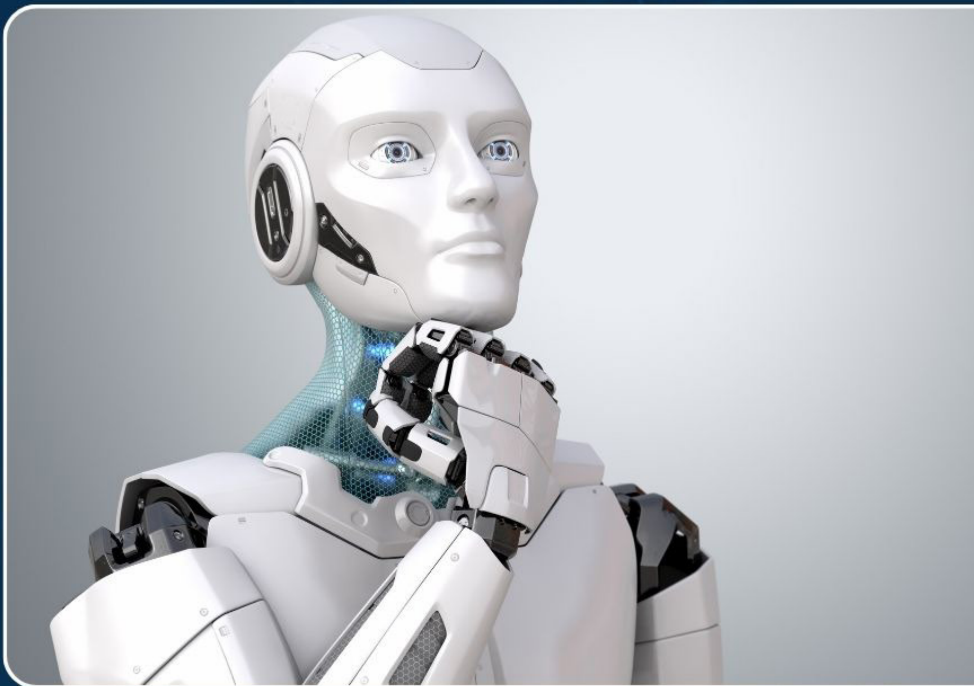
MUHANDISLIK & IQTISODIYOT

ijtimoiy-iqtisodiy, innovatsion texnik, fan va ta'limga oid ilmiy-amaliy jurnal

№4

2025 APREL



Milliy nashrlar

OAK: https://oak.uz/pages/4802

05.00.00 - Texnika fanlari
08.00.00 - Iqtisodiyot fanlar

MUHANDISLIK & IQTISODIYOT

ijtimoiy-iqtisodiy, innovatsion texnik, fan va ta'limga oid ilmiy-amaliy jurnal

*Elektron nashr,
680 sahifa, aprel, 2025-yil.*

MUHANDISLIK & IQTISODIYOT

ijtimoiy-iqtisodiy, innovatsion texnik, fan va ta'limga oid ilmiy-amaliy jurnal

05.01.00 – Axborot texnologiyalari, boshqaruv va kompyuter grafikasi
05.01.01 – Muhandislik geometriyasi va kompyuter grafikasi. Audio va video texnologiyalari
05.01.02 – Tizimli tahlil, boshqaruv va axborotni qayta ishlash
05.01.03 – Informatikaning nazariy asoslari
05.01.04 – Hisoblash mashinalari, majmualari va kompyuter tarmoqlarining matematik va dasturiy ta'minoti
05.01.05 – Axborotlarni himoyalash usullari va tizimlari. Axborot xavfsizligi
05.01.06 – Hisoblash texnikasi va boshqaruv tizimlarining elementlari va qurilmalari
05.01.07 – Matematik modellashtirish
05.01.11 – Raqamli texnologiyalar va sun'iy intellekt
05.02.00 – Mashinasozlik va mashinashunoslik
05.02.08 – Yer usti majmualari va uchish apparatlari
05.03.02 – Metrologiya va metrologiya ta'minoti
05.04.01 – Telekommunikasiya va kompyuter tizimlari, telekommunikasiya tarmoqlari va qurilmalari. Axborotlarni taqsimlash
05.05.03 – Yorug'lik texnikasi. Maxsus yoritish texnologiyasi
05.05.05 – Issiqlik texnikasining nazariy asoslari
05.05.06 – Qayta tiklanadigan energiya turlari asosidagi energiya qurilmalari
05.06.01 – To'qimachilik va yengil sanoat ishlab chiqarishlari materialshunosligi
05.08.03 – Temir yo'l transportini ishlatish
05.09.01 – Qurilish konstruksiyalari, bino va inshootlar
05.09.04 – Suv ta'minoti. Kanalizatsiya. Suv havzalarini muhofazalovchi qurilish tizimlari
10.00.06 – Qiyosiy adabiyotshunoslik, chog'ishtirma tilshunoslik va tarjimashunoslik
10.00.04 – Yevropa, Amerika va Avstraliya xalqlari tili va adabiyoti

