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ВЕСТНИК

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В 2016 году для развития и улучшения качества жизни казахстанцев был создан частный Благотворительный фонд «Халык». За годы своей деятельности на реализацию благотворительных проектов в областях образования и науки, социальной защиты, культуры, здравоохранения и спорта, Фонд выделил более 45 миллиардов тенге.

Особое внимание Благотворительный фонд «Халык» уделяет образовательным программам, считая это направление одним из ключевых в своей деятельности. Оказывая поддержку отечественному образованию, Фонд вносит свой посильный вклад в развитие качественного образования в Казахстане. Тем самым способствуя росту числа людей, способных менять жизнь в стране к лучшему – профессионалов в различных сферах, потенциальных лидеров и «великих умов». Одной из значимых инициатив фонда «Халык» в образовательной сфере стал проект *Ozgeris powered by Halyk Fund* – первый в стране бизнес-инкубатор для учащихся 9-11 классов, который помогает развивать необходимые в современном мире предпринимательские навыки. Так, на содействие малому бизнесу школьников было выделено более 200 грантов. Для поддержки талантливых и мотивированных детей Фонд неоднократно выделял гранты на обучение в Международной школе «Мирас» и в *Astana IT University*, а также помог казахстанским школьникам принять участие в престижном конкурсе «*USTEM Robotics*» в США. Авторские работы в рамках проекта «Тәлімгер», которому Фонд оказал поддержку, легли в основу учебной программы, учебников и учебно-методических книг по предмету «Основы предпринимательства и бизнеса», преподаваемого в 10-11 классах казахстанских школ и колледжей.

Помимо помощи школьникам, учащимся колледжей и студентам Фонд считает важным внести свой вклад в повышение квалификации педагогов, совершенствование их знаний и навыков, поскольку именно они являются проводниками знаний будущих поколений казахстанцев. При поддержке Фонда «Халык» в южной столице был организован ежегодный городской конкурс педагогов «*Almaty Digital Ustaz*».

Важной инициативой стал реализуемый проект по обучению основам финансовой грамотности преподавателей из восьми областей Казахстана, что должно оказать существенное влияние на воспитание финансовой

грамотности и предпринимательского мышления у нового поколения граждан страны.

Необходимую помощь Фонд «Халык» оказывает и тем, кто особенно остро в ней нуждается. В рамках социальной защиты населения активно проводится работа по поддержке детей, оставшихся без родителей, детей и взрослых из социально уязвимых слоев населения, людей с ограниченными возможностями, а также обеспечению нуждающихся социальным жильем, строительству социально важных объектов, таких как детские сады, детские площадки и физкультурно-оздоровительные комплексы.

В копилку добрых дел Фонда «Халык» можно добавить оказание помощи детскому спорту, куда относится поддержка в развитии детского футбола и карате в нашей стране. Жизненно важную помощь Благотворительный фонд «Халык» оказал нашим соотечественникам во время недавней пандемии COVID-19. Тогда, в разгар тяжелой борьбы с коронавирусной инфекцией Фонд выделил свыше 11 миллиардов тенге на приобретение необходимого медицинского оборудования и дорогостоящих медицинских препаратов, автомобилей скорой медицинской помощи и средств защиты, адресную материальную помощь социально уязвимым слоям населения и денежные выплаты медицинским работникам.

В 2023 году наряду с другими проектами, нацеленными на повышение благосостояния казахстанских граждан Фонд решил уделить особое внимание науке, поскольку она является частью общественной культуры, а уровень ее развития определяет уровень развития государства.

Поддержка Фондом выпуска журналов Национальной Академии наук Республики Казахстан, которые входят в международные фонды Scopus и WoS и в которых публикуются статьи отечественных ученых, докторантов и магистрантов, а также научных сотрудников высших учебных заведений и научно-исследовательских институтов нашей страны является не менее значимым вкладом Фонда в развитие казахстанского общества.

