

MUHANDISLIK

& IQTISODIYOT

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

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08.00.00 - Iqtisodiyot fanlar



**BAKALAVR
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- 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
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- 05.02.08 – Yer usti majmualari va uchish apparatlari
- 05.03.02 – Metrologiya va metrologiya ta'minoti
- 05.04.01 – Telekommunikatsiya va kompyuter tizimlari, telekommunikatsiya 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
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- 08.00.03 – Sanoat iqtisodiyoti
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- 08.00.05 – Xizmat ko'rsatish tarmoqlari iqtisodiyoti
- 08.00.06 – Ekonometrika va statistika
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- 08.00.08 – Buxgalteriya hisobi, iqtisodiy tahlil va audit
- 08.00.09 – Jahon iqtisodiyoti
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- 08.00.15 – Tadbirkorlik va kichik biznes iqtisodiyoti
- 08.00.16 – Raqamli iqtisodiyot va xalqaro raqamli integratsiya
- 08.00.17 – Turizm va mehmonxona faoliyati

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ANALYSIS OF THE STATE OF IMPLEMENTATION OF FINANCIAL INNOVATIONS IN BANKS



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Abstract: Today, in the context of the digitalization of the economy, systematic measures are required to develop effective financial and economic standards for commercial banks and to ensure their innovative integration with the international banking system. The main reasons for this are increased macroeconomic uncertainty, financial globalization, the liberalization of legislation and regulation of the banking sector, a significant increase in business risks, the development of information and communication technologies and global financial groups, as well as the strengthening of global interbank relations. These trends have a dual impact on the banking sector – both positive and negative. On the one hand, they stimulate the development of new promising banking products, services, and technologies; on the other hand, they increase competition and require mobile and original solutions. Therefore, the policy of constant change and the introduction of innovations has become one of the main factors of stability, sustainable and balanced long-term development, and high competitiveness in modern economic conditions. The introduction of innovations in all areas of economic activity and the transition of the economy to innovative development are becoming both one of the state's priority areas, influencing economic growth and structural changes in the economy, and the most important means of ensuring the competitiveness of the national economy, including the banking sector. Therefore, improving the quality of financial products (services) in banking, increasing their volume, improving the methods of their provision, and enhancing long-term efficiency and continuity of operations should become the main strategy for the development of the banking sector. Thus, today the development and implementation of financial innovations in the banking sector are becoming a priority task.

Keywords: banking, innovation, digital technologies, financial innovation, efficiency, bank cards.

Annotatsiya: Bugungi kunda iqtisodiyotning raqamlashuvi sharoitida tijorat banklari uchun samarali moliyaviy-iqtisodiy standartlarni ishlab chiqish va ularning xalqaro bank tizimi bilan innovatsion birligini ta'minlash bo'yicha tizimli chora-tadbirlar talab etilmoqda. Buning asosiy sababi sifatida makroiqtisodiy noaniqlikning kuchayishi, moliyaviy globallashtirish, qonunchilikni liberallashtirish va bank sektorini tartibga solish, biznes uchun xatarlarning sezilarli darajada oshishi, axborot-kommunikatsiya texnologiyalari va global moliyaviy guruhlarining rivojlanishi, shuningdek, global banklararo aloqalarning kuchayishini keltirish mumkin. Ushbu tendensiyalar bank sektoriga ikki tomonlama – ham ijobiy, ham salbiy ta'sir ko'rsatadi. Bir tomondan, ular yangi istiqbolli bank mahsulotlari, xizmatlari va texnologiyalarini ishlab chiqishni