08.00.01 - Iqtisodiyot nazariyasi
08.00.02 - Makroiqtisodiyot
08.00.03 - Sanoat iqtisodiyoti
08.00.04 - Qishloq xo'jaligi iqtisodiyoti
08.00.05 - Xizmat ko'rsatish tarmoqlari iqtisodiyoti
08.00.06 - Ekonometrika va statistika
08.00.07 - Moliya, pul muomalasi va kredit
08.00.08 - Buxgalteriya hisobi, iqtisodiy tahlil va audit
08.00.09 - Jahon iqtisodiyoti
08.00.10 - Demografiya. Mehnat iqtisodiyoti
08.00.11 - Marketing
08.00.12 - Mintaqaviy iqtisodiyot
08.00.13 - Menejment
08.00.14 - Iqtisodiyotda axborot tizimlari va texnologiyalari
08.00.15 - Tadbirkorlik va kichik biznes iqtisodiyoti
08.00.16 - Raqamli iqtisodiyot va xalqaro raqamli integratsiya
08.00.17 - Turizm va mehmonxona faoliyati

Ma'lumot uchun, OAK Rayosatining 2024-yil 28-avgustdagi 360/5-son qarori bilan "Dissertatsiyalar asosiy ilmiy natijalarini chop etishga tavsiya etilgan milliy ilmiy nashrlar ro'yxati"ga texnika va iqtisodiyot fanlari bo'yicha "Muhandislik va iqtisodiyot" jurnali ro'yxatga kiritilgan.

Muassis: "Tadbirkor va ishbilarmon" MChJ

Hamkorlarimiz:

1. Toshkent shahridagi G.V.Plexanov nomidagi Rossiya iqtisodiyot universiteti
2. Toshkent davlat iqtisodiyot universiteti
3. Toshkent irrigatsiya va qishloq xo'jaligini mexanizatsiyalash muhandislari instituti" milliy tadqiqot universiteti
4. Islom Karimov nomidagi Toshkent davlat texnika universiteti
5. Muhammad al-Xorazmiy nomidagi Toshkent axborot texnologiyalari universiteti
6. Toshkent davlat transport universiteti
7. Toshkent arxitektura-qurilish universiteti
8. Toshkent kimyo-texnologiya universiteti
9. Jizzax politexnika instituti

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

MUNDARIJA

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

MUNDARIJA СОДЕРЖАНИЕ CONTENTS

O‘ZBEKISTON RESPUBLIKASI TIJORAT BANKLARI FAOLIYATIDA BIZNESI EKOTIZIMINI TASHKIL ETISH YO‘LLARI VA PRINSIPLARI

Shoymardonov Orziqul Jo‘ra o‘g‘li
TDIU, PhD.

Abstract: this article will focus on the analysis of improving the efficiency of the organization of the business ecosystem in the activities of commercial banks in our country, as well as improving the prospects for development. The problems existing in the world related to the effective organization of digital platforms and ecosystems by expanding their possibilities of application in banking, as well as author's approaches and proposals to overcome them are also presented.

Keywords: banking ecosystem, commercial banks, banking system, loan, deposit, interest and interest-free expenses, bank income and expenses, profit, net profit.

Annotatsiya: Ushbu maqolada mamlakatimizdagi tijorat banklari faoliyatida biznes ekotizimini tashkil etishning samaradorligini oshirish tahlili hamda rivojlantirish istiqbollarini takomillashtirish haqida so’z boradi. Shuningdek, jahonda raqamli platformalar va ekotizimlardan bank foliyatida qo‘llash imkoniyatlarini kengaytirish orqali ularning faoliyatini samarali tashkil etish bilan bog‘liq bo‘lgan mavjud muammolar hamda ularni bartaraf etish bo’yicha muallif yondashuvlari va takliflari keltirilgan.