С уважением, Благотворительный Фонд «Халык»!

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THE MAIN CHALLENGES OF DIGITAL TRANSFORMATION IN FINANCIAL SERVICES AND SOLUTIONS TO OVERCOME THEM

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Abstract. The purpose of this article is to study the process of digitizing financial services, identify its advantages and disadvantages, and analyze the development directions in the financial sector. The examination of the digitalization of the financial market includes a discussion of current changes in financial services and what may happen in the future. The implementation of the digitalization of financial services is currently an important and relevant issue. With the advancement of technology and the internet, many people conduct financial transactions online, using mobile applications and internet banking. The digitalization of financial services will ensure the accessibility of financial services for the population, simplify financial management processes, and save time. Additionally, information technologies help reduce the costs of financial organizations and increase operational efficiency. The digitalization of the financial market in the Republic of Kazakhstan is the process of implementing modern technologies, digital tools, and services to improve access to financial services, enhance operational efficiency, and increase security levels. The digitalization of the financial market in Kazakhstan has strategic importance for economic development, improving conditions for entrepreneurship, and raising the standard of living for citizens. It promotes the development of financial technologies (FinTech) and simplifies the interaction processes between market participants. The digitalization of the financial market in Kazakhstan not only fosters industry growth but also ensures convenience and security for financial service users. Therefore, the state actively supports and facilitates this process by creating favorable conditions for the development of innovations and digital technologies in the financial sector. Kazakhstan is dynamically entering the digital world. As online insurance services become increasingly popular, the state imposes stricter requirements. Digitalization has led to changes in various aspects of the financial market, the emergence of new financial products and tools, and new modifications in the provision of financial services, as well as changes in the structure of relationships between

entities. The introduction of new financial technologies has altered the institutional environment and intensified competition among market participants. This article identifies the list of mobile applications in the financial sector in Kazakhstan in 2023, outlines the usage metrics of mobile banking in Kazakhstan, and analyzes the dynamics of using government services in the Kaspi.kz application in 2023. Additionally, a SWOT analysis of the digitalization directions of financial services has been conducted.

Keywords: financial services, financial market, digitalization, transformation, in-surance, pension, bank, banking, mobile application, cybersecurity

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ҚАРЖЫЛЫҚ ҚЫЗМЕТТЕРДІ ЦИФРЛЫҚ ТРАНСФОРМАЦИЯСЫ БОЙЫНША НЕГІЗГІ МӘСЕЛЕЛЕР ЖӘНЕ ОНЫ ШЕШУ ЖОЛДАРЫ

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Аннотация. Мақаланың мақсаты – қаржылық қызметтерді цифрландыру процесін зерттеп, оның артықшылықтары мен кемшіліктерін анықтау, сондай-ақ қаржы саласындағы дамудың бағыттарын талдау. Қаржы нарығының цифрландыруын қарастыру қаржылық қызметтердің қазіргі уақыттағы өзгерістерін және болашақта қандай болуы мүмкін екенін талқылау. Қаржылық қызметтерді цифрландыруды жүзеге асыру қазіргі уақытта маңызды және өзекті мәселе болып отыр. Технологиялар мен интернеттің дамуымен көптеген адамдар мобильді қосымшалар мен интернет-банкінгіті қолдана отырып, қаржылық операцияларды онлайн режимде жүргізуде. Қаржылық қызметтерді цифрландыру халық үшін қаржылық қызметтерді қолжетімділігін қамтамасыз етуге, қаржыны басқару процестерін жеңілдетуге және уақытты үнемдеуге мүмкіндік береді. Сондай-ақ, ақпараттық-технологиялар қаржы ұйымдарының шығындарын азайтуға және жұмыс тиімділігін арттыруға көмектеседі. Қазақстан Республикасының қаржы нарығын цифрландыру — бұл қаржылық қызметтерге қолжетімділікті жақсарту, операциялардың тиімділігін арттыру және қауіпсіздік деңгейін арттыру үшін заманауи технологияларды, цифрлық құралдар мен сервистерді енгізу процесі. Қазақстанда қаржы нарығын цифрландыру экономиканы дамыту, кәсіпкерлік үшін жағдайларды жақсарту және азаматтардың өмір сүру деңгейін арттыру үшін стратегиялық маңызға ие. Ол қаржы технологияларын (FinTech) дамытуға және нарық қатысушылары арасындағы өзара

