International Journal of Innovative Research in Engineering and Management (IJIREM)
ISSN(Online): 2350-0557, Volume-11, Issue-2, April 2024
https://doi.org/10.55524/ijirem.2024.11.2.9
Article ID IJIRD-1322, Pages 45-49
www.ijirem.org

An Impact of Mobile Trading Apps on Investment Decision of Individual Investors

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Received: 1 April 2024 Revised: 12 April 2024 Accepted: 21 April 2024

ABSTRACT- In recent years, the investors have increasingly turned to Mobile trading apps for making investments in shares, Bonds and Mutual funds. It is significant to know, whether these Apps affect the investor decision. The study aimed to understand the impact of Mobile trading apps on investment decision of individual investors. This study examined the influence of App recommendations, Ratings, Ease of use, Personalization and Perceived information on investment decision. The Purposive sampling technique is utilized to collect the data from 200 respondents and analysed using Percentage analysis, Chi square analysis, Correlation and Regression analysis. Results indicated that the Mobile trading apps influence the investor decision. The findings will be helpful for prospective investor to use mobile trading apps and assist companies involved in making application to understand the investor preference.

KEYWORDS - App recommendation, Ease of use, Investment decision, Investors, Mobile trading apps, Perceived information, Personalization, Ratings.

I. INTRODUCTION

In the dynamic world, it is essential for the people to outpace their money from inflation. To achieve this, investment is a key strategy widely used by the people as it provides various opportunities to the investors. There are variety of investment avenues are available for investors, they are Non marketable financial assets, Equity shares, Bonds, Money market instruments, Mutual fund schemes, Life insurance policies, Real estate, precious objects and financial derivatives. Among these various investment areas it is important to make decision. The investment decisions attain much more significance with the use of technology and the quickly changing information. And it also applicable for making investment in financial market which contains risk and lifelong impact for their wealth management.

The widespread usage of mobile phones leads the way to development of mobile trading apps in late 1990 s. The first online trading platforms were created by the company called Tradeplus in 1982 which was later acquired by E*TRADE also started offering online brokerage services in the early 1990s. In 1992 Globex became the first electronic trading app to reach the market. India introduced online trading platform in February 2002. The mobile trading apps makes investment easier through anytime and anywhere access and provision to other services like market updates, analysis tools, commission free services, bill payments, personalized recommendations and so on. The Mobile trading apps offer vast opportunities for wealth creation and well informed decision. This great evolution of technology adoption in financial markets reshapes the investor's behaviour towards the investment decision. So exploring the interplay between the Mobile trading apps and investor perception and utilization towards it is crucial for both the financial institutions and investors.

II. LITERATURE REVIEW

Yu Zhang [1] investigates the comparison between the individual investors who depends on mobile trading apps recommendations or professional consultant advice. The study suggests that individuals should rely on their own knowledge to take decisions based on timely suggestions provided by the apps. **Annisa Nuraini Tahir, Dwi Nastiti Danarsarj [2]** Investigate that degree of effect of utilization App based Investment platform on rational investment decision making made by retail investors. Overconfidence, loss aversion and representativeness is considered as major variable which influence decisions of investors. The results prove that the part of investment application can be beneficial to the retail investors. **Marie Brière [3]** investigates the four emerging trends in retail investor behaviour relevant to technological changes: the use of apps, robo advice, social media platforms, and crypto investment. These digital services had negative impact on investment behaviour such as disposition effect but the robo advisors greatly helped retail investors to protect them from the investment mistakes. **Amar Johri, Mohammad wasiq, Harpreet haur, Mohammad Asif [4]** examined the perception of the investor on stock market investment through online application. The results states that user awareness, benefits and choice of investment, reliability, safety, risk factors, technical aspect, financial literacy, and dependency affect the user adoption behaviour in using stock trading apps.**Ronia Liza Mathew [5]** explored the relationship within various factors and its impact on individual investor investment decisions making behaviour. The variables supported this study are self-efficacy, risk attitude, psychological bias, financial literacy, emotional intelligence. The results proved that retail investor investment decisions are influenced by their financial

