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The Influence of Digital Trading Applications on Financial Markets

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Abstract

The word "fintech" refers to a new technology that aims to make financial services better and more automated. Investment management, retail banking, artificial intelligence, block chains, mobile payments, stock trading, and other industries are increasingly included in the fintech sector. With today's high-tech electronic trading on the stock exchange, ordinary investors can purchase or sell shares in a matter of seconds, giving investors the opportunity to efficiently perform their research before investing in equities.

This paper, thus, talks about the emergence of fintech, which has led to the development of various mobile trading applications like Zerodha, Grow, Upstox, Angel Broking, etc. These apps have become popular among young investors in recent years because of their low-cost broking services. In this study, both primary and secondary data have been used. Primary survey-based research has been used to know the experiences of people belonging to different age groups on trading apps, and secondary data for statistical figures and other factual points has been used from verified stock exchange data and websites of trading apps. This paper will also shed light on the various seamless services offered by such broking applications, which have drastically changed the way the market functions. Investors could easily browse through the available investments, order what they wanted, and manage their portfolio with a single tap from their phone, making adjustments right away. The paper will go on to explain how stock trading applications have affected the financial markets by encouraging an increasing number of people to participate in the process of constructing economies by trading in financial assets. The report can assist policymakers in determining the advantages and hazards of using these new technologies, as well as the repercussions of their use. It offers legislative recommendations that are meant to encourage the use of AI in finance while making sure that its application is consistent with fostering market integrity, financial stability, and competition while safeguarding financial consumers. To support and encourage the use of responsible AI, emerging dangers from the deployment of AI techniques need to be detected and mitigated.

Keywords: Stock trading, fintech, Artificial Intelligence , Mobile trading , Challenges, financial market, Digital innovation

Introduction

Financial markets, the bridge between households and businesses, play a vital role in creating liquidity for businesses and generating passive income for investors. Financial markets refer to the arenas in which traders engage in the buying and selling of various financial assets. The financial instruments

encompassed within this category consist of stocks, bonds, derivatives, foreign exchange, and commodities. The financial markets serve as a platform for firms to acquire capital in order to facilitate their expansion. This is the context in which corporations mitigate risks and investors generate profits.

Financial markets provide a structured and regulated platform that enables businesses to secure substantial quantities of capital in a convenient manner. The utilisation of stock and bond markets is employed for this purpose. Moreover, markets facilitate the ability of these organizations to manage and mitigate risk. Commodities, foreign exchange futures contracts, and other derivatives are employed in this manner. Markets provide a visible and accessible system for determining the prices of goods and services through their public nature. The comprehensive inclusion of all presently available information pertaining to all traded entities contributes to a reduction in the expenses associated with acquiring novel knowledge.

These markets encourage investor confidence, which soothes the economy and promotes its expansion. A few decades ago, trading and investing in the financial markets was a difficult task. Traders would shout at the top of their lungs to bid on a company's stock, and only a select few people could gain access to the stock exchange floor. The way that investment is done now has changed as a result of technology. From the initial stages of stock formation to its trading, technology has fundamentally changed how the financial markets operate. Smartphones are a terrific tool for trading financial assets in the twenty-first century.

Fintech related to enterprises that leverage technology to enhance or streamline financial services and operations. The phrase "fintech" is a combination of the words "financial" and "technology." The aforementioned expression pertains to a rapidly growing industry that offers advantages to both consumers and organisations across multiple dimensions. The field of financial technology (fintech) encompasses a wide array of applications, including but not limited tocrypto currencies, investing applications, mobile banking, and insurance services.

Review of Literature

Fintech Issues and Challenges in India **P. Krishna Priya, K. Anusha** : India is an emerging market for financial technology (fintech), characterised by a substantial population of over 1.3 billion individuals. India's unbanked and underbanked population constitutes a significant proportion, rendering it a dynamic worldwide arena for financial innovations. The field of financial technology, also known as fintech, is widely recognised as a transformative force and a disruptive innovation with the potential to significantly impact the established norms and practises of the traditional financial sector. The fintech sector in India has had significant growth over the past five years and is anticipated to continue expanding in the foreseeable future. The essay initially examines the fundamental categories of financial technologies and their respective functionalities, while also addressing the potential opportunities and concerns they present with in the Indian corporate landscape.