іс-қимыл процестерін жеңілдетуге ықпал етеді. Қазақстандағы қаржы нарығын цифрландыру саланың дамуына ықпал етіп қана қоймай, қаржы қызметтерін пайдаланушылар үшін ыңғайлылық пен қауіпсіздікті қамтамасыз етеді. Сондықтан мемлекет қаржы саласындағы инновациялар мен цифрлық технологияларды дамыту үшін қолайлы жағдайлар жасай отырып, осы процесті белсенді қолдайды және оған жәрдемдеседі. Қазақстан цифрлық әлемге қарқынды түрде кіруде. Онлайн-сақтандыру қызметтері қолданысқа ие болған сайын, мемлекет тарапынан қатаң талаптар да қойылуда. Цифрландыру қаржы нарығының аспектілеріне, жаңа қаржы өнімдері мен құралдарының пайда болуы, қаржылық қызметтерді ұсынудың жаңа өзгерістерге енуі, субъектілер арасындағы қатынастар құрылымының өзгеруіне әкелді. Жаңа қаржылық технологияларды енгізу институтционалдық ортаның өзгеруін және субъектілер арасындағы бәсекелестікті арттырды. Бұл мақалада ҚР бойынша 2023 жылы қаржы саласындағы мобильді қосымшалардың тізімі анықталды, мобильді банкінгтердің ҚР аумағында қолдану көрсеткіштері айқындалды, 2023 жыл бойынша Kaspi.kz қосымшасындағы мемлекеттік қызметтерді қолдану серпіні талданды. Сондай-ақ, қаржылық қызметтерді цифрландыру бағыттарына SWOT-талдау жасалды.

Түйін сөздер: қаржылық қызмет, қаржы нарығы, цифрландыру, трансформация, сақтандыру, зейнетақы, банк, банкінг, мобильді қосымша, киберқауіпсіздік

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ОСНОВНЫЕ ПРОБЛЕМЫ ЦИФРОВОЙ ТРАНСФОРМАЦИИ ФИНАНСОВЫХ УСЛУГ И ПУТИ ЕЕ РЕШЕНИЯ

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Аннотация. Цель статьи – изучить процесс цифровизации финансовых услуг, выявить его преимущества и недостатки, а также проанализировать направления развития в финансовой сфере. Рассмотрение цифровизации финансового рынка включает обсуждение текущих изменений в финансовых услугах и того, что может произойти в будущем. Реализация цифровизации финансовых услуг в настоящее время является важным и актуальным вопросом. С развитием технологий и интернета многие люди проводят финансовые операции в режиме онлайн, используя мобильные приложения и интернет-банкинг. Цифровизация финансовых услуг позволит обеспечить доступность финансовых услуг для населения, упростить процессы управления финансами и сэкономить время. Также информационные