literacy and financial self-efficacy. **Lifang Peng, Shuaikang Hao [6]** finds the platform recommendations and its influence on investor decision. The study use three important variables like Fund flow, Fund performance and controls. Results revealed that the average investor values the platform recommendations when allocating individuals' wealth, but it could not help investors to make better investment decisions. **Kashfia sharmeen [7]** investigate the importance of stock trading using DSE mobile trading application during covid19 pandemic. The findings reveals that buy, sell and execution of orders increased after the pandemic. **Antti Paatela [8]** investigates the investor priorities and reasoning to improve the investing process by investors and online investing platform service providers. This study finds many reasons for not adopting the technology as decisions support. The reasons are incapability with investors' investment approach, usability issues and lack of transparency. **Mohan Anand, V.S. Abhilash [9]** understand the significance of if investor behaviour intention towards the trading apps in India. The study concludes that the Efficiency, Risk variable has more influence on investor behaviour. **Ratna Sari, K. Kusnanto, Munarni Aswindo [10]** identifies the factors of stock investment decision making by investors in the Indonesian stock market. This study finds that the fundamental analysis plays a significant contribution in stock investment decision making and additionally market sentiment and herd behaviour affect the investment decision. **Anish Guddati1 and Dhruva Bhat [11]** explore the trading apps exclusively Robinhood and the role in providing safe trading opportunities. This paper mainly focuses about the business model of Robinhood. The results concluded that the Robinhood app amplify the behavioural biases. **Xiao Cen [12]** provides novel evidence on how Smartphone trading technology affects retail-investor behaviour and mutual fund performance. This study compares the adopters and non-adopters to technology. The result reveals that technology adoption reshapes the investor's response to short term signals. The non-adopters respond to the market sentiments. **Sayan Chaudhry, Chinmay Kulkarni [13]** evaluate the trading application and recommend directions to improve the design of these applications. This study finds that the popular trading apps do not follow the design patterns and encourage healthier trading behaviour. **Suzanee Malhotra [14]** investigates the key features of mobile trading apps and its impact on consumer choices and preference for specific trading apps from user perspective. This study finds investor prioritizes app ease of use, security and privacy when selecting Mobile trading apps. **V.C.Shankar [15]** investigate the factors influenced the investors while investing and liquidating of securities through online trading. The variables covered in this research are perceived risk, awareness, intermediaries, convenience. This study concluded that the digital platform has significant effect on investment decisions.

III. RESEARCH OBJECTIVE

The objective of the study is to identify the relationship between the demographic factors and preference of Mobile trading apps. Further it examines the impact of attributes in Mobile trading apps on investment decision of individual investors and it explores the overall level of assistance provided by Mobile trading apps for making investment decision.

IV. NEED FOR THE STUDY

In the recent years the emerging of various Mobile trading app not only assists the investors to make investments but also provide numerous features to the investors. Over the period the investors utilize the features to support and make informed decisions. The immense quantity of real-time market data, company specific information and analysis tools available in Mobile trading apps motivates this study to investigate whether this huge amount of data assists investors in making well-informed judgments or contributes to decision paralysis is critical for understanding the link between information access and decision-making.

V. RESEARCH METHODOLOGY

This study uses a sample of investors who has experience in using mobile trading apps for making investments in shares, Bonds and Mutual funds. The purposive sampling method is used to select the samples with prior experience in using Mobile trading apps for investing in financial market. The data was collected from 200 samples through structured questionnaire. The descriptive research design is used to describe the perception and utilization of Mobile trading apps for making investment decisions. The collected data was analysed in SPSS tool by performing various analysis including Percentage analysis, Chi square analysis, Correlation analysis and Regression analysis to test the hypothesis.

VI. DATA ANALYSIS AND INTERPRETATION

A. Reliability Test

Reliability analysis (Cronbach's alpha) was performed to check the construct internal consistency. SPSS was used to assess the reliability. Cronbach's alpha value for the study is 0.872 which is higher than 0.70, it indicate that the data was highly reliable and internally consistent.