Fintech in India: Opportunities and Challenges **Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, ,India**: Fintech refers to the application of technology in the financial sector, offering alternative options for both banking services and non-banking financial services. The concept of financial technology, sometimes referred to as fintech, is rapidly gaining prominence in the financial industry. The primary objective of this paper is to examine the various opportunities and problems that exist within the fintech business. This paper elucidates the evolutionary trajectory of the fintech industry and its current state within the Indian finance sector. The fintech industry offers digital

transaction solutions that enhance user security. Fintech services offer advantages such as cost reduction in operations and user-friendliness. The fintech services sector in India is seeing rapid growth, positioning it as one of the fastest-growing in the global market. The introduction of fintech services is anticipated to significantly impact the habits and behaviour of the finance sector in India.

Financial Technology: A Review of Trends, Approaches, and Management, **Emilio Abad-Segura 1, Mariana- Daniela González-Zamar** 2, Technological innovation and digitization have posed a challenge to the financial sector globally. Fintech is the term used to designate the application of new technologies to financial services. The aim of the study is to analyse this research subject worldwide during the period 1975–2012. To this end, bibliometric techniques were applied to 2012 articles, obtaining findings on the productivity of scientific research, the main thematic axes, and their evolution. Scientific activity increased, mainly in the past decade, with 45% of publications. The main thematic areas were business, management and accounting, engineering, social sciences, and computer Science. Seven research lines were identified, aimed at analysing the aspects of financial, economic, technology transfer, investment, innovation, partnerships and institutions, and commercial. Future research lines should develop analyses on banking, financial services trade, territorial development, legal management, research methodologies, and the sustainability of financial technologies. It was verified that there is a growing and dynamic interest in scientific activity on financial technologies at an international level. The findings obtained are a complement to the knowledge of financial technologies, allow the relationship between science and technology to be established, and inform the decision-making process.

Research Methodology

This study incorporates both primary and secondary data sources. Secondary data is utilised to undertake an extensive review of existing literature, while primary data is collected through a closed-ended structured questionnaire administered to a sample of 120 respondents. In Primary data following sampling design is used:

Population: Sample included individuals from New Delhi city who comes under the age group of 18 – 30 years.

Sampling Element: Individual respondent were the sampling element.

Sampling Technique: Non – Probability purposive sampling technique was used to select the sample.

Sample Size: Sample Size was 120 respondents

Objectives

- To study the services offered and the technology being used by trading applications that have changed the face of investing.
- To understand why people are motivated to use such apps for trading and investing in financial market.
- To know how apps are inspiring people to manage their finances and helping them to make informed decisions.
- To provide a conceptual overview of fintech and the adoption of fintech among digitally active consumers.
- To identify the barriers and challengers to adopting financial technologies.

Fintech in India

Fintech companies are changing the financial services scene in India. Unexpectedly, unified payment interface (UPI) platforms, trading apps, artificial intelligence, and mobile wallets have helped India achieve a very high level of fintech acceptance. Aside from all the big tech, India is also ideally positioned for continuous development and worldwide leadership in the FinTech sector, with first-generation entrepreneurs driving very high success rates in the field. India is presumably the only region where numerous highly scaled firms from all categories coexist in the sector while also expanding quickly and adding value. As evidence of the sector's potential expansion and depth, this is probably unique to India.

Big banks and tech firms are also eager to collaborate with FinTech startups or introduce their own digital financial services products. As the nation's government and authorities attempt to create enabling laws or construct public digital infrastructure that will serve as growth pipelines for the fintech sector. We hope to highlight a few of these success stories in this research and share our ideas for how the industry may soar to new heights.