Kalit so‘zlar: tijorat banklari ekotizimi, tijorat banklari, bank biznesi ekotizmi, kredit, depozitlar, bank daromadi va xarajati, foyda, sof foyda.

Аннотация: В данной статье речь пойдет об анализе повышения эффективности организации экосистемы бизнеса в деятельности коммерческих банков в нашей стране, а также о совершенствовании перспектив развития. Представлены также существующие в мире проблемы, связанные с эффективной организацией деятельности цифровых платформ и экосистем путем расширения их возможностей применения в банковской деятельности, а также авторские подходы и предложения по их преодолению.

Ключевые слова: банковская экосистема, коммерческие банки, банковская система, кредит, депозит , процентные и беспроцентные расходы, банковские доходы и расходы, прибыль, чистая прибыль.

INTRODUCTION

As a result of the fact that the processes of using traditional payment methods in Uzbekistan are still ongoing, and this process consists of many stages, there are inconveniences in the payment system. Since having an independent banking system, commercial banks are trying to make the payment process efficient, safe, and at the same time fast, cheap, and simple by applying the latest technologies to payment systems. That is why modern banks and payment services are researching in the field of competitive payments to create new opportunities to satisfy the latest demands of their customers. The Republic defines tasks such as “extensive introduction of information technologies, financial technologies, ensuring the safety of information, as well as taking quick measures to reduce the impact of the human factor in the provision of financial services on the basis of modern service solutions to the banking system." It is relevant to scientifically substantiate the system of introducing the most modern methods for managing information technology products, assets and liabilities, and communication with customers in banks. The most important tasks of banks are to provide a continuous supply of monetary turnover and capital turnover, and to provide ample opportunities for investing funds in order to accumulate funds of the national economy. In the modern economy, ecosystem business models are widespread, the potential of which is increasingly understood by financial institutions.

ANALYSIS OF LITERATURE ON THE TOPIC

Banking business ecosystems are networks of interconnected organizations, services, and technologies that work together to provide financial services. They bring together banks, financial institutions, technology providers, and other market participants to create innovative and effective solutions for customers.

O. Dyachenko believes that "the introduction of business ecosystems in commercial banks creates the possibility of compensating for the insufficient development of IT systems and remote provision of many services, which allows collecting and processing large volumes of information about users both online and offline, and establishing effective communication through any available channels."

According to economist A. N. Ivanov, "the concept of an ecosystem in the banking business implies the integration of several services into a single user interface, which, in turn, generates added value for the client and creates a number of conveniences."

A study by the McKinsey consulting organization revealed that "private equity profitability (ROE) in banks around the world has stagnated – over the past 10 years, the rate has averaged around 8–10 percent. It is projected to be in the range of 5.2–9.3 percent by 2025." This situation is not limited to financial services within the banking system but "stimulates the development of ecosystem mechanisms. In particular, e-commerce online platforms allow banks to identify their clients' financial status, psychological profiles, and preferences, while maintaining close contact with them"[1].

In their research, M. J. Jacobides, K. Kennamo, and A. Gawer distinguish two main approaches to defining the concept of an ecosystem: the first considers an ecosystem as a group of organizations interconnected by production factors and processes, while the second sees it as a system of interconnected technologies.

R. Adner, in his academic vision, interprets ecosystems in two main directions: ecosystems as affiliation and ecosystems as structure. In the former, the focus is on eliminating traditional industrial boundaries and fostering interdependence and symbiotic relationships among companies both within and across industries. In the latter, emphasis is placed on co-creating a value proposition and collaborating to achieve it. Moreover, the concept of ecosystems as affiliation is not entirely new – rather, it is an evolved idea that studies the enterprise from a macro-level perspective. The ecosystem is defined as a set of multilateral partners, interconnected through a structure designed to realize specific value propositions and ensure the coherence of innovation activities.

Researchers such as R. Kapur, A. Gawer, M. Kusumano, G. Parker, and M. Van Alstyne focus their scientific research on platform-based business ecosystems and differentiate between product ecosystems and platform ecosystems.

A platform ecosystem is managed by its owner, who defines the platform architecture and rules for participation. Unlike a product ecosystem, which refers to one-way market interaction (e.g., between a producer and a consumer), a platform ecosystem facilitates two-way or multilateral market interactions. These occur within the framework of cross-functional network effects between suppliers and users.

