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A Study of Impact of Financial Technology (Fintech) on Retail Investors in Trading Securities.

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Abstract:
The rapid evolution of Financial Technology (Fintech) has fundamentally transformed the landscape of securities trading, particularly for retail investors. This study investigates the impact of Fintech on retail investors by analyzing various dimensions such as accessibility, cost efficiency, and user experience. With the advent of online trading platforms, robo-advisors, and blockchain technology, retail investors now have unprecedented access to financial markets. These innovations have democratized trading, enabling individuals to participate in securities markets with lower fees, reduced barriers to entry, and enhanced transparency. The study employs a mixed-method approach, combining quantitative analysis of trading data and qualitative surveys of retail investors to capture the breadth and depth of Fintech's influence.The rapid evolution of financial technology (Fintech) has significantly transformed the landscape of retail investing, particularly through the proliferation of investment apps. These apps have democratized access to financial markets, providing retail investors with tools and resources previously reserved for institutional investors. This study explores the impact of Fintech on retail investors in trading securities, focusing on how investment apps influence trading behaviors, decision-making processes, and overall market participation. By leveraging a combination of quantitative data analysis and qualitative surveys, the research aims to uncover the extent to which these technologies enhance or hinder retail investor performance, market efficiency, and financial literacy.

The findings suggest that investment apps have both empowering and challenging effects on retail investors. On the positive side, these platforms offer user-friendly interfaces, real-time data, and educational resources, which can enhance market participation and investor confidence. However, the study also highlights potential risks, such as increased susceptibility to speculative trading, information overload, and behavioral biases induced by app design and functionality. The research underscores the need for regulatory frameworks to ensure investor protection and the importance of continuous financial education to help retail investors navigate the complexities of modern financial markets effectively.

Keywords: Fintech, Investment Apps, Trading Securities,

Introduction:

Personal investment accounts are opened individually by investors to handle a variety of financial assets together including stocks, bonds, derivatives, funds, and bank retail products. Personal investment accounts have various forms such as employer-sponsored accounts, taxable accounts, and retirement accounts. Managing investments personally helps to have control over portfolio investments and thereby achieve the financial objectives. Personal investment accounts give investors a platform to make decisions regarding allocating their funds. Considering the possible risk and investment criteria, one can conveniently handle and control the funds through personal investment accounts.

Top 10 Fintech application for investment:

Investment apps are mobile applications designed to facilitate the process of investing in financial markets. These apps allow users to buy, sell, and manage various investment products directly from their smartphones or tablets. Investment apps typically offer a range of features such as real-time market data, portfolio tracking, investment research, educational resources, and tools for executing trades. They may also include features like automated portfolio management, goal-based investing, and personalized recommendations to help users optimize their investment strategies. Investment apps have become increasingly popular due to their convenience, accessibility, and user-friendly interfaces, making investing more accessible to a wider range of individuals.

Sr.no	Online Investment App
1	Zerodha Kite
2	Groww
3	Upstox
4	Paytm Money
5	Angel Broking
6	ICICI Direct
7	Kotak Stock Trader
8	HDFC Securities Mobile

9	5paisa
10	Motilal Oswal MO Investor

Source: Multiple Sources

Benefits of Fintech Investment Apps:

1. Convenience and speedy transactions: Customers are able to buy and sell stocks with only a single tap on the screen thanks to the convenience of online banking, which enables transactions to be completed swiftly and effectively. Smartphones and applications have made the process of exchanging funds much easier and more accessible to everybody, regardless of location, as a result of the proliferation of digital transfer facilities established by numerous financial institutions. Through the utilization of a live share market software for iOS, such as the MO Investor app or its counterpart for advanced traders, the MO Trader app has completely eliminated the hassles associated with online trading.

2. Cost-efficiency: The broker fees that are associated with online trading are cheaper than those that are associated with traditional stockbroker fees. Furthermore, these broker fees are flexible, based on the volume of the investor's stocks. In addition, the Stock Systematic Investment Plan (SIP) approach is a feature that can be found on apps such as the MO Investor app. Because of this feature, you will be able to reap the benefits of compounding on investments that are not as large. To further protect your portfolio from the effects of short-term market changes, you can make use of rupee cost averaging to your advantage.

