

Tapping the screen: what drives retail investors on trading apps?

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Abstract. The study aims to explore the key attributes that influence the decision-making processes of retail investors when investing through trading applications. Utilising a structured questionnaire based on a 5-point Likert scale, the research gathers both demographic data and responses related to various factors impacting investment choices. Respondents are recruited through snowball sampling, primarily via WhatsApp and other social media platforms, to ensure wide outreach among app-based retail investors. The insights derived from this study are intended to benefit multiple stakeholders. Investment advisors and trading app developers can leverage the findings to attract new investors and enhance user engagement, while government regulators can use the results to craft targeted financial education initiatives. Although prior research has investigated investor behaviour, limited attention has been given to the evolving patterns of retail investment behaviour in the context of emerging technologies—particularly mobile trading applications. This study seeks to bridge that gap by providing a contemporary understanding of retail investor psychology in the digital investment era.

Keywords: Investment Analysis, Trading Applications, Investment Decisions, Factor Analysis, Financial Behaviour.

1 Introduction

Retail investors are influenced by several rational and irrational variables like age, gender, occupation, earnings, marriage, risk appetite, education, and a financial advisor's recommendation while deciding where and when to invest. Economists at NSE India said the share of individual investors on the NSE by turnover rose from 33% in FY16 to 45% in FY21. The change in the demographics of Indian investors became strikingly evident in the aftermath of the pandemic in 2020. According to SEBI, the number of new Demat accounts rose to more than one crore between April 2020 and January 2021. Retail investors started to flood the market. They began using online platforms and relied on mobile apps to access markets from their homes. This led to a rise in the popularity of smartphone apps that promise to democratize investing. These apps allow retail investors, who are relatively new to investing, to trade different securities quickly and inexpensively, often with no commission cost. Prior to the emergence of online trading, individuals held tangible share certificates. Yet, the arrival of mobile applications has revolutionised stock trading, making it a regular occurrence for every person in India. Now, individuals can effortlessly find their stocks, input trading quotes, and execute transactions swiftly, all taking place in a fraction of a second. These mobile apps have instilled a feeling of trust and security among Indians by affording them complete control over the management of their investment portfolios. Social media has become a vital tool that investors use and rely on to make their investment decisions. A study at Pace University suggested a direct relationship between these online social media and the share price of organisations. This paper is organised into five sections. The first section introduces the problem being addressed, and the second discusses existing literature. The Research Methodology is elucidated in Section 3. Discussion of results and conclusion are covered in sections 4 and 5, respectively.

2 Literature review

[1] states that individuals make informed decisions by obtaining various details of organisations, such as accounting, neutral, and advocate information. Several other studies also affirm that these pieces of information influence investors' decisions [2]. Stock selection is influenced the most by accounting information, according to [3]. A stock's performance is critical information that investors consider while preparing their portfolio [4]. The easy and quick availability of shares in the capital market also impacts the amount individuals invest. A positive correlation was found between stock price and liquidity. A stock split reduces the stock price and increases liquidity, enabling small investors. A positive sentiment in the market when a company splits its stock indicates profitability. [5] concludes that future earning potential is considered while making investment decisions. [6] found a positive correlation between forecasted income and stock returns. Adverse media reports result in a drop in share price and increased share volume in the secondary market. Macroeconomic indicators such as GDP, inflation, unemployment, and interest rates influence stock prices. The technical analysis predicts future stock prices from past performance by observing price and volume changes. The Internet is a vital source for investors, providing a plethora of company-related information [7]. It has revolutionised financial transparency for public companies and investors. Consequently, investors react to information circulated by mass media such as the press. Stock prices vary more frequently on news announcement days. Stockbroker recommendation influences investment decisions [4]. [8] found that positive analyst coverage causes premium stock pricing, and negative

