

MODERNIZATION OF THE UZBEKISTAN STOCK MARKET BASED ON FINTECH AND DIGITAL TECHNOLOGIES

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Abstract

This article analyzes the changes resulting from the implementation of financial technologies (FinTech) and digital platforms in the securities market of the Republic of Uzbekistan. The introduction of FinTech technologies, particularly automation and digital identification systems, has improved operational efficiency and contributed to ensuring market transparency and security. Additionally, regulatory updates have further enhanced the positive impact of FinTech solutions on the market. The research findings demonstrate the success of digital transformation in the Uzbek securities market and provide a scientific basis for the future development of the market based on innovative technologies.

Keywords: FinTech, digital platforms, securities market, Uzbekistan, automation, digital identification, regulatory updates, operational efficiency, transparency, security.

Introduction

In the last decade, the global financial system has been undergoing a profound digitization process. FinTech solutions and digital platforms have become a crucial factor in simplifying investment operations, automating trading processes, and responding quickly to the needs of market participants. This process is widely applied not only in developed economies but also at the regional level, playing a significant role in ensuring the transparency and security of investment activities through innovative technologies.

Significant changes are also observed in the securities market of Uzbekistan through the implementation of FinTech solutions. The analytical reports of the “Tashkent” Republican Stock Exchange for 2023 note that the application of FinTech technologies led to a substantial increase in the number and volume of exchange trading transactions, enhanced participation of retail investors, and automation of trading processes through mobile applications. Furthermore, press releases for the end of 2024 highlighted that the digital transformation process was further strengthened, contributing to the reliability and transparency of the investment environment through digitization.¹

¹ The data from the official website of the “Tashkent” Republican Stock Exchange, uzse.uz, has been used.



In regional practice, regulatory updates have also significantly stimulated the use of FinTech and digital identification systems. The decision of the Ministry of Economy and Finance of the Republic of Uzbekistan, dated June 27, 2023, on amendments to the regulation regarding the requirements for banks to operate as investment intermediaries, manage investment assets, and provide investment consultancy services in the securities market, and the decision of the Cabinet of Ministers of the Republic of Uzbekistan, dated April 26, 2024, on the approval of the regulation for remote digital identification of clients in the securities market, along with other documents adopted by the Cabinet of Ministers and relevant bodies, aim to strengthen the integration of remote digital identification systems. These regulatory changes have created the opportunity to implement a secure, efficient, and transparent digital identification system for banks and investment intermediaries, positively impacting the stable development of the market.

Global practices and international research show that FinTech solutions play a crucial role in simplifying investment processes, enhancing transparency, and strengthening customer trust. Through the implementation of internal control regulations based on international standards, data encryption, and security measures, regional market participants can gain competitive advantages in the digital transformation process.

This article analyzes the transformation process occurring through the implementation of FinTech solutions and digital platforms in the securities market of Uzbekistan, its efficiency, security measures, and the interplay with regulatory factors. The article also aims to identify future prospects based on regional and international experiences, providing a scientific explanation of the changes the digital transformation process brings to the investment environment.

Methodology

The methodology of this research is aimed at conducting a comprehensive analysis of the transformation process of FinTech solutions and digital platforms in the securities market of Uzbekistan. The main data for the research was collected from official reports, press releases, and regulatory documents from 2023 and 2024. Descriptive statistics, trend analysis, and comparative methods were used to identify the impact of exchange trading transactions, trading volume, investor operations through mobile applications, and regulatory changes on the market, and statistical foundations for the results were formed. Additionally, an analysis was conducted based on international scientific literature, and regional indicators were compared with global trends.

Results

Based on analytical reports, the transformation through FinTech solutions and digital platforms in the securities market of Uzbekistan is clearly observed in 2023 and 2024. In 2023, the number of exchange trading transactions was 411,870, while by the end of 2024, this figure reached 446,967. Additionally, the trading volume in 2023 was 2.71 trillion UZS, and in 2024, this figure increased to 19.56 trillion UZS, reflecting a growth of approximately 7.2 times. The following table compares the key indicators for 2023 and 2024:



1-Table Key indicators of 2023 and 2024.²

Indicators	2023 year	2024 year	Changes (%)
Number of transactions.	411 870 units	446 967 units	+8.6%
Trading volume.	2.71 trillion UZS	19.56 trillion UZS	+622%
Average daily transactions.	1 660 units (2023 average)	1 802 units (2024 average)	+8.5%
Average daily trading volume.	10.94 billion UZS.	78.9 billion UZS	+621%

This table shows that as a result of the market's digital transformation, there has been an increase not only in the overall trading volume but also in the number of transactions. The implementation of mobile applications and FinTech platforms, automation of operations, and simplification of investment processes through online systems have significantly enhanced the market's transparency and reliability.