rag'batlantirsa, ikkinchi tomondan, raqobatni kuchaytiradi va mobil hamda original yechimlarni talab qiladi. Shunday ekan, doimiy o'zgarish va innovatsiyalarni joriy etish siyosati zamonaviy iqtisodiy sharoitlarda barqarorlik, muvozanatli uzoq muddatli rivojlanish va yuqori raqobatbardoshlikning asosiy omillaridan biriga aylandi. Xo'jalik yurituvchi subyektlar faoliyatining barcha sohalariga innovatsiyalarni joriy etish va iqtisodiyotni innovatsion rivojlanishga o'tkazish ham iqtisodiy o'sish va iqtisodiyotdagi tarkibiy o'zgarishlarga ta'sir ko'rsatuvchi davlatning ustuvor yo'nalishlaridan biriga, ham milliy iqtisodiyotning, shu jumladan, bank sektorining raqobatbardoshligini ta'minlashning eng muhim vositasiga aylanib bormoqda. Shu bois bank faoliyatida moliyaviy mahsulot (xizmat)lar sifatini oshirish, ularning hajmini ko'paytirish, taqdim etish usullarini takomillashtirish, uzoq muddatli samaradorlik va faoliyatning uzluksizligini ta'minlash bank sektori rivojlanishining asosiy strategiyasiga aylanishi kerak. Shunday qilib, bugungi kunda bank sohasida moliyaviy innovatsiyalarni ishlab chiqish va joriy etish ustuvor vazifaga aylanmoqda.

Kalit so'zlar: bank, innovatsiya, raqamli texnologiyalar, moliyaviy innovatsiyalar, samaradorlik, bank kartalari.

Аннотация: Сегодня в условиях цифровизации экономики требуются системные меры по разработке эффективных финансово-экономических стандартов деятельности коммерческих банков и обеспечению их инновационной интеграции в международную банковскую систему. Основными причинами этого являются возросшая макроэкономическая неопределенность, финансовая глобализация, либерализация законодательства и регулирования банковской сферы, существенное увеличение бизнес-рисков, развитие информационно-коммуникационных технологий и глобальных финансовых групп, а также укрепление глобальных межбанковских отношений. Эти тенденции оказывают двоякое влияние на банковский сектор — как положительное, так и отрицательное. С одной стороны, они стимулируют разработку новых перспективных банковских продуктов, услуг и технологий, с другой — усиливают конкуренцию и требуют мобильных и оригинальных решений. Поэтому политика постоянных изменений и внедрения инноваций стала одним из главных факторов стабильности, устойчивого и сбалансированного долгосрочного развития и высокой конкурентоспособности в современных экономических условиях. Внедрение инноваций во все сферы хозяйственной деятельности и переход экономики на инновационный путь развития становятся не только одним из приоритетных направлений деятельности государства, влияющих на экономический рост и структурные изменения в экономике, но и важнейшим средством обеспечения конкурентоспособности национальной экономики, в том числе банковского сектора. Поэтому повышение качества финансовых продуктов (услуг) в банковской сфере, увеличение их объемов, совершенствование способов предоставления, повышение долгосрочной эффективности и непрерывности операций должны стать основной стратегией развития банковского сектора. Таким образом, сегодня разработка и внедрение финансовых инноваций в банковской сфере становятся приоритетным направлением.

Ключевые слова: банковское дело, инновации, цифровые технологии, финансовые инновации, эффективность, банковские карты.

INTRODUCTION

Since the 1970s, the construction of a post-industrial society, which is the result of a modern socio-economic revolution, has been gaining momentum. Each socio-economic revolution includes its own technologies, engineering and production systems, and labor and management relations. In a post-industrial society, information and high-tech production, as well as computer systems, form the basis and should lead to self-realization in the construction of a new innovative form of economic organization. According to the research of foreign economists, the construction of an innovative economy is a strategic path for the development of the country in the first half of the 21st century [1].

In our opinion, an innovative economy is an economy based on the positive perception of new knowledge and skills, innovation, new ideas, systems, and information technologies, as well as the possibility of their practical application in various spheres of human life. In an innovative economy, special attention should be paid to scientific knowledge and skills. Under the influence of scientific and technical knowledge, traditional forms of material production in the conditions of an innovative economy reach a new level and change their technological base, because without new knowledge and innovations, it is impossible to bring production to a qualitatively new level and enter the world market. The introduction of innovative technologies is a key factor in strengthening competition in the market, as well as in increasing the growth rate of the industry and improving the quality of products and services. In general, we must take into account innovations in any field or activity.