Table 1: Demographic Profile of the respondents

Variable	Category	No. of respondents	Percentage
Gender	Male	147	42.2
	Female	53	15.2
Age	18 – 25	55	15.8
	26 – 35	72	20.7
	36 – 45	45	12.9
	Above 45	28	8.0
Level of education	High school graduate	2	0.6
	Bachelor's degree	91	26.1
	Master's degree	98	28.2
	Ph.D	1	0.3
	Others	8	2.3
Occupation	Employed	130	37.4

	Students	32	9.2
	Business	31	8.9
	Others	7	2.0
Annual income (in Rs)	Less than 50000	43	12.4
	50001 – 300000	39	11.2
	300001 – 600000	73	21.0
	Above 600000	45	12.9

B. Chi Square Analysis

H0: There is no association between demographic factors and preference of mobile trading apps.

Table 2: Demographic factors and preference of mobile trading apps

Factors	Pearson chi square value	Sig. value	Decision
Gender	3.173a	0.366	Accept H0
Age	13.982a	0.023	Reject H0
Education	8.641a	0.733	Accept H0
Occupation	27.961a	0.001	Reject H0
Income	11.742a	0.028	Reject H0

The above table 2 shows the significance value for Chi square analysis, which is less than 0.05 ($p<0.05$). Therefore the Null hypothesis for Age, Occupation and Income is rejected. Hence there is an association between the Age, Occupation, Income and preference of mobile trading apps. In addition, the P- value for Gender and Education is greater than 0.05 ($P> 0.05$). So the Null hypothesis is accepted. Here there is no association between Gender, Education and Preference of mobile trading apps.

C. Correlation Analysis

H0: There is no significant relationship between the demographic factors and level of assistance provided by mobile trading apps.

Table 3: Demographic factors and Assistance for making investment decision

Factors	Sig. value	Pearson correlation	Decision	Nature
Gender	0.427	0.056	Accept H0	Positive
Age	0.00	-.294	Reject H0	Negative
Education	0.811	-0.017	Accept H0	Negative
Occupation	0.379	-0.063	Accept H0	Negative
Annual income	0.05	-0.063	Reject H0	Negative

Table 3 denotes that the Null hypothesis for the Age and Annual income is rejected ($P<0.05$). Hence there is a significant relationship between the Age and income of the respondents with the assistance provided by apps for making investment decision. The Null hypothesis for Gender, Educational qualification, Occupation is accepted ($p>0.05$). Hence there is no significant relationship between Gender, Educational qualification, Occupation with the investment decision. The positive correlation shows that the Gender is positively correlated with dependent variable. The Age, Educational qualification, Occupation and Annual income are negatively correlated with level of assistance provided by mobile trading apps for making investment decision.

H0: There is no significant relationship between Independent variables and Assistance for making investment decision.

Table 4: Independent variables and Assistance for making investment decision

Variables	Pearson correlation	Sig. value	Decision	Nature
App recommendation	0.614	0.00	Reject H0	Positive
Ratings	0.58	0.00	Reject H0	Positive
Ease of use	0.64	0.00	Reject H0	Positive
Personalization	0.651	0.00	Reject H0	Positive
Perceived information	0.662	0.00	Reject H0	Positive

Table 4 denotes that the Null hypothesis is rejected ($P<0.05$). Hence there is significant relationship between the App recommendation, Ratings, Ease of use, Personalization, Perceived information and Assistance for making investment decision. The positive Pearson correlation value shows that the independent variables are positively correlated with investment decision. This indicates that investor who considers App recommendation has positively influenced to make decision and Ratings as factor impacting their investment decision. Further the investor valuing user friendly interface, personalized filters and financial information to align their decision with investment goals.

D. Regression Analysis

Table 5: App recommendation towards Assistance for making investment decision

R Value	R square value
.614a	.377
a.Predictors: (Constant), App recommendation	

In the above table 5 shows the regression model of App recommendation towards Assistance provided by apps for making investment decision. From the above table 5 the R value is .614a indicates the relationship between assistance for investment decision and the App recommendation (Independent variable) is quite moderate and positive. The value of R square is 0.377 which means that about 37.7% of the Assistance for making investment decision variation is explained by App recommendation (Independent variable).

Table 6: Ratings towards Assistance for making investment decision

R Value	R square value
.580a	.336
a. Predictors: (Constant), Ratings	

The table 6 shows the regression model of Ratings towards Assistance for making investment decision. From the above table 6 the R value is .580a indicates the relationship between Ratings (Independent variable) and Assistance for making investment decision is quite moderate and positive. The value of R square is 0.336 which means that about 33.6 % of the Assistance for making investment decision variation is explained by Ratings (Independent variable).