Mobile Trading apps and its Impact

The advent of technology has facilitated the emergence of online brokerage firms and stock trading software such as Zerodha, Groww, Upstox, Angel One, and others. Mobile trading is the practise of engaging in stock market transactions by means of a mobile phone. Prominent financial institutions currently provide mobile applications to its clientele, enabling them to engage in stock trading, mutual fund investments, participation in initial public offerings, and the ability to monitor their investment portfolios. Although the Securities and Exchange Board of India (SEBI) granted approval for mobile phone trading in 2010, there was limited uptake during the early years as investors predominantly opted to engage in trading activities through their dealers or relationship managers. However, there has been a notable increase in the proportion of mobile trading in recent years, while it remains a very little component of the total trading volume. According to the Bombay Stock Exchange (BSE), mobile trading constituted 5.1% of the overall trading volume. Nowadays, brokerages allocate significant resources towards technological advancements. As a result, trading apps are equipped with robust encryption and various security features, enhancing the overall trading experience. In contemporary times, a significant number of brokerage firms have incorporated the role of a chief technology officer (CTO), a position that was previously non-existent until recent years. In addition to routine updates, the applications are continually enhanced with security measures, among other functionalities. The user's text does not contain any information to rewrite.The robust level of security is additionally substantiated by the observation that a significant proportion, over 50%, of active clients of prominent brokerages engage in trading activities using mobile applications rather than web platforms.

Smooth and Inform Trade

Technology has given birth to online broking firms and stock trading applications like Zerodha, Groww, Upstox, Angel One, etc. Mobile trading is the practice of engaging in stock market transactions through the utilization of a mobile phone. Prominent financial institutions currently provide their clientele with mobile applications, enabling them to engage in share trading, mutual fund investment, participation in initial public offerings, and the ability to monitor their investment portfolios. Although the Securities and Exchange Board of India (SEBI) granted approval for mobile phone trading in 2010, there was limited adoption during the early years as investors showed a preference for trading through dealers or

relationship managers However, there has been a notable increase in the proportion of mobile trading in recent years, while its contribution to the total trade volume remains relatively limited. According to the Bombay Stock Exchange (BSE), the proportion of mobile trading in relation to the overall trading volume amounted to 5.1%.The user's text lacks sufficient information to be rewritten in an academic manner. Brokerages invest a lot in technology nowadays, and consequently, most trading apps offer strong encryption and other security measures so as to make the trading experience rather enjoyable. In contemporary times, a significant number of brokerages have incorporated the role of a chief technology officer, a position that was previously non-existent until recent years. In addition to routine updates, the applications are periodically enhanced with security measures, among other functionalities.The observation that a significant proportion of active clients of leading brokerages increasingly engage in trading activities using mobile applications, surpassing web-based platforms, provides additional evidence for the robustness of security measures in place.

Increased Participation of People

- Why are people being influenced to invest and trade using apps
- Speedy Transactions
- Easy Decision Making
- Remote Trade
- No middlemen
- Minimal cost
- User-friendly interface
- Multi-step verification for safety and security concerns
- SSL certification and 128-bit most secured encryption

Role of Technology

Technological advancements are a must for any form of innovation to occur. Artificial intelligence, blockchain, and machine learning are emerging technologies that significantly influence the field of financial technology (fintech) and hold considerable potential to enhance advantages for financial organisations and customers alike. With the increasing digitization of banks and financial institutions, it is evident that fintech and its associated technologies will undoubtedly exert a substantial influence on the future landscape of the finance industry.

Artificial Intelligence

Artificial intelligence (AI) systems refer to machine-based systems that possess varying levels of autonomy and are capable of generating predictions, suggestions, or judgements within a predefined set of human-defined objectives. Artificial intelligence (AI) methodologies are becoming dependent on extensive volumes of 'big data,' as well as alternative data sources, and data analytics. The aforementioned data are inputted into machine learning (ML) models, whereupon they are utilised to facilitate automated learning from both experience and data. This process aims to improve the ability to forecast outcomes and enhance overall performance, all without the need for human programming. AI methods are utilised in both asset management and the buy-side activity of the market for the purposes of stock selection and asset allocation. The utilisation of big data in AI-driven applications has the potential to create a substantial nonfinancial risk due to challenges and hazards related to data

quality, data privacy and confidentiality, cyber security, and fairness considerations.