технологии помогают снизить затраты финансовых организаций и повысить эффективность работы. Цифровизация финансового рынка Республики Казахстан — это процесс внедрения современных технологий, цифровых инструментов и сервисов для улучшения доступа к финансовым услугам, повышения эффективности операций и повышения уровня безопасности. Цифровизация финансового рынка в Казахстане имеет стратегическое значение для развития экономики, улучшения условий для предпринимательства и повышения уровня жизни граждан. Она способствует развитию финансовых технологий (FinTech) и упрощению процессов взаимодействия между участниками рынка. Цифровизация финансового рынка в Казахстане не только способствует развитию отрасли, но и обеспечивает удобство и безопасность для пользователей финансовых услуг. Поэтому государство активно поддерживает и содействует этому процессу, создавая благоприятные условия для развития инноваций и цифровых технологий в финансовой сфере. Казахстан динамично входит в цифровой мир. По мере того, как услуги онлайн-страхования становятся все более популярными, со стороны государства предъявляются более строгие требования. Цифровизация привела к изменениям в аспектах финансового рынка, появлению новых финансовых продуктов и инструментов, вступлению в новые изменения в предоставлении финансовых услуг, изменению структуры отношений между субъектами. Внедрение новых финансовых технологий привело к изменению институциональной среды и усилению конкуренции между субъектами. В данной статье определен перечень мобильных приложений в сфере финансов по РК в 2023 году, определены показатели применения мобильных банкингов на территории РК, в 2023 году проанализирована динамика использования государственных услуг в приложении Kaspi.kz. Также проведен SWOT-анализ направлений цифровизации финансовых услуг.

Ключевые слова: финансовые услуги, финансовый рынок, цифровизация, трансформация, страхование, пенсия, банк, банкинг, мобильное приложение, кибербезопасность

Introduction

Financial services-services provided by professional participants in the financial market, including securities, insurance, accumulative pension fund, Bank and organizations engaged in banking operations, through a license in accordance with the legislation of the Republic of Kazakhstan (The Law of the Republic of Kazakhstan, 2003).

The main aspects of the digitalization of the financial market in Kazakhstan are: the introduction of digital payment systems and electronic wallets for the convenience of conducting financial transactions; the development of online banking and mobile applications for financial management; the introduction of blockchain technologies to ensure security and transparency of financial transactions; the development of digital solutions for investment management and asset accounting; improving access to financial services through digital channels for various categories of the population (Korobeynikova et al., 2020).

The main part. Changes in the financial system in Kazakhstan in recent years:

- acceleration of digitalization. The world has developed a new approach to the development of the economy, the implementation of systematic and fast provision of services through digital transformation. The Digital Kazakhstan program has emerged from the state. The main goal of this program is to accelerate the development of the economy of the Republic of Kazakhstan and improve the quality of life of the population through the use of digital technologies in the medium term, as well as create conditions for ensuring the development of a new digital economy of the state in the long term;

- ecosystem transformation;

- the arrival of new participants in the capital market. Today, due to the transition to digitalization, the mass presence of online trading has led to the emergence of new par-

ticipants (Sokolinskaya et al., 2020).

The development of platforms and their presence in force has led to a change in the demand of financial market consumers. With the development of the Internet, Financial Services have also become more accessible to the population. The digitalization of Financial Services has led to this competition and development without standing still. Organizations that provide only financial services, transforming their services, tend to forget about attracting new customers. Financial organizations are creating a new ecosystem (Derr et al., 2020).

Digital transformation of financial services is the development of ecosystems, encompassing services or products from the financial and non-financial industries, from the traditional format of providing financial services. Digitalization of financial services is the initial level of this digital transformation. In terms of banking services, the basis of digitalization is the mobile applications of second-tier banks in the country. Well, digital transformation is a separate, deep science of developing all systems, and not just a mobile application (Vorontsovsky, 2020).

Digitalization of the financial market will ensure transparency in the work of state and financial organizations, their control. It should be noted that the digitalization subsystem is closely interconnected. The availability of financial services also leads to an increase in consumer needs, and the rapid and convenient use of financial services gives a desire to use consumer services (Avdeeva, 2017).

The digitalization process affects all segments of the financial market, allows for some changes in the specifics of the functioning of financial market participants. This leads to the fact that professional participants in the financial market, providing financial services to consumers, change their strategy, introduce progressive methods of providing services, as well as financial technologies. Second-tier banks influence the digitalization of the financial market, firstly, it occupies a large place in the financial system, secondly, it participates in the redistribution of financial resources in the financial market, thirdly, it is legal and carries out financial transactions in order to meet the needs of individuals (Asanov, 2016).