1 www.cbr.ru – ЦБ РФ «Экосистемы: подходы к регулированию». апрель 2021. – С. 6

In the context of scientific research, it is also essential to clarify the definition of a banking ecosystem. A commercial banking ecosystem is understood as a banking organization or a group of companies, headed by a bank, that provides a wide range of financial and non-financial services and products to meet broader customer needs.

A. A. Koblko defines an ecosystem as “a complex of enterprises that offer products and services from various sectors of the economy, primarily under a single brand and without regard to their legal structure.” However, according to the author of the dissertation, this definition fails to account for two fundamental and specific characteristics of ecosystems: the high level of interdependence and complementarity among participants. Thus, the economic definition of the concept of an ecosystem can be broadly categorized into three main groups.

RESEARCH METHODOLOGY

In the process of writing a scientific article, abstraction, grouping, comparison, retrospective and prospective analysis, empirical analysis, and other techniques were used. In the article, the comparative method was applied: in world practice, the business ecosystem of commercial banks was formed, as a rule, by comparing the fundamentals of the business ecosystem of commercial banks with the existing foundations in our country, in order to improve the efficiency of the services of several platform organizations – services that provide various products and services to the consumer.

ANALYSIS AND RESULTS

The banking system of the Republic of Uzbekistan is one of the most important and rapidly developing sectors of the national economy. Today, special attention is paid to further improving the banking system, promoting the attraction of temporarily idle funds from the population and business entities into deposits in commercial banks, increasing the capitalization level of banks, and ensuring the broad participation of commercial banks in investment processes.

The specifics of banking activity – including decision-making, customer relations, and service delivery – impose entirely new requirements on the set of innovative tools that can be employed in developing the financial market. Traditional marketing methods used in other sectors do not always align fully with the unique characteristics of the banking industry.

In today’s context, the intensification of geopolitical processes and the dispersed mobility of people have necessitated favorable cross-border interactions between countries, even under challenging conditions of barriers and restrictions. Cross-border payments for enterprises are often accompanied by additional costs, such as compliance with regulatory documents, foreign exchange fees, and time-related expenses. In this regard, «the 2024 payments ecosystem is focused on providing new digital processing technologies for the simple, cost-effective implementation of cross-border payments.»

The Single Euro Payments Area (SEPA) is a European Union initiative that enables seamless transactions across 36 countries. SEPA allows for non-cash payments in euros – via credit transfers and direct debits – to be conducted safely, quickly, and efficiently, both within national borders and across member states, all while adhering to unified rules and standards.

The Automated Clearing House (ACH) network is a U.S.-based digital payment ecosystem designed to enable secure and cost-effective electronic transfers of funds and data between bank accounts across all U.S. states. The ACH system ensures the efficient circulation of money, regardless of geographic boundaries within the country.

The global acceptance of crypto-digital banking is expected to reach a significant milestone. By 2030, blockchain technology is forecasted to become a major contributor to global GDP, with estimates reaching up to $2 trillion. The transformative potential of blockchain lies in its ability to enable secure, transparent, and decentralized financial operations across borders, thereby revolutionizing traditional banking models.

Table 1. Dynamics of growth of the number of customers and their accounts registered in the National Information base of bank depositors.

Year (as of 1 January)	Number of customers	Number of accounts
2013 year	1285424	4622770
2014 year	1359831	4289556
2015 year	1432849	5030704
2016 year	1515004	5364838
2017 year	1638673	5809172
2018 year	1755492	6469921
2019 year	1880634	7263621
2020 year	2094262	7740964
2021-year	2145157	8270560
2022-year	2264419	8839315
2023-year	2383682	9408070

Table 1 data analysis shows that the number of registered customers in the national database continues to demonstrate a growth trend, reaching 2,383,682 as of January 1, 2022. In particular, this figure increased by 119,263 compared to the same period in 2021. The number of accounts has also risen significantly – reaching 9,408,070, which is an increase of 568,755 compared to 2021. All information regarding the number of customers and their accounts, registered in the National Information Base of Bank Depositors, serves as one of the key guarantees for commercial banks and economic entities operating within the payment system.

This growth reflects the continuous implementation of innovative technologies, leading to the comprehensive digital transformation of the economy.

