



Digital Transformation of Trading Strategies through FIN Technology

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ABSTRACT

The overall goal of this study is to determine how fintech technologies are used to improve the efficiency with which traders execute trades, how investment decisions are made more effectively through the use of fintech, how risk management in trading is enhanced, and how investors are able to access financial markets via fintech. Additionally, we will evaluate the operational advantages and strategic challenges associated with the transition to digital trading environments. The global financial services industry has transformed tremendously due in large part to the rise of fintech (financial technology), and this includes how trading strategies have evolved because of it. With the use of advanced digital technologies, trading has moved from the traditional methods to more automated, data-driven, and tech-mediated methods. This paper examines the impact of digital transformation on trading strategies, specifically examining the types of fintech innovations such as artificial intelligence (AI), machine learning (ML), big data analytics, blockchain technology, cloud computing, robo-advisors, and algorithmic trading platforms that have been adopted by traders as they have transitioned into digital trading environments. Data for this study has been gathered from both primary and secondary sources. Primary data includes the use of structured questionnaires and survey interviews with traders, retail investors, brokerage firms' employees, and users of online brokerage platforms. Secondary data is from financial journals, stock market exchange reports, fintech industry publications, and research literature, and the appropriate regulatory authority websites. Descriptive statistics were used to analyze the data collected from both primary and secondary sources.

KEYWORDS: FinTech, Digital Transformation, Trading Strategies, Algorithmic Trading, Artificial Intelligence, Machine Learning, Blockchain, Big Data Analytics, Online Trading Platforms.

1. INTRODUCTION

The introduction of digital technology into the financial services sector has drastically changed how financial services operate. An example of this would be trading strategies. When financial services companies started integrating technology (FinTech) into their trading processes, it completely changed how trading occurs within financial markets. The use of FinTech has enabled the financial markets to operate faster, better, and more efficiently than ever before. FinTech consists of the utilization of innovative technologies (e.g., AI, ML, blockchain, big data analytics, cloud computing and algorithmic trading systems) to support and improve financial transactions.

FinTech is comprised of various types of innovative technologies such as Artificial Intelligence (AI), Machine Learning (ML), Blockchain, Big Data, Cloud Computing, and Algorithmic Trading Systems that assist in enhancing all aspects of finance.



Traditionally, trading was performed in a manual process using brokers through physical trading floors and was primarily driven by human judgement based on limited information available in the marketplace. Digital platforms along with FinTech solutions have transformed the trading environment into an automated and electronic trading environment.

2. LITERATURE SURVEY

The use of technology to increase the speed and accuracy of trading strategies has become a highly researched area within finance, specifically regarding how technology is used to transform traditional trading. Researchers commonly reference AI and algorithmic trading as ways to enable traders to make quicker, data-based decisions while also improving the efficiency of the market through technology. Additionally, researchers cite several uses for machine learning when predicting prices, managing risk, and optimizing portfolios. The overall conclusion of the literature is that the wave of innovation in the financial technology sector has radically changed how we trade today by adding more automation and accuracy to the trading process and, therefore, creating a more operationally efficient trading environment but have also presented a number of new challenges related to regulation and risk management.

2.1. RESEARCH GAPE

Despite much research being conducted on how digital transformation through FinTech is transforming trading systems, most studies concentrate primarily on certain technologies - e.g., Artificial Intelligence and/or Blockchain - rather than their combined use for trading purposes. Moreover, limited evidence has been published regarding the global use of integrated trading systems because little data has been collected from developing markets such as India; furthermore, little data from these same countries has been published regarding the adoption rate or challenges of various financial innovations compared to those of developed markets. Similarly, regarding these new automated forms of trading, regulatory issues; cybersecurity threats; and/or ethical questions, related thereto have not been studied well.

3. METHODOLOGY

The purpose of this research methodology is to provide a description of how using FinTech has changed the way traders trade. The research methodology used a descriptive research design to gather both primary and secondary data for the analysis. The primary data collected involved structured questionnaires and interviews with traders, investors and finance professionals about their experiences with and perceptions of using FinTech tools in their trading strategies. The secondary data comprised research articles, academic journals, financial reports, books and validated websites focused on digital trading and FinTech. A non-probability convenience sampling method was used to choose the sample respondents.

4. RESULTS AND DATA ANALYSIS:

The collected data was analyzed using both the percentage analysis and the tabulation methods to determine how FinTech has impacted trading strategies. According to the data from the findings, it is evident that most of those who participated in the study are aware of digital trading platforms and use FinTech tools in their investment decisions. Additionally, it seems that the majority of respondents prefer to use AI-based trading systems and

algorithmic trading because of their speed, accuracy, and ability to process and analyze real-time market data.

From the data analyzed, it appears that Machine Learning and Big Data Analytical techniques, which fall under the auspices of FinTech, positively impact traders' abilities to predict market trends and create effective portfolios and control risk. Furthermore, a large majority of respondents indicated that by utilizing digital platforms they experienced increased trading efficiency, reduced commission costs, and improved decision-making skills.

5. DISCUSSION AND IMPLEMENTATION

This research study is focused on investigating how the introduction of electronic/digital financial technologies has transformed retail trading methods. It discusses the role of new technology platforms such as AI, Algorithmic Trading, Machine Learning (ML) and Big Data Analytics in improving the speed and accuracy of performing trades. Trades are now performed using a computer system that analyses live market data in order to predict future prices based on current market activity. In turn, this means that stock market traders can look at present conditions and previous records (trends), to determine whether or not they (traders) should expect any of the stocks they trade on to go up or down. By providing traders with these types of predictions hourly, they have been able to increase their profits while reducing their risk of making an error.

6. FUTURE WORK

Researchers looking at how to combine multiple Financial Technology advancements to create better automated trading systems for investors still have a lot of investigation to conduct.

7. CONCLUSION

Digital transformation through FinTech has fundamentally reshaped modern trading strategies by introducing automation, speed, and data-driven decision-making. Technologies such as Artificial Intelligence, Machine Learning, Algorithmic Trading, Big Data Analytics, and Blockchain have enhanced trading efficiency, accuracy, transparency, and risk management. Despite its benefits, challenges such as cybersecurity risks, regulatory issues, technical complexity, and high implementation costs remain. Addressing these concerns is essential for sustainable growth. Overall, FinTech continues to revolutionize trading practices and will play a crucial role in shaping the future of global financial markets.

8. REFERENCES

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