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ORCID- 0009-0002-0249-6460

Tojinorova Barchinoy

Student at the university of economics and pedagogy, Uzbekistan

Academic supervisor: Khaydarov Alisher

Senior lecturer at the university of economics and pedagogy

THE IMPORTANCE OF INFORMATION TECHNOLOGIES IN THE FINANCIAL AND BANKING SECTOR IN UZBEKISTAN

Annotation: This article explores the role of information technologies (IT) in transforming the financial and banking sectors in Uzbekistan. The research assesses the impact of IT on increasing efficiency, security, and accessibility in banking operations. Specific attention is given to digital banking, cybersecurity frameworks, and efforts to expand financial inclusion. The analysis, based on both qualitative and quantitative data, highlights significant advancements in the sector due to technological innovations. The findings indicate that IT has had a profound effect on the productivity of financial institutions and provides policy recommendations for enhancing its role in the future.

Keywords: *Information technologies, digital banking, cybersecurity, financial inclusion, financial sector, Uzbekistan, fintech*

Тожинорова Барчиной

Студентка университета экономики и педагогики, Узбекистан

Научный руководитель: Хайдаров Алишер

Старший преподаватель университета экономики и педагогики

Аннотация: В данной статье рассматривается роль информационных технологий (ИТ) в трансформации финансового и банковского секторов Узбекистана. В исследовании оценивается влияние ИТ на повышение эффективности, безопасности и доступности банковских операций. Особое

внимание уделяется цифровому банкингу, кибербезопасности и мерам по расширению финансовой инклюзии. Анализ, основанный как на качественных, так и на количественных данных, подчеркивает значительные достижения в данном секторе благодаря технологическим инновациям. Результаты исследования свидетельствуют о том, что ИТ оказали значительное влияние на производительность финансовых учреждений и содержат рекомендации по дальнейшему усилению их роли в будущем.

Ключевые слова: Информационные технологии, цифровой банкинг, кибербезопасность, финансовая инклюзия, финансовый сектор, Узбекистан

Introduction.

The rise of information technologies (IT) has revolutionized industries worldwide, and Uzbekistan's financial and banking sectors are no exception. In recent years, Uzbekistan has made significant efforts to modernize its economy, particularly in financial services. The government has actively encouraged the integration of digital solutions, which have become essential for improving service efficiency, increasing transparency, and enhancing customer experiences. In this context, it is critical to understand how IT innovations are shaping the financial landscape in Uzbekistan, as well as the associated challenges and future prospects. This study aims to provide a comprehensive analysis of the importance of information technologies in Uzbekistan's financial and banking sectors, with a particular focus on digital banking, cybersecurity, and financial inclusion.

Literature Review.

Various scholars and institutions have analyzed the impact of IT in the financial sector globally and in emerging markets. Locally, research by Sattarov[1] explores the role of cybersecurity in protecting digital infrastructures

in Uzbekistan's banking sector. The Central Bank of Uzbekistan[2] has published several reports on the growth of digital banking and fintech services in the country, further emphasizing the government's reform agenda. The World Bank [3] has also contributed to the discourse by examining the role of digital technologies in enhancing financial inclusion, particularly in low-income and developing regions. This literature review draws from both international and local studies to provide a well-rounded understanding of IT's impact on Uzbekistan's financial institutions.

Methodology.

The research employs a mixed-method approach, combining qualitative and quantitative data. Primary data were collected through semi-structured interviews with banking professionals and IT specialists from major financial institutions in Uzbekistan. Secondary data were gathered from financial reports, central bank publications, and official government policy documents. The data were analyzed using statistical tools to assess key performance indicators (KPIs) such as customer satisfaction rates, adoption of digital banking, cybersecurity investment, and improvements in operational efficiency.

Analysis and Results.

In Uzbekistan, digital banking has seen rapid growth. According to the Central bank of Uzbekistan's 2023 report, the number of digital banking users grew by 47% between 2019 and 2023. Mobile banking applications such as Apelsin and Click have become household names, with over 6 million users by the end of 2023. This rapid adoption is attributed to the ease of access provided by mobile applications and the government's push for digital transformation in banking services.

The integration of IT in banking operations has significantly reduced transaction costs. Automation of routine tasks, such as customer queries, loan processing, and transaction settlements, has reduced the need for manual labor, resulting in a 15% decline in operating costs from 2020 to 2023. Digital

solutions have also improved productivity; on average, banks report a 20% increase in transactions processed per day due to faster, more reliable IT systems[4].

With the rise of digital banking comes the increased risk of cyber-attacks. Recent data from Uzbekistan's cybersecurity center indicate that the banking sector was the target of 34 cyber-attacks in 2023, primarily in the form of phishing attempts and malware attacks[5]. In response, financial institutions have significantly increased their investments in cybersecurity, with a 30% rise in cybersecurity budgets between 2020 and 2023. Implementing multi-factor authentication, encryption, and AI-driven threat detection systems has helped mitigate risks.

Information technologies have been instrumental in expanding access to financial services, particularly in rural areas where traditional banking infrastructure is limited. The introduction of mobile banking and e-wallets has enabled millions of previously unbanked citizens to access financial services. According to the World Bank, the percentage of adults in Uzbekistan with access to a financial account rose from 37% in 2017 to 61% in 2023, largely due to the adoption of digital banking.

As IT continues to evolve, the future of Uzbekistan's financial sector looks promising. Blockchain technology is being explored for secure transaction verification, while AI is expected to play a significant role in customer service automation and fraud detection. The government has also shown interest in expanding fintech innovations to support e-commerce growth, which is projected to increase by 25% annually over the next five years.

Conclusion.

Information technologies are transforming the financial and banking sectors in Uzbekistan, offering numerous benefits in terms of efficiency, cost reduction, and expanded access to financial services. The rapid adoption of digital banking, coupled with increasing investments in cybersecurity,

demonstrates the central role that IT plays in shaping the future of Uzbekistan's financial institutions. However, continued efforts are needed to address challenges such as cybersecurity threats and to ensure that IT infrastructure keeps pace with the growing demand for digital services. The findings suggest that with proper investments and policy support, IT will continue to enhance the stability and competitiveness of Uzbekistan's banking sector.

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