Materials and methods

First of all, the use of digital technologies will reduce the turnover of paper documents, which will simplify the provision of financial services and reduce work. Another important direction in the context of digitalization is the use of the scoring method to facilitate the functioning of the banking system and the credit market. Using this method, it is possible to quickly accept the response of loan applications, as well as reduce the time of consumption of financial services by consumers and reduce the need to establish a responsible person for the financial organization. This will reduce the employees of the financial organization and reduce its costs. One of the features of the use of financial technologies makes it possible for financial organizations to provide customers with individual conditions that will be favorable (Pertseva, 2018).

An important trend in the development of digitalization of the banking system is the round-the-clock provision of banking operations, online consultations on all issues, questions, as well as remote customer service. All this work involves the ability of the client to solve their questions through online consultation, through voice assistants (Nurgazina et al., 2017).

The impact of digitalization of the financial market is not only on the banking sector, but also on the insurance market. Digitalization in the insurance market concerns not only remote provision of insurance services, but also allows you to conduct various expertises and calculate costs, regulate insurance cases. This reduces the costs of insurance organizations and saves time (Digitalization: History, Prospects, Digital economies of Russia and the world, 2021).

The operator of the unified insurance database, the state credit bureau, got access

to the state database. This allows you to compare the data entered by customers when concluding insurance contracts online. If in 2019 online insurance among individuals accounted for 3–5 %, then in 2023 it exceeded 25 %. Also, a positive factor is the release of the working time of the internal affairs bodies for other important functions.

In 2023, insurance payments through dtp.kz were 1,346, and the amount was 454,782,195 tenge. The digital platform dtp.kz is operating in the insurance market, which allows you to receive insurance premiums online in a short period of time. Every year, more than 200,000 cars are involved in accidents in the country, but 98,000 of them receive insurance payments. The average is over 175 billion tenge per year. The average time for receiving insurance payments in Kazakhstan is 90 days. But insurance payments can be received within 5–7 days thanks to the dtp.kz platform. Through this digital platform, vehicle owners submit an online application, take a photo of the damaged vehicle and attach the necessary documents for the application. This allows to save time of policyholders. In developed countries, this tool is used for quick settlement of small damages, primarily for clearing roads. While waiting for the traffic police to arrive, traffic jams will be created in areas where car accidents have occurred.

Digitization of pension services is one of the most important areas of the pension fund. The pension fund for all types of contributions is opened automatically after the first contribution is received through the conglomeration of the personal pension account with digital systems. Identification of an individual is carried out on the basis of personal data specified in the electronic format of the payment order during the transfer of the pension contribution, and the NPF receives information about the data of the necessary documents from the information systems of state bodies. Also, obtaining information about the status of personal pension accounts is a service that is in demand. In the first half of 2023, 8.3 million certificates on the state of individual pension accounts of the National Pension Fund were issued, 97.3 % of which are in digital format.

By 2023, the number of services provided by NPF is 8.97 million, including 6.11 million in electronic format, 2.16 million in automatic format, and 468 thousand in traditional format. You can view the remote services of the State Public Service Commission using the following technologies: from the eGov.kz portal, website or mobile application; The official site of the NPF - on the site, in addition to personal information, you can familiarize yourself with all activities of the fund and management of pension funds; mobile application — the application allows depositors to familiarize themselves with the state of their pension accounts, as well as the fund's services; The mobile application of the Bank of Ukraine is one of the applications in demand in the financial sector of the Republic of Kazakhstan. More than 5 million downloads of this app on Google Play; you can also get pension and information services through ENPF_bot Telegram-bot. In addition, consulting services can be obtained from popular messengers: Whatsapp, Telegram, Viber, Messenger, and useful information can be obtained from social networks.

Thus, the services of the fund are fully automated and transferred to an electronic format, and it is possible to get the necessary information in a few minutes. In 2023, NPF provided almost 9 million services. 6.11 million of them were carried out electronically, and 468 thousand operations were carried out in the traditional format. As we can see, 92 % of the provided services were conducted online.