Block chain

A blockchain refers to a distributed and unalterable database that facilitates the efficient monitoring of assets and the documentation of transactions within a corporate network. In the context of a blockchain network, a wide range of valuable assets can be documented and exchanged, thereby mitigating risk and enhancing operational effectiveness for all involved stakeholders. The acquisition of knowledge is vital in the realm of business. Optimal outcomes are achieved when the information is promptly delivered and has a high degree of precision. The blockchain technology is considered highly effective in facilitating the dissemination of information due to its ability to provide real-time, shareable, and fully transparent data. This data is stored on an unchangeable ledger and can only be accessed by authorised members of a restricted network. In addition to various other functionalities, a blockchain network has the capability to monitor and record the progress of orders, payments, accounts, and manufacturing activities. Furthermore, given that all individuals possess equal access to an identical representation of reality, one is able to observe every facet of a transaction from its initiation to its conclusion. This heightened level of transparency fosters enhanced assurance, while simultaneously creating novel prospects and optimising efficacy.

How block chain works:

A blockchain is a decentralised and immutable ledger that enables the efficient tracking of assets and recording of transactions inside a corporate network. Within the framework of a blockchain network, a diverse array of valuable assets can be recorded and transacted, consequently reducing risk and augmenting operational efficiency for all relevant parties. The acquisition of knowledge holds significant importance within the domain of business. The attainment of optimal results is facilitated by the fast delivery and high level of precision of information. The blockchain technology is well recognised for its efficacy in easing the distribution of information owing to its capacity to offer real-time, shareable, and fully transparent data. The information is securely recorded on an immutable ledger and may solely be viewed by approved individuals inside a limited network. In addition to a range of other features, a blockchain network possesses the capacity to observe and document the advancement of orders, payments, accounts, and manufacturing activities. Moreover, since that every individual has equitable access to an indistinguishable depiction of reality, one can effectively scrutinize every aspect of a transaction from its inception to its culmination. The increased level of transparency facilitates greater confidence, while also generating new opportunities and improving efficiency.

Robo-Advisory

A type of financial advisor known as a "robo-adviser" offers investment management and financial guidance via the internet with little to no human involvement. Based on mathematical principles or algorithms, they offer digital financial advice. Data scientists, investment managers, financial counsellors, and software developers all contributed to the creation of these algorithms. These algorithms are carried out by software; thus, a client doesn't need to receive financial guidance from a human advisor. In order to automatically allocate, manage, and maximise client assets for either short-term or long-term investment, the software makes use of its algorithms. Based on the level of personalisation, discretion, engagement, and human interaction, robo-advisors are divided Upstox has

initiated its promotional campaign for the Indian Premier League titled 'Start Karke Dekho', with the objective of encouraging enhanced financial engagement within the nation by emphasizing the significance of initiating the initial action. The statement underscores the ease of investing with Upstox, starting from the initial stage.Groww has just introduced a unique financial education effort called "Ab India Karega Invest" in order to address the knowledge gap among investors. Groww seeks to capitalize on the increasing trend of investment activities among the millennial demographic, facilitated by the user-friendly nature of investment applications such as Groww.

Marketing & Advertising Strategies

Upstox has initiated its promotional campaign for the Indian Premier League titled 'Start Karke Dekho', with the objective of encouraging enhanced financial engagement within the nation by emphasizing the significance of initiating the initial action. The statement underscores the ease of investing with Upstox, starting from the initial stage.

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Outcomes of Strategies and Services

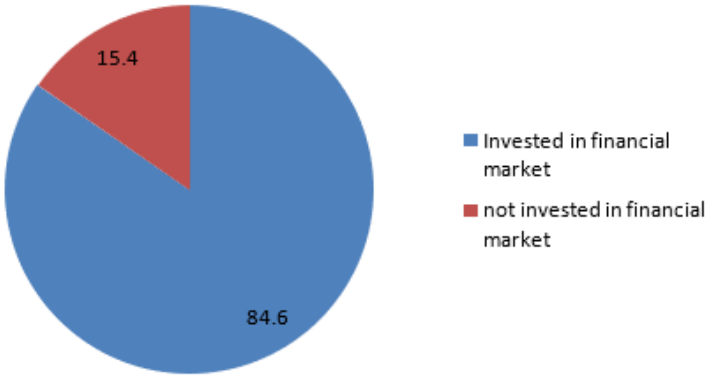
The customer onboarding process at UPSTOX experienced a threefold increase in the previous fiscal year, resulting in a total customer base over 4 million. Notably, over 80% of these customers fall between the age range of 18 to 36 years. Furthermore, Angel Broking achieved a gross client acquisition rate that was nearly double that of the previous fiscal year, namely in the year 2022.The empirical evidence from stock exchange statistics indicates that the spike in new investors is primarily attributable to the younger demographic. Among the 70 million users at the Border Security Force (BSF), 38% fall within the age range of 30 to 40 years, while 24% belong to the age group of 20 to 30 years.