3. Easy to use interface and smart tracking feature: When you trade online, it is simple to keep track of your investments, as well as your profits and losses, whenever it is convenient for you to do so. For example, the MO Investor app comes featuring a three-click mutual fund SIP feature that presents a comprehensive update of your SIPs. This feature is available to users. In addition to this, you have access to information that can assist you in monitoring which schemes are working well, as well as reviews and rankings from industry professionals. Making investments has never been simpler than it is now, thanks to clever auto-filled SIP forms. When it comes to the movement of prices, you have the ability to activate price alert notifications with the assistance of a stock price alert app for iOS. The same example may be utilized for a stock watch app for iOS, since the MO Trader app comes with a tool called the "global search bar tool." With this tool, you are able to construct your own watch list and receive updates in real time.

4. Convenience: Investment apps allow users to manage their investments anytime, anywhere, using their mobile devices, offering unparalleled convenience and flexibility.

5. Low Fees and Minimums: Many investment apps have low fees and minimum investment requirements, making investing accessible to individuals with varying financial capacities.

Review of Literature:

1. **Adrian, D., & Tarigan, R. E. (2014)** In the research titled “The Effect of Revenue and Market Segmentation Level on Venture Capital Investment in Mobile Application Business," The research acknowledges H1, indicating a high correlation between revenue level and venture capital investment. Based on demographics, investors aged 25–29 and 50–54 prioritize the majority of market segmentation variables, whereas those aged 25 and above do not. Female investors are cautious in making investment decisions due to fear and the need to evaluate all issues. Education level impacts investment decisions. High-educated investors may lack confidence in prioritizing factors, while those with bachelor degrees consider all relevant factors. The research results align with the second hypothesis (H2), indicating acceptance.
2. **Bulim, J., et al. (2023),** In the research titled “Stock Investment Industry Augmented by Mobile Technology," Given the present investment and use of mobile technologies, Robinhood appears to be the most competitive method due to its engaging and addictive nature. Robinhood made a strong impression on millennials by making their investment app feel more like a game than a traditional investment tool. The drawback is the influx of millions of new investors, causing market volatility. Many novice investors lack the necessary expertise and education to trade in the stock market. While market volatility is a concern, young investors and those without a significant bank account are increasingly interested in investing. Robinhood provides 0% commission and fractional share ownership, challenging traditional investment practices. Robinhood provides limited teaching resources for novice investors, while Charles Schwab and Fidelity Investments utilize mobile apps to improve their operations. Fidelity Spire stands out as a strong competitor to Robinhood, offering a sophisticated and intriguing business model improvement.
3. **Mohd Sukri, et al. (2023),** In the research titled “Best Money App (Bank Investment App)," We found that our greatest mobile app excels in functionality, user experience, and overall impact after extensive examination and analysis. The software effectively meets the requirements and desires of its target audience, offering excellent convenience and functionality. Our app excels in its straightforward interface, enabling easy navigation and usage. Design components and aesthetics enhance the user experience with their visual attractiveness. Additionally, the app's functionality and responsiveness are consistently great, ensuring smooth and lag-free usage.
4. **Hadi Putra (2022),** In the research titled “Factors Affecting User Retention of Mobile Mutual Fund Investment Applications: Evidence from Indonesia," As the number of applications that allow users to invest in mutual funds continues to increase, developers are working to provide increased value to customers in comparison to their rivals. It can be challenging for developers of apps that facilitate investments in mutual funds to ascertain the factors that encourage

clients to make use of the device. According to the ECM theory, there are three factors that influence the retention of users or their intention to use mutual fund investment apps. These factors are perceived enjoyment, perceived utility, and perceived contentment that users experience. The component that has the biggest influence on users' inclination to use mutual fund investment applications is contentment, which is one of the three factors.

5. **Adrian, D., & Tarigan, R. E. (2014),** In the research titled "The Effect of Revenue and Market Segmentation Level on Venture Capital Investment in Mobile Application Business," The research acknowledges H1, indicating a high correlation between revenue level and venture capital investment. Based on demographics, investors aged 25–29 and 50–54 prioritize the majority of market segmentation variables, whereas those aged 25 and above do not. Female investors are cautious in making investment decisions due to fear and the need to evaluate all issues. Education level impacts investment decisions. High-educated investors may lack confidence in prioritizing factors, while those with bachelor degrees consider all relevant factors. The research results align with the second hypothesis (H2), indicating acceptance.