Today, residents extensively use commercial banks' mobile applications to perform real-time peer-to-peer (P2P) card-to-card transactions, pay taxes, utility bills, and other government fees, obtain microloans and credit offers, make online deposits, open deposit and loan accounts remotely, make payments using international bank cards, carry out currency conversion operations, and access other remote banking services.

To simplify the use of payment services, the number of ATMs and self-service kiosks installed at banking infrastructure facilities, tourism locations, and other venues increased by 57%, reaching more than 20.4 thousand as of January 1, 2023.

As a result of efforts aimed at enhancing functionality, developing infrastructure, and boosting the popularity of the national HUMO payment system, the share of transactions processed via HUMO ATMs in the total volume of ATM operations increased notably – from 35% to 49% during 2021.

Table 2. Dynamics of the growth of the number of payment terminals, ATMs and kiosks installed in the Republic of Uzbekistan and the amount of payments made through payment terminals.

Date	Number of installed payment terminals	Number of installed ATMs and kiosks	The amount of payments made through payment terminals (from the beginning of the Year), billion. Soum
01.01.2013 y.	112712	1417	16308
01.01.2014 y.	129679	1733	22758
01.01.2015 y.	169581	2012	31324
01.01.2016 y.	183060	2345	53050
01.01.2017 y.	208536	4954	52972

01.01.2018 y.	235712	5632	63712
01.01.2019 y.	244913	6859	71020
01.01.2020 y.	392361	9203	75051
01.01.2021 y.	438410	11800	81000
01.01.2022 y.	433384	12940	111137
01.01.2023 y.	434018	20379	177671

An analysis of Table 2 shows that the number of payment terminals, ATMs, and self-service kiosks installed across the Republic of Uzbekistan has been increasing steadily year by year. During 2022, the number of newly installed payment terminals rose by 634 units, with 19 commercial banks recording growth. The most significant increases were observed in MKBANK (5.2 thousand units), Alokabank (1.4 thousand units), and Universalbank (1.1 thousand units). On the other hand, 13 banks experienced a decrease in the number of payment terminals, with the largest declines reported by People's Bank (2.64 thousand units), Agrobank (2.58 thousand units), and Garantbank (1.20 thousand units).

Beginning in May 2022, the Central Bank of Uzbekistan started publishing official statistics on ATMs and infokiosks on the balance sheets of payment organizations, with more complete reporting from June 2022. As a result, the total increase in the number of ATMs and infokiosks during 2022 amounted to 7.4 thousand units. The highest growth was recorded by People's Bank (899 units), followed by MKBANK (303 units), Agrobank (238 units), Uzbek Industrial and Construction Bank (113 units), and Rural Construction Bank (100 units). In total, 17 commercial banks reported an increase in the number of ATMs and infokiosks, while 7 banks maintained the same figures, and 9 banks reported a decrease. The largest reductions were seen at ATB Kapitalbank (1,177 units), JSCB Avtomobilbank (74 units), Asakabank (49 units), OFBank (41 units), and Mortgage Bank and Turonbank (38 units each).

As of January 1, 2023, the largest number of ATMs and infokiosks were registered at People's Bank (2,269 units), Agrobank (2,142 units), and ATB Kapitalbank (2,096 units). Despite previously leading the ATM and kiosk segment, Kapitalbank's market share dropped significantly from 25% in the previous year to just 10%.

In 2022, the average monthly proceeds per terminal amounted to approximately 34 million UZS, compared to 210 million UZS per month in 2021. This decline highlights the evolving dynamics of payment infrastructures and user behavior. To date, Uzbekistan has established an efficient payment system that meets international standards and consists of three interconnected systems: interbank, intrabank, and retail payment systems.

When discussing the development of the digital economy, it is essential to emphasize that all components are interconnected. Without the widespread expansion of broadband and mobile internet access, it becomes difficult to make meaningful progress in areas such as e-government, digital entrepreneurship, internet-based education, and digital banking.

Traditional banks have recently noticed a shift in customer behavior, with many individuals turning to competitors that do not even maintain physical branches. The reason is simple: people want to save time and prefer service models that allow them to open an account in person once and conduct all subsequent operations remotely and conveniently. As a result, customer bases are gradually shifting toward institutions offering fundamentally different, more user-centric approaches to banking. Moreover, the digital transformation enables banks to gain deeper insights into customer behavior, habits, needs, and preferences – ultimately enhancing personalization and service quality.