Data Analysis and Interpretation

1. **The following tabular form showing the analysis of collected data from respondents.**

Category	Percentage of sample collected	Number of Sample
Invested in Financial Market	84.60	102

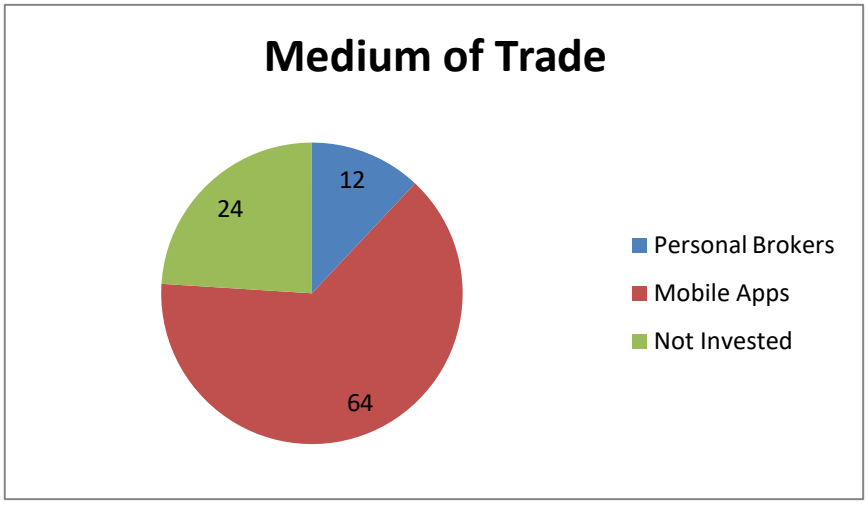
Not Invested in Financial Market	15.40	18



This pie chart interprets that approximately 85% of people are invested in Financial Markets and remaining 15% are not interested in doing Trade.

2. The following tabular form showing the analysis of collected data from respondents.

Categories	Percentage of sample size
Using Mobile applications to do trading in Financial Market	64%
Using Traditional Method (Personal Broker) to do trading in Financial Market	12%
Not interested in doing trade	24%



This Pie chart interprets that 64% people were using Mobile application to do trade in the financial Market whereas 24% were not at all interested in doing so and the least 12% people using Traditional methods (Personal Broker) to do Trading in Stock Market.

In the above Bar Diagram it is stated that approximately 60% of people doing trading through mobile application because the cost is very low where as 50% people feels that it is very quick to take decision and around 40% feels that trading is very smooth and fast.

CONCLUSION

Approximately 50% of the 1500 active Fin Tech startup companies in India were established within the last two years. Fintech firms necessitate a high level of proficiency in both technology and financial domains. The payments industry is currently home to the majority of lucrative startups, and there is an expectation that this pattern will expand to encompass further areas within the financial industry. It is imperative for governmental bodies and regulatory authorities to undertake supplementary measures in order to provide bolstering assistance to the financial technology (fintech) sector. While mobile trading means placing orders is quick and simple, it also means there is no one to advise traders about investing in potentially risky markets. A lot of mobile applications, trading on a smartphone can feel 'like playing' and traders can fail to adequately evaluate their level of risk exposure, simply because they clueless about how trading with leverage derivatives works.

To cater to these short coming, applications can:

- Adopt some algorithms and develop some software to judge the experience and knowledge level of people getting them registered.
- One-to-one advisory service mechanism can be established for new investors, enabling them to evaluate risk exposure while dealing in
- A Community platform can be established wherein security holders and traders can connect with each other to discuss risk aversion

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