From Table 1, as of 2023, based on Google Play data, the most used mobile application in the field of finance is Kaspi.kz. Halyk Bank mobile application is in second place. In terms of digitization in the financial sector, the banking sector is developing well in the country. Mobile applications of second-tier banks of the Republic of Kazakhstan are in the top five. And, in the sixth place is the supplement of the Unified Savings Pension Fund. Digital transformation of financial organizations of the Republic of Kazakhstan is increasing day by day to a new level. As a new method of digital transformation, financial organizations in the country are introducing Agile methodology.

Table 1 - List of mobile applications in the financial sector in Kazakhstan in 2023

№	Application name	Publisher
1	Kaspi.kz	Kaspi Bank
2	Halyk	JCS Halyk Bank
3	Home Credit Bank	Home Credit Bank Kazakhstan
4	Jusan	First Heartland Jusan Bank JCS
5	Forte	Forte Bank
6	NPF	«BZZK» JSC
7	BCC.KZ	JSC «Bank CenterCredit»
8	TEZ BOL credit, loans	Tez Bol
9	Simply	Kazeuromobile
10	Otbasy bank	«Otbasy Bank» JSC
Note - GooglePlay information is mainly compiled by the author		

Agile is a set of practices that allow you to respond promptly and flexibly to changes during project development. Translated from English, “agile” means prompt. Agile is not a guide to how work processes should behave correctly, but rather a set of strategies. Such strategies allow the team to successfully optimize the product and receive feedback from the customer. Agile is, first of all, the speed of response of a team of specialists to the wishes of the client and the transparent process of project implementation. Unlike other methodologies, agile implies parallel software development and testing. The development of a new product begins with the description of the result at the discretion of the customer. Then the stage of project planning, design and obtaining the final result begins (Yudina, 2016).

Advantages of Agile methodology: prompt search for shortcomings in the project and their elimination; changes in the project are always flexible and fast; timely implementation of the product; constant interaction of the customer and users; the scale of the project can expand at any stage of development; the highest level of satisfaction of customer needs; coordinated work of the team. Most often, Agile is used in software development. It is most often used in the banking sector, in the insurance sector. Based on Agile, the following methods are included: Kanban, Scrum, Lean, XP. In Kazakhstan, financial organizations include Kanban and Scrum methods in their systems.

Scrum is an approach that involves dividing the work process on a project into cycles. Each cycle lasts an equally short time. According to this method, the composition of the project participants does not exceed 10 people. The group includes developers, a Scrum Master, and a curator. A Scrum Master is a person responsible for actions within a team that monitors the application of scrum principles and removes obstacles to completing a project. Daily activities of the Scrum methodology working group: discussion of current solutions, planning and dissemination of new tasks. The main characteristics of the Scrum principle: software development from scratch, distribution of the role of participants within the team, division of specialists into groups (Yakubenko, 2019).

Kanban is a visualization of all the details of the process. Show all views of the project by all team members. Kanban allows you to track which stages of the project were risky and the need for real help from other employees. According to this principle, simple boards, stickers and CRM systems for visualizing tasks are required. The main characteristics of project management by the Kanban method: there are no conventional gliders; the initial product is only updated, but not created; all team participants are narrow-profile and their activities are divided equally. All changes to a project of this type are made in stages

(Kaisheng, 2022).

The difference between Kanban and Scrum tools. Kanban does not imply full compliance with Agile values. In this approach, there is no principle of self-organization, but attention is paid to the result and openness of all stages of development. Implementation occurs gradually, without significant changes in the current processes of the company. Business processes not only become faster, but also significantly improve. The Kanban model is used in software development, product development, production, and general operating activities of the business (Kosarev, 2020).