The subject of this study is banking innovation, which is one of the most important components of financial innovations. In the field of innovation, the term "financial" refers to commodity-money relations for the formation and use of funds in circulation. Therefore, financial innovations are a tool for the development of social production. The main difference between financial innovations and other innovations is that financial innovations use fixed assets as a source of resources to create innovative funds. Financial innovations are

both a resource and a method for the modernization and development of commodity-money relations. They are a component of the development of modern productive forces and production relations in society. The financial environment itself creates financial instruments and technologies that are independent, self-developing products, and their quality and quantity are constantly growing in accordance with the increasing economic needs of macro- and micro-agents, as well as the conditions of the microenvironment. Therefore, a sector of financial product production associated with financial innovations has emerged. Financial innovations are both a tool for customers and a way of doing business in micro- and macroeconomics. They can be viewed as a commodity and an investment asset [2]. Financial innovation is a financial product that aims to generate benefits from the use of financial resources, risks, profitability, liquidity, and information that are undervalued under such circumstances [3].

REVIEW OF LITERATURE ON THE SUBJECT

Banking innovation is the result of financial innovation applied in banking activities, which represents a completely new or improved banking service, product, process, or technological operation in a new or traditional market segment.

First, a distinctive feature of innovative banking is that the necessary conditions for the introduction of technological banking innovations using information technologies have been created in other industries (electronics, computing, and communications). Therefore, they can be considered as imported into the banking industry from other industries [4].

Second, the division into leading banks and other banks in the banking sector is relative, since information technologies are imported. Leading banks actively participate in the absorption of technological innovations from other sectors of the economy and strengthen their position in the banking services market [5].

Third, innovations developed by banks are associated with changes in structure and infrastructure, as well as with new banking products that are directly related to the banking services market [6].

Finally, fourth, the costs of conducting scientific research in a region or city play an important role. After innovation leaders in the banking sector introduce new developments, other banks spend funds primarily on the purchase of technologies and licenses.

The rapid development of information technology, particularly innovative developments in the banking sector, has allowed globalization to go beyond previously established financial conglomerates and expand into retail markets [7].

RESEARCH METHODOLOGY

The following methods were used in conducting the research: theoretical methods (systematic, reproductive, historical, and institutional-evolutionary), empirical methods (a sociological survey to calculate the international Net-Ready Index), mathematical statistics, and graphical and tabular presentation of results.

This study used statistical data from the Central Bank of the Republic of Uzbekistan, scientific reports of the World Bank, reports of international rating agencies, and the opinions of foreign economists as an empirical base.

ANALYSIS AND RESULTS

Banks that have established themselves as global leaders have begun to provide online services worldwide and have stopped developing expensive retail networks [8]. Today, the redistribution of the electronic services and communications market is being completed due to the merger of large banks with telecommunications companies [9]. The rapid development of online banking and electronic payments via the Internet has affected the development of non-bank financial institutions that traditionally carry out transaction operations (lending and bank deposits) for the population.

Innovation in banking is aimed at developing and introducing more profitable products and services. Economist Peter Rose identifies several reasons for the development of innovative banking services. One of the key reasons is increased competition and deregulation of the financial market, which enables managers to take the initiative in developing banking services. This includes fierce competition between the global banking sector and the national sector, as well as between banking and non-banking financial institutions.

Another important reason is the tightening of international standards of banking regulation and the search for sources to compensate for the decline in the profitability of traditional banking services. There is a tendency to redistribute resources by reducing lending in order to increase the capital base and reduce assets on the balance sheet [10]. In this context, banks must develop new risk-free forms of paid services that comply with international capital requirements. Such services increase profits and compensate for the shortage of risky



balance sheet assets and unstable cash flows. As a result, underwriting, financial planning, insurance, and the sale of investment funds play a significant role.