Additionally, as a result of the application of FinTech solutions, the average daily number of transactions was 327 in 2022, while by 2023, this figure reached 1,660, reflecting an increase of 408%. This confirms the importance of FinTech technologies in accelerating investment processes and encouraging the entry of retail investors into the market. The following table presents the key indicators demonstrating the impact of FinTech:

2-Table Key indicators demonstrating the impact of FinTech.³

Indicators	2022 year (Previous period)	2023 year (FinTech period)	Effect
Average daily number of transactions	327 units	1 660 units	+408% o'sish
Automation of the trading process	Relatively low level.	Expanded through mobile applications and digital platforms.	Operations accelerated.

The results show that the implementation of digital transformation and FinTech solutions is enhancing operational efficiency, significantly increasing trading volume, and strengthening investor participation in the securities market of Uzbekistan. These results confirm that further digitization of the market could drive even more robust development in the future.

The results show that the transformation being carried out through FinTech solutions and digital platforms has significantly increased the speed, transparency, and reliability of exchange trading operations. These results will serve as a solid scientific foundation for the future digitalization of the market and the development of growth strategies based on innovative technologies.

² Prepared by the researcher based on the annual reports of the "Tashkent" Republican Stock Exchange. uzse.uz

³ Prepared by the researcher based on the annual reports of the "Tashkent" Republican Stock Exchange. uzse.uz



Discussions

The results of this research clearly reflect the fundamental changes occurring in the securities market of Uzbekistan through the implementation of FinTech solutions and digital platforms. The results show that the sharp increase in the number and volume of trading transactions in 2023 and 2024 proves that FinTech technologies are significantly improving market efficiency. For example, in 2023, the number of transactions was 411,870, while in 2024, this figure reached 446,967, and the trading volume increased from 2.71 trillion UZS to 19.56 trillion UZS. These growth rates align with global trends. Additionally, the automation of operations through FinTech solutions, digital identification systems, and internal control protocols play a decisive role in ensuring market transparency and security.

As a result of operations conducted through digital platforms and mobile applications, investors, particularly retail investors, have significantly increased their interest in the market. In 2022, the average daily number of transactions was 327, and in 2023, this figure reached 1,660, representing a 408% increase. This situation shows that the ability of FinTech technologies to provide fast and efficient services, as well as the automation of operational processes, is closely related to the simplification of investment processes. However, it is important to recognize that technical limitations, cybersecurity threats, and integration challenges may also arise during the digital transformation process. Therefore, the updates adopted by regulatory bodies and the improvement of internal control protocols play a crucial role in mitigating these risks.

The methodology and analytical methods used in the research allowed for comparing the effectiveness of FinTech solutions in Uzbekistan's financial market with international experience and standards. The indicators obtained from official reports, press releases, and regulatory documents for 2023 and 2024 clearly demonstrate the positive impact of FinTech integration on improving market efficiency. Additionally, the improvement of the internal control system and the digital identification process has strengthened trust among market participants. The role of FinTech solutions in automating investment processes, increasing operational efficiency, and ensuring transparency is further strengthened. The security and privacy issues that may arise during this integration process need to be studied in more depth in the future.

A comprehensive analysis of the results shows that the application of FinTech solutions in Uzbekistan's securities market has not only increased trading volume and the number of transactions but also positively impacted the overall transparency, speed, and security of investment processes. As a result, mutual trust among market participants has been strengthened, and investor interest in the market has significantly increased. Additionally, regulatory updates and internal control protocols support the success of the digital transformation being implemented through the integration of FinTech solutions. In the future, it is essential to conduct further research to address the technical and regulatory limitations in this transformation process, strengthen cybersecurity measures, and explore the use of new innovative technologies.

The results obtained from the transformation of Uzbekistan's securities market based on FinTech solutions and digital platforms clearly reflect the positive impact of this process on



investment activities and its future prospects. The research results, aligned with both regional market conditions and international standards, provide a scientific foundation for developing future strategies for the digital transformation of the market and further development based on innovative technologies.