coverage is associated with discounted prices. Analysts' forecasts have notable pricing effects, conveying incremental information content. A significant relationship exists between information in online social media and investment decisions in Malaysia. Studies indicate that some apps are addictive, risky, and dangerous [9]. Also, with recent trends, there is a high chance of speculation with stock trading, which results in high-risk and irrational decisions. It also indicates that prejudices and biases are dangerous. Technology tools are often created to improve individuals' and organisations' decision-making. For instance, the World Wide Web enabled people to be more informed and make complex decisions with minimal assistance. Advantages like these have bolstered the growth of mobile Internet and apps, enabling interactions with the rest of the world and decision-making almost anytime and anywhere. However, these benefits do not guarantee improved decision-making. Previous research suggests that it is difficult to ascertain the impact apps have on the decision quality of individuals, where several external factors also act simultaneously. It was found that finance app usage time overlaps with banking and trading hours. Apps feed into behavioural problems. Investors overestimate their skills and do not pay heed to legitimate information. [10] showed that there are demographic differences between those who do and do not use smart devices for trading in the UK. They also found differences in the performance and nature of trading decisions of these two groups. Those who used apps for trading achieved improved performance and risk control but exhibited less trading discipline. [11] proposed a framework for predicting the use of technology, incorporating factors such as difficulty faced in using the technology and the relevance for friends and family. [12] found that most likely among those who adopt technology early are young males who are computer savvy and prefer the latest information. Younger consumers aged 25 to 34 tend to be keener on using apps. [13] suggest that apps enable users to access vast quantities of data and that information overload has an adverse impact on decision quality. The Indian government and SEBI worried about the non-participation of Indian retail investors in the stock market. They suggested that financial literacy, accessibility, and easy understanding can boost the same [14]. Hence, the current study aims to identify the factors that affect the retail investor's investment in trading apps.

3 Research methodology

3.1 Data source

On the basis of the research reviewed in section II, nine variables were significant in the Indian retail investor's context. Primary data was collected through a questionnaire containing these nine variables on a 5-point Likert scale. The questionnaire has twenty-one questions under two parts. The first part has eight questions on the demographics of the investors, and the second has thirteen questions relating to the factors influencing investment decisions. The respondents had to choose the importance of each of the attributes. Respondents were approached personally and via social media to participate in the survey. The respondents were assured of their anonymity during this process. The list of investors was extended across India using the snowball sampling technique. The respondents needed to enter a number between 1 and 5 for each of the nine attributes, with 5 being a very important attribute for investing. The sample collected for the study is 155 responses, but after 142 responses were taken, the empirical results were obtained.

The responses received and included in the empirical estimation for the current study involve the respondents from the following states: Andhra Pradesh, Chhattisgarh, Gujarat,

Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, Telangana, Uttar Pradesh, and West Bengal. Most of the respondents are under the age of 35 years with different genders, education, and investment experience. The profile of the respondents is presented in Table 1. The average importance of all attributes and the standard deviations are calculated and shown in Table 2.

3.2 Reliability test

The questionnaire was tested for reliability using Cronbach's Alpha scale. The nine attributes were checked for internal consistency, and Cronbach's alpha was found to be 0.701, which satisfies the benchmark value of 0.7, as suggested by [15]. The factors 'Advice from friends/family' and 'Recommendation from social media influencers' were removed from the study since they resulted in a lower Cronbach alpha value.

3.3 Factor analysis

Following the reliability test, we used factor analysis, which is an unsupervised vital technique in machine learning, to find significant factors impacting the investment decisions of app users. The seven variables could be grouped into two factors with more than one eigenvalue, as shown in Table 3. Factor 1 is named 'Organisation fundamentals' because it comprises fundamental analysis components. Factor 2 is called 'Mediator reliance' since it includes Advice from a financial broker.

4 Discussion of results

Table 1 explains the demographics of the respondents. Eighty-five per cent of the respondents are male, and fifteen per cent are female. 62.5 per cent of the respondents fall in the age category of 25-35 years; the rest, 37.5 per cent, are under 25 years. 67.5 per cent have a Master's degree qualification, and 32.5 per cent have a Bachelor's degree. The study captured the frequency of monitoring the investments by the respondents. When it comes to overseeing their investments, people display a variety of preferences regarding how often they do so. A substantial portion, constituting 37.5%, chooses to engage in daily monitoring, indicating a vigilant and hands-on approach to managing their financial portfolios. An equivalent percentage, also at 37.5%, opts for a weekly review, balancing regular supervision and flexibility in their investment strategies. Meanwhile, 17.5% of investors prefer a monthly check-in, indicating a more measured and less frequent approach to monitoring. Lastly, 7.5% of individuals monitor their investments less frequently than once a month, suggesting a more relaxed and less intensive approach to tracking their financial assets. This array of monitoring habits highlights people's diverse strategies to handle their investments, tailored to their unique preferences and financial objectives.