The benefits of diversification are also crucial. Diversification is characterized by rapid turnover of funds and income growth from current banking services. It reduces the level of risks through diversification of financial activities, generates expected benefits from the introduction of innovative approaches to cash flow and new services, and leads to structural changes in cash flows and profits from active banking services. It also improves the balance between innovative and current banking services and contributes to the projected expansion of financial resources for production and service provision.

The development of innovative services is further influenced by the dependence of the bank's equity on the range and number of services offered to clients. At the same time, expansion of service activities due to growth in the size of the bank can weaken organizational management structures. This may disturb the balance between innovation and the growing needs of the bank and reduce the effectiveness of cost control. Although increasing bank size can bring economic benefits, industry-wide cost savings, and more efficient use of resources, these advantages may be offset by higher prices and increased costs associated with developing new banking services [3].

The life cycle of innovations, competition between banks, globalization of financial markets, oligopolization of the banking system, legislative regulation and introduced restrictions such as capital adequacy requirements under Basel II and Basel III, the development of information technologies, and the integration of banking and insurance systems are the main factors driving banking innovation. Innovations designed to meet consumer needs and stimulate competition for leadership in the banking services market determine the further development and implementation of new banking products and services [10]. In today's competitive environment, innovation is not a luxury but a necessity.

Two closely interrelated processes — globalization and the rapid development of information and communication technologies — have fundamentally transformed the modern banking business model. Despite their contradictory effects, these trends shape the future of the global banking system. On the one hand, they create new technological opportunities; on the other hand, they intensify competition and require unconventional and rapid strategic decisions [11].

New and modified banking products, ongoing reforms, introduced technologies, and the strategic development of commercial banks in Uzbekistan are currently focused on the most promising banking innovations, primarily targeted at individuals. As innovations and retail-oriented products become increasingly widespread, business-oriented products and the optimization of internal banking processes are developing in parallel (Figure 1).

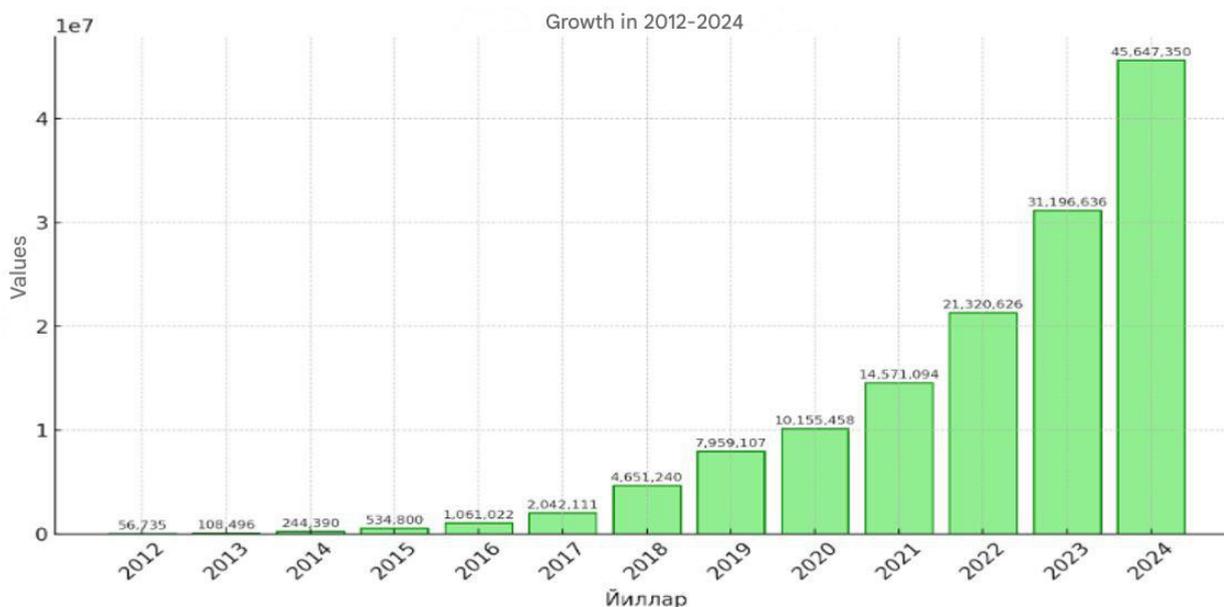


Figure 1. Number of users of remote banking systems in Uzbekistan, as of January 1, 2024¹

