 Hours
- After 12 Hours
- Constant {Intraday}
- Never

**What are the parameters that you consider before choosing a trading app?**

- Charges & Fees
- Market Updates
- Payment Methods
- Security

**What are the parameters that you consider before choosing a trading app?**

- Charges & Fees
- Market Updates
- Payment Methods
- Security

**How long you have been investing in trading apps?**

- Less than 1 Year
- 1 Year - 3 Year
- year - 5 Year
- More than 5 Years

**Which App do you use for Chart Trading/Analysis?**

- Zerodha
- Angel One
- Trading View
- None of the Above

**How much would you rate Zerodha App for Trading?**

Very Poor      1      2      3      4      5      Very Good

**How much would you rate Zerodha App for Trading?**

Very Poor      1      2      3      4      5      Very Good