As seen from Table 2, the most essential attribute for investment is the company's future earning potential (Average: 4.62 and Std. Dev.: 0.67), and the least important is Recommendations from social media influencers (Average: 2.13 and Std. Dev.: 1.16). Organisation fundamentals are the most important factor impacting investors' decisions when using apps. It has five sub-factors, which are 'Past performance of stock' (0.82), 'Future earning potential of the company' (0.66), 'Technical indicators' (0.72), 'Financial health of the company' (0.66), and 'News reports on the company' (0.65). The second factor – Mediator reliance – has two subfactors, which are 'Dividends paid by the stock' (0.8) and 'Advice from financial advisor/broker' (0.66). The study drops two factors due to low

eigenvalue closest to zero, namely Advice from friends and family and Recommendation from social media influencers. Table 3 indicates the eigenvalue of the rest factor. In Table 4, most factors have uniqueness between 0.3 and 0.7, which should be represented as a single factor.

Table 1. Respondents' Profile

Demographic	%
Gender	
Male	85
Female	15
Age group	
< 25 years	37.5
25-35 years	62.5
Educational background	
Bachelor's degree	32.5
Master's degree	67.5
Frequency of monitoring investments	
Daily	37.5
Weekly	37.5
Monthly	17.5
Less than once a month	7.5

(Source: Authors Own Work)

Table 2. Mean and Standard Deviations of the Variables

Variable	Average	Standard deviation
Past performance of stock	4.51	0.71
Dividends paid by the stock	3.26	1.03
Future earning potential of the company	4.62	0.66
Technical indicators	3.79	1.07
Financial health of the company	4.54	0.71
News reports on the company	4.03	0.86
Advice from financial advisor/broker	2.97	1.12
Advice from friends/family	2.79	1.14
Recommendation from social media influencers	2.13	1.16

(Source: Authors Own Work)

Note: SPSS calculation by the author

Table 3. Factor Analysis with Eigen Values

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor 1	2.79	1.49	0.4	0.4
Factor 2	1.3	0.47	0.18	0.58
Factor 3	0.83	0.03	0.12	0.7
Factor 4	0.8	0.17	0.11	0.82
Factor 5	0.63	0.2	0.09	0.91
Factor 6	0.43	0.22	0.06	0.97
Factor 7	0.21		0.03	1

(Source: Authors Own Work)

Table 4. Variable Groups, along with Uniqueness

Variable	Factor 1	Factor 2	Uniqueness
Past performance of stock	0.82	-0.23	0.28
Dividends paid by the stock	0.2	0.8	0.32
Future earning potential of the company	0.66	-0.09	0.55
Technical indicators	0.72	-0.13	0.47
Financial health of the company	0.66	-0.36	0.43
News reports on the company	0.65	0.13	0.56
Advice from financial advisor/broker	0.52	0.66	0.3

(Source: Authors Own Work)

5 Conclusion

The Organization's fundamentals and mediator reliance are critical factors in making investment decisions via trading apps. However, it must be noted that young app users give little importance to Advice from friends, family, or social media influencers. This contrasts with what earlier research showed for investors without the influence of trading apps. Regarding analysing the fundamentals, tech-savvy Gen Y and Gen Z investors also give a similar focus as conventional Gen X investors. The study's significant findings will help the trading app's various advisors and application developers. This can help rope in more investors. The exhaustive trading apps will also help retail investors make informed decisions. The government and policymakers want to promote digitalisation and increase equity market participation. The easy accessibility of the investors will lead to more participation in the capital markets, and the apps also provide financial information, which meets the ultimate aim of financial literacy of the government and the regulators. The regulators can make specific policies related to technology usage and financial education

programs. While previous research has examined the influences on investors similarly, there is little knowledge about retail investors' behaviour following the emergence of recent technology, such as trading mobile applications, which this study attempts to address. The study can be extended to different populations to test its authenticity. Future studies can be carried out around TAM financial apps and investments.

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