Table 7: Ease of use towards Assistance for making investment decision

R Value	R square value
.640a	.409
a.Predictors: (Constant), Ease of use	

The table 7 denotes the Regression model of Ease of use towards Assistance for making investment decision. From the above table 7, the R value is .640a indicates the relationship between Ease of use (Independent variable) and Assistance for making investment decision is quite moderate and positive. The value of R square is 0.409 which means that about 40.9% of the Assistance for making investment decision variation is explained by Ease of use (Independent variable).

Table 8: Personalization towards Assistance for making investment decision

R Value	R square value
.651a	.424
a. Predictors: (Constant), personalization	

The table 8 denotes the Regression model of Personalization towards Assistance for making investment decision. From the above table 8, the R value is .651a indicates the relationship between Personalization (Independent variable) and Assistance for making investment decision is quite moderate and positive. The value of R square is 0.424 which means that about 42.4% of the Assistance for making investment decision variation is explained by Personalization (Independent variable).

Table 9: Perceived information towards Assistance for making investment decision

R Value	R square value
.662a	.438
a. Predictors: (Constant), Perceived information	

Table 9 depicts the Regression model of Personalization towards Assistance for making investment decision. From the above table 9, the R value is .662a indicates the relationship between Perceived information (Independent variable) and Assistance for making investment decision is quite moderate and positive. The value of R square is 0.438 which means that about 43.8% of the variation investment decision is explained by Perceived information (Independent variable).

Table 10: Independent Variables towards Assistance for making investment decision

	B	Std. Error	Sig.
(Constant)	-.818	.324	.012
App recommendation	.271	.081	.001
Ratings	.045	.082	.588
Ease of use	.252	.116	.031
Personalization	.188	.119	.114
Perceived information	.433	.128	.001
R value	.749a		
R square value	.560		
a. Predictors: (Constant), Perceived information, App recommendation, Ease of use, Ratings, Personalization			

Table 10 depicts the Multiple Regression model of Independent variables (App recommendation, Ratings, Ease of use, Personalization and Perceived information) towards Assistance for making investment decision. From the above table 10, the R value is .749a indicates the relationship between Independent variables and Assistance for making investment decision is quite Strong and positive. The value of R square is 0.560 which means that about 56% of the variation in investment decision is explained by the App recommendation, Ratings, Ease of use, Personalization and Perceived information.

VII. FINDINGS

The mobile trading apps are highly preferred by male who ages between 26 – 35 years with an annual income ranging from Rs.300001 – 600000. This study found that investor prefer monthly investments in Mutual funds by considering the Price of the investment, Historical returns, Company performance and risk level. This study focused only the investors who have experience in using mobile trading apps and they highly preferred the Zerodha kite app. The majority of investors have below one year experience, in using mobile trading apps preferred to often visit the apps. The results of the study proven that there is no impact of Gender, Educational qualification of investors on preference of Mobile trading apps. But it has significant impact of Age, Occupation and Income of the investors towards their preference. Similarly the Age, Education, Occupation and Income level of the investors have negatively related with the assistance level they received from mobile trading apps for making investment decision. The investment decision of individual investors have moderately influenced by App recommendation, Ratings, Ease of use, Personalization and perceived information

VIII. SUGGESTIONS AND CONCLUSION

The introduction of digital medium and developments of apps had significantly accelerated the investor intention to use the Mobile trading apps. With the help of Mobile trading apps, everyone may invest anytime from anywhere. The study aims to analyse the impact of mobile trading apps on investment decisions of individual investors. The study reveals that investors rely on financial information provided by apps so the apps should assure that the information they provide is accurate, up to date and covering company performance and market news. This study suggest that the investors can utilize the personalized features to choose the securities, funds and utilize the financial information provided by mobile trading apps for fundamental research. They can further consult app recommendation, Expert ratings and Fund ratings to support their decision. The findings will be helpful to the prospective investors in understanding whether to consider the Mobile trading apps before making an investment decision and the companies involved in running or making such applications to understand the investor preference.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

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