CONCLUSIONS AND SUGGESTIONS

In general, the effective use of financial market conditions and products depends largely on financial literacy and consumer protection, which serve as the foundation for attracting financial institutions and customers, as well as fostering sustainable interaction between them. In this context, requirements have been established for banks to maintain accessible websites, functional call centers, and mechanisms for handling and reviewing consumer complaints.

Digital banking primarily targets a technologically-savvy audience – particularly young professionals and businesses – who are accustomed to online financial services. The main sources of income for such banks typically include transaction fees, paid subscriptions for VIP or premium services, and commissions from third-party integrations (for instance, e-commerce platforms embedded in banking apps that pay a fee for digital access). While there are many successful examples of digital banking, it is important to acknowledge the challenges as well – most of which relate to the usability and reliability of digital products.

It has been revealed that commercial banks in Uzbekistan are already offering clients advanced and high-tech online banking services. The use of remote technologies enables customers to access banking services in a convenient manner, significantly reducing both time and financial costs. The core principle of remote banking services lies in the secure exchange of information between the client and the bank, with safety and confidentiality ensured by the institution.

In the banking sector, the implementation of modern digital information technologies and specialized software not only provides a competitive edge in the financial services market, but also delivers several operational advantages. These include reducing administrative expenses, enhancing labor productivity, and minimizing time-consuming procedures. Specifically, the automation of work related to problem loans enables banks to manage a large volume of delinquent accounts more efficiently and in a shorter time frame, thereby improving the overall effectiveness of banking operations.

Literature Used

1. O‘zbekiston Respublikasi Prezidentining 2020-yil 12-maydagi PF-5992-sonli “2020–2025 yillarga mo‘ljallangan O‘zbekiston Respublikasining bank tizimini isloh qilish strategiyasi to‘g‘risida”gi Farmoni. Qonun hujjatlari ma’lumotlar milliy bazasi, 13.05.2020 y., 06/20/5992/0581-son.
2. Dyachenko O. (2018). Finansovaya ekosistema: vse v odnom. Natsionalniy bankovskiy zhurnal (NBJ), 2018, № 5.
3. Ivanov A. Ekosistema naoborot [Elektron resurs] // vc.ru. – Rejim dostupa: https://vc.ru/finance/97873-ekosistemanaoborot
4. Jacobides M., Cennamo C., Gawer A. (2015). Industries, Ecosystems, Platforms, and Architectures: Rethinking our Strategy Constructs at the Aggregate Level. Working paper, London Business School.
5. Adner R. (2017). Ecosystem as structure: An actionable construct for strategy. Journal of Management, Vol. 43, No. 1, pp. 39–58. DOI: https://doi.org/10.1177/0149206316678451
6. Parker G., Van Alstyne M.W. (2014). Platform strategy. School of Management Research Paper No. 2439323, Boston University. DOI: https://doi.org/10.2139/ssrn.2439323
7. Gawer A., Cusumano M.A. (2002). Platform Leadership: How Intel, Microsoft, and Cisco Drive Industry Innovation. Harvard Business School Press, Boston.
8. Panova G. (2021). Paradoxes of financial market institutions: traditions and ecosystems. In: Financial Markets Evolution. Springer International Publishing. DOI: 10.1007/978-3-030-71337-9_3
9. Kobylenko A.A. (2019). Ekosistemnye kompanii: granitsy i etapy razvitiya. Ekonomicheskaya nauka sovremennoy Rossii, No. 4 (87), pp. 126–136. DOI: 10.33293/1609-1442-2019-4(87)-126-136

MUHANDISLIK
& IQTISODIYOT

ijtimoiy-iqtisodiy, innovatsion texnik, fan va ta’limga oid ilmiy-amaliy jurnal

Ingliz tili muharriri: Feruz Hakimov

Musahhih: Zokir Alibekov

Sahifalovchi va dizayner: Oloviddin Sobir o‘g‘li

2025. № 4

“Muhandislik va iqtisodiyot” jurnali 26.06.2023-yildan O‘zbekiston Respublikasi Prezidenti Adminstratsiyasi huzuridagi Axborot va ommaviy kommunikatsiyalar agentligi tomonidan №S–5669245 reyestr raqami tartibi bo‘yicha ro‘yxatdan o‘tkazilgan.
Litsenziya raqami: №095310.

Manzilimiz: Toshkent shahri Yunusobod tumani 15-mavze 19-uy