According to ARG's Bank Innovation Market Research, remote banking services, online banking, mobile applications, websites and marketplaces were updated more often in 2023 than other innovative banking

1 Masofadan xizmat ko'rsatish tizimlari. O'zR Markaziy banki. <https://cbu.uz/oz/payment-systems/remote-banking-services/>

products (37.3%). This is not surprising, given the rapid development of digital services and the reduction in the number of visits to banks. According to some foreign scholars and experts, by the middle of the next decade the number of banks will be 40-50% less than now (Figure 2).

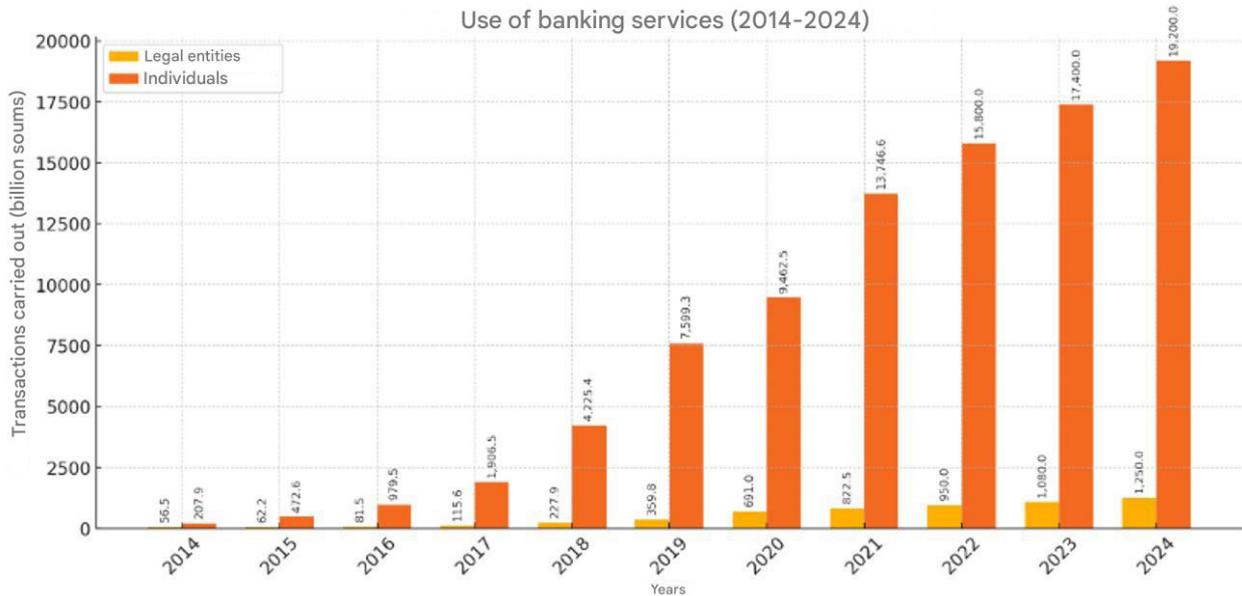


Figure 2. Number of users of remote banking services in Uzbekistan (by type), as of January 1, thousand²

Some innovations may concern several products. For example, bank cards are the most popular banking product. These include contactless payments (Apple Pay, Samsung Pay, Android Pay, etc.), bracelets and rings with payment functions, as well as unconventional types of bank cards. Services such as online lending are also considered innovative banking products today. These include lending to customers through mobile applications, accepting payments through ATMs, as well as the online registration and approval of mortgage loans, etc (Figure 3).

The number of installed payment terminals, ATMs, and information kiosks in Uzbekistan. September | outside. ed.