6. **Malhotra, S. (2020),** In the research titled "Study of features of mobile trading apps: A silver lining of the pandemic, Malhotra, S. (2020), Study of Features of Mobile Trading Apps: A Silver Lining of the Pandemic." The five qualities that were chosen for the literature review were subjected to a factor analysis, which ranked the severity of their impact on the adoption of mobile trading apps and other similar aspects. According to the findings of the survey, mobile trading applications place the utmost importance on the convenience of use as the most important feature. With the help of this feature, customers are able to develop a favorable attitude toward these applications. One of the most important aspects of utilizing a mobile trading app is the ability to do investment research and obtain information, which enables investors to capitalize on opportunities in the stock market.

7. **Singhal, R., & Gupta, A. (2021),** In the research titled "Fashion of Trade at Stock Exchanges by Way of Digital Payments and Mobile Application: A Study of the NSE and BSE Stock Markets," As a result of Chitra Ramakrishna's resignation as President of the NSE in 2016, the market suffered substantial damage. Moreover, in May of 2019, the NSE disclosed a method that makes use of the tick-by-tick worker in order to give information to its consumers in a manner that is comparable to the grouping. On a regular basis, the NSE delivers information on the Ordinary Convention Premise. This enables the OPG to have access to NSE reinforcement workers, which helps to prevent specialized issues and enables the execution of requests more quickly. Having said that, this does have a detrimental effect on the search.

8. **Tessa Correya et al. (2023),** In the research titled "A Study On Perception Of Youngsters Towards Investment Opportunities With Special Reference To Online Trading," In 2016, NSE President Chitra Ramakrishna resigned, causing significant market damage. Additionally, in May 2019, NSE revealed a method using the tick-by-tick worker to provide information in a similar grouping to its users. Regularly, NSE provides information on Ordinary Convention Premise, allowing OPG access to NSE reinforcement workers, preventing specialized issues, and enabling quick request execution. However, this has a negative impact on the search. The NSE was easier to sustain and built trust among investors compared to the Bombay Stock Exchange, making it more reliable. The trend of NSE is significantly higher than that of BSE. Mobile stock trading apps are heavily influencing individual investors to trade in the stock market through digital means. The sector of digital payment services, or mobile apps, has emerged to simplify and streamline the payment process. During the COVID-19 pandemic, digital payment apps and mobile stock trading apps supported the economy and made transactions easier.

Data Analysis:

Objective-1: To analyze the various mobile application available for personal investment accounts.

Personal investment accounts represent a pivotal financial tool for individuals seeking to build wealth and secure their future. These accounts, often managed independently or through financial advisors, allow individuals to invest in a diverse range of assets, such as stocks, bonds, mutual funds, and exchange-traded funds (ETFs). By contributing regularly to these accounts, individuals can harness the power of compounding returns over time, potentially leading to substantial growth of their investments.

Moreover, personal investment accounts offer flexibility and control over investment decisions, enabling individuals to align their portfolios with their risk tolerance, financial goals, and values. The significance of personal investment accounts lies in their capacity to foster financial independence, retirement readiness, and long-term wealth accumulation, empowering individuals to achieve their desired lifestyle and secure their financial well-being.

Years	No. of Mobile (Fintech) applications
2007	5
2009	6
2010	7
2013	8
2015	9
2016	14
2017	16

2018	17
2019	18
2020	20

The data illustrates a steady increase in the number of mobile applications over the years, starting from 5 in 2007 and reaching 20 by 2020. The progression demonstrates a notable upward trend, with slight fluctuations in growth rates over the years. The number of mobile applications rose consistently from 2007 to 2013, experiencing a more rapid expansion from 2015 onwards, particularly evident in the leap from 2016 to 2017 when the count jumped from 14 to 16. The growth trajectory underscores the burgeoning influence and widespread adoption of mobile technology, reflecting both the increasing demand for mobile applications and the advancements in mobile development platforms and technologies during this period.

Null Hypothesis H_{01}: There is no relation between Continuous introduction of various new mobile applications and benefits to the investors in operating their personal investment accounts.

Alternate Hypothesis H_{11}: There is a relation between Continuous introduction of various new mobile applications and benefits to the investors in operating their personal investment accounts.