Conclusion

The results of this study clearly reflect the fundamental changes occurring in Uzbekistan's securities market through the implementation of FinTech solutions and digital platforms. The indicators from 2023 and 2024, such as the growth in the number of transactions, the sharp increase in trading volume, and the rise in average daily operations, confirm that FinTech technologies are significantly enhancing market efficiency. The results, aligning with global trends, demonstrate the importance of FinTech solutions in ensuring operational efficiency, transparency, and security through the automation and digitization of investment processes. Moreover, the trading processes conducted through mobile apps and digital platforms have increased retail investor participation and contributed to strengthening market trust.

Additionally, regulatory updates have ensured the alignment of FinTech solutions with efficiency and security standards. The updates adopted based on regulatory documents dated June 27, 2023, and April 26, 2024, have enhanced the security of market participants' operations through the implementation of remote digital identification and systems for combating money laundering and financing terrorism. The results show that strengthening digital identification and internal control protocols positively impacts the market's stable development. At the same time, this transformation process faces issues such as technical limitations, cybersecurity threats, and the harmonization of regulatory requirements, and future research should focus on a deeper examination of these risks and constraints.

The results obtained from the transformation of Uzbekistan's securities market based on FinTech solutions and digital platforms clearly reflect the positive impact of this process on investment activities and its future prospects. The research findings, which align with both regional market conditions and international standards, provide a scientific foundation for developing further strategies for the digital transformation of the market and its development based on innovative technologies in the future.

References:

1. "Tashkent" Republic Stock Exchange 2023 Analytical Reports (uzse.uz)
2. "Tashkent" Republic Stock Exchange 2024 Analytical Reports (uzse.uz)
3. Resolution on Amendments to the "Regulation on the Requirements for Banks to Engage in Professional Activities as Investment Intermediaries, Investment Asset Managers, and Investment Consultants in the Securities Market" dated June 27, 2023
4. Resolution on the Approval of the "Regulation on Remote Digital Identification of Clients in the Securities Market" dated April 26, 2024
5. Arner, D. W., Barberis, J. N., & Buckley, R. P. (2015). The Evolution of Fintech: A New Post-Crisis Paradigm? University of Hong Kong Faculty of Law Research Paper No. 2015/047, UNSW Law Research Paper No. 2016-62. SSRN:



- <https://ssrn.com/abstract=2676553>
6. Gomber, P., Koch, J.-A., & Siering, M. (2017). Digital Finance and FinTech: Current Research and Future Research Directions. *Journal of Business Economics*, 87(5), 537–580. DOI: 10.1007/s11573-017-0852-x
 7. Buckley, R. P., Arner, D. W., Veidt, R., & Zetsche, D. A. (2019). FinTech, RegTech, and the Reconceptualization of Financial Regulation. *Northwestern Journal of International Law & Business*, 37(3), 371–413. Available at: <https://scholarlycommons.law.northwestern.edu/njilb/vol37/iss3/2/>
 8. Haddad, C., & Hornuf, L. (2019). The Emergence of the Global Fintech Market: Economic and Technological Determinants. *Small Business Economics*, 53(1), 81–105. DOI: 10.1007/s11187-018-9991-x
 9. Alt, R., Beck, R., & Smits, M. T. (2018). FinTech and the Transformation of the Financial Industry. *Electronic Markets*, 28(3), 235–243. DOI: 10.1007/s12525-018-0310-9
 10. Zavolokina, L., Dolata, M., & Schwabe, G. (2016). FinTech – What's in a Name? Proceedings of the 37th International Conference on Information Systems (ICIS 2016). Available at: https://www.researchgate.net/publication/311735840_FinTech_-_What%27s_in_a_Name
 11. Thakor, A. V. (2020). FinTech and Banking: What Do We Know? *Journal of Financial Intermediation*, 41, 100833. DOI: 10.1016/j.jfi.2019.100833
 12. Philippon, T. (2016). The FinTech Opportunity. National Bureau of Economic Research (NBER) Working Paper No. 22476. DOI: 10.3386/w22476
 13. Lee, I., & Shin, Y. J. (2018). Fintech: Ecosystem, Business Models, Investment Decisions, and Challenges. *Business Horizons*, 61(1), 35–46. DOI: 10.1016/j.bushor.2017.09.003
 14. Chen, M. A., Wu, Q., & Yang, B. (2019). How Valuable Is FinTech Innovation? *The Review of Financial Studies*, 32(5), 2062–2106. DOI: 10.1093/rfs/hhz014