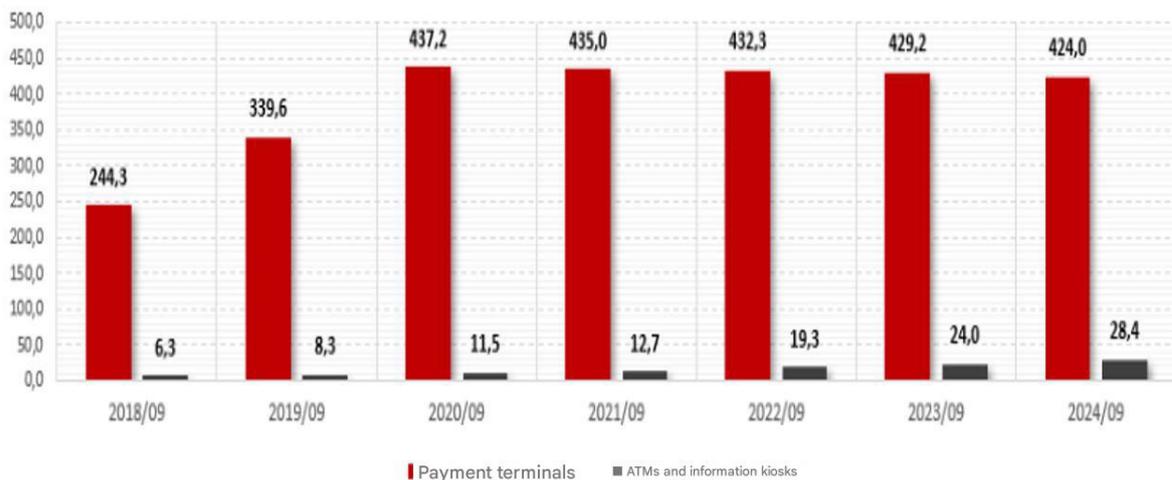


Figure 3. Number of installed payment terminals, units, as of September 1, 2024³

The availability of payment terminals among business entities and the skills required to use them effectively are steadily increasing. As a result, the number of terminals installed in retail and paid service outlets and banking infrastructure in the regions increased by 424,000 units as of September 1, 2024, which represents a 43% increase compared to September 1, 2018.

2 Masofadan xizmat ko'rsatish tizimlari. O'zR Markaziy banki. <https://cbu.uz/oz/payment-systems/remote-banking-services/>.

3 Masofadan xizmat ko'rsatish tizimlari. O'zR Markaziy banki. <https://cbu.uz/oz/payment-systems/remote-banking-services/>.



According to experts, the popularity of credit cards is expected to increase in the coming years compared to other banking products. The main reason for this is the growing need for borrowed funds in society, as it is easier and more convenient to obtain them using a credit card. Credit cards are bank cards that allow customers to pay for goods and services using bank funds. Traditionally, credit cards do not involve the customer's own funds.

It is worth mentioning the structure of payment and credit cards issued by banking institutions. An analysis of McKinsey statistics showed that worldwide, payment cards without overdrafts (87.0%) prevail in percentage terms over overdraft cards (16.3%).

CONCLUSIONS AND SUGGESTIONS

Financial innovations have the following characteristics: mandatory practical implementation in the financial market, the presence of a life cycle, the involvement of scientific results in economic activity both in the financial sector and in other related sectors, the influence of the market on the process of implementation and further development, as well as the non-application of patent law, which leads to the imitation of financial innovations by economic entities that did not participate in their development. Banking innovation is a separate component of financial innovations in the banking sector.

The main reason for this is that the innovative development of commercial banking has become a determining factor in the modern banking services market. Financial and banking innovations are interconnected in the context of the innovative development of the banking sector of the economy, and this fact determines the role of banking innovations in the innovation environment. The main reasons for the development of innovative banking products and services and their introduction in international and national financial markets are the formation of a new paradigm of economic innovative development, the introduction of a knowledge-based economy, banking innovations as part of modern economic innovations, banking business in the information technology environment, managing bank accounts via the Internet, and banking services as one of the most popular tools of economic integration.

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