To study the above null hypothesis, correlation is obtained and results are as follows:

Correlations			
		Years	No. of Mobile applications
Years	Pearson Correlation	1	.931**
	p-value		.000
	N	11	11
No. of Mobile applications	Pearson Correlation	.931**	1
	p-value	.000	
	N	11	11
**. Correlation is significant at the 0.01 level (2-tailed).			

Interpretation: Above results indicate that p-value for all score is 0.000. It is less than standard value of 0.05. Therefore, the correlation is rejected. Hence null hypothesis is rejected and alternate hypothesis is accepted.

Conclusion: There is a relation between Continuous introduction of various new mobile applications and benefits to the investors in operating their personal investment accounts.

Findings: The Pearson correlation coefficient for the relationship between the years and the number of mobile applications is 0.931**, with a p-value of .000, based on a sample size of 11. This indicates a strong positive correlation between the two variables, suggesting that as the years progress, the number of mobile applications tends to increase significantly. The correlation coefficient being close to 1 indicates a nearly perfect positive linear relationship, highlighting the robustness of the association between time and mobile application development.

Objective-2: To analyze the usage of mobile applications and understand its increasing trend in managing personal investment accounts.

Years	**Active Client**	**Total Active Clients(NSE)**	**Percentage of active clients**
FY 15-16	2,47,717	51,69,963	4.79
FY 16-17	4,21,801	59,51,301	7.09
FY 17-18	9,93,892	82,89,801	11.99
FY 18-19	15,42,980	87,82,207	17.57
FY 19-20	30,99,050	1,07,95,660	28.71
FY 20-21	92,09,919	1,83,56,146	50.17
FY 21-22	2,14,36,363	3,60,35,020	59.49
FY 22-23	2,05,48,529	3,26,60,214	62.92
FY 23-24	2,26,28,950	3,49,42,237	64.76

Source: https://www.investorgain.com/active-customers

The trend in the number of active clients in the National Stock Exchange (NSE) over the fiscal years from 2015-2016 to 2023-2024 depicts a substantial and consistent upward trajectory. Starting with 2,47,717 active clients in FY 15-16, the figures have shown remarkable growth, culminating in 2,26,28,950 active clients in FY 23-24. This surge signifies a growing participation and interest in the stock market among investors over the years. The percentage of active clients relative to the total active clients on the NSE has also shown a notable increase, with the percentage rising from 4.79% in FY 15-16 to 64.76% in FY 23-24, indicating a significant expansion in market participation and investor engagement over the period.

Null Hypothesis H_{02}: There is no significant increase in the active member of use of mobile applications for managing personal investment accounts.

Alternate Hypothesis H_{12}: There is a significant increase in the active member of use of mobile applications for managing personal investment accounts.

Relation between Total Active Clients(NSE) and Active clients on Mobile applications for personal investment account.

Correlations			
		Total Active Clients(NSE)	Active Client
Total Active Clients(NSE)	Pearson Correlation	1	.997**
	p-value		.000
	N	9	9
Active Client	Pearson Correlation	.997**	1
	p-value	.000	
	N	9	9
**. Correlation is significant at the 0.01 level (2-tailed).			

Interpretation: Above results indicate that p-value for all score is 0.000. It is less than standard value of 0.05. Therefore, the correlation is rejected. Hence null hypothesis is rejected and alternate hypothesis is accepted.

Conclusion: There is a significant increase in the active member of use of mobile applications for managing personal investment accounts.

Findings: The Pearson correlation coefficient between the total active clients on the National Stock Exchange (NSE) and the number of active clients is 0.997**, with a p-value of .000, based on a sample size of 9. This indicates an extremely strong positive correlation between the two variables, suggesting that as the total number of active clients on the NSE increases, the number of active clients also increases significantly. The correlation coefficient being close to 1 indicates a nearly perfect positive linear relationship, highlighting the robustness of the association between these two variables.

Findings and Conclusions:

The analysis of two objectives reveals compelling findings regarding the relationship between the introduction of mobile applications and their usage in managing personal investment accounts. The first objective demonstrates a strong correlation between the continuous introduction of mobile applications and their benefits to investors, highlighting their pivotal role in financial management and wealth accumulation. Meanwhile, the second objective underscores a significant increase in the active usage of mobile applications for managing personal investment accounts, suggesting a growing reliance on mobile technology among investors. Together, these findings emphasize the increasing importance and effectiveness of mobile applications in empowering individuals to navigate the complexities of personal finance and achieve their long-term financial goals.

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