List of projects of the Agile methodology of second-tier banks in the Republic of Kazakhstan under development in 2023. It is the banking sector that coordinates this methodology in the country in the financial sector. According to the schedule, 10 new projects are indicated; their readiness at the moment is indicated. The very first project is “Daily Banking”. Daily Banking includes daily operations of bank customers, i.e. payments, transfers, payment of tax and penalty bills, management of investment products. 78% of this project has been prepared by 2023, and the budget is 47 %. Since 2021, it has grown by 28 %.

CustEx basically support a specific environment through employees or communication. In the banking sector, this project is the creation of a customer base by supporting the consumer in the sale of banking products. The level of development of the project is 82 %, the budget coverage is 4 %. And the rate of change is 52 %, in the end, since 2021, 50 % of this project has undergone new changes. Customer Value Management means managing customer values. That is, to determine the value of banking products for the consumer. The finished level of the project is 54 %, the budget is not covered, and the change in 2023 is 70 %. The digital data platform is a platform development project for storing and managing all data in the bank. It is ready by 81 %, the budget coverage is 39 %, and changes are made by 67 %.

Biometrics is to ensure that the project is implemented in accordance with the legislative requirements of the Republic of Kazakhstan, along with the organization of measures to reduce operational risks in banks. This project has reached 50 % completion, budget coverage – 2 %. Second-tier banks are exposed to many risks and their prevention allows to reduce losses in the bank. That is why risk prevention plays an important role in the work of the bank. The AI Risk Management project collects all risks, investigates them and organizes preventive measures. Robotic Process Automation - automation of processes using a robot program. Such a virtual employee analyzes mail, enters data into tables, and processes payments, just like an office worker.

Results

As of 2023, we can note that the number of non-cash transactions in the country is much higher than in cash transactions. The number of non-cash transactions is 10,268,193.4, while the number of cash transactions is 220,528.1. The region with the largest number of operations in the Republic of Kazakhstan is Almaty, non-cash – 4,692,527.4 operations, cash-44,752.7 operations. The second place in terms of the volume of operations is occupied by Astana. Non-cash transactions are 1,033,700.4, while cash transactions are 19,785. 1. The third place is occupied by the city of Shymkent. The fourth place in terms of volume is occupied by Karaganda region, non-cash operations – 383,235, cash operations-16,402.3. Mangystau region is on the fifth place with 305,263,3 non-cash operations. For cash transactions – Zhambyl region 10,981.3 is indicated for transactions carried out.

Neobank is a banking provider that offers its services only remotely. A new direction in the banking sector appeared worldwide in Europe in 2015. Neobanks do not use branches for customer service, they offer services only through gadgets. There are 2 types of such banks: with a financial license and offering financial services independently; cooperates directly with traditional banks to provide financial services remotely.

The new model offers its clients a simple and affordable way to manage their

funds. Such banks do not give loans without taking risks. Modern technologies are the main source of their expenses. Neobanks' income is commissions from transactions, subscriptions to premium accounts and commissions from third-party services. In 2021, the number of neobanks in the world reached 250 organizations. Based on statistical data, Chime (USA) - 14.5 billion dollars, Nubank (Brazil) - 10 billion dollars, Tinkoff (Russia) - 6.5 billion dollars are among the top three neobanks in the world.

Currently, neobanks in Kazakhstan: Simply is an electronic payment system for convenient online payments. In 2021, the first neobank appeared in Kazakhstan under the name of Beeline company Simply. The new product provides digital financial services, making transfers and making payments using the client's phone number. By 2023, 1,605,000 Kazakhstani people have registered for the new neobank application. Trading with the card is done with 93 cities, the most distant one is Chile. Among consumers, 69 % are men, 31% are women, and the average age of users is 32 years. Paid cashbacks reached 1,918,571,531. And the conducted operations amount to 44,705,000. The total amount was 282,740,000,000 tenge. Currently, the number of users of Simply neobank is increasing day by day. Since this industry is new in the country, almost 90% of the population has not yet learned about it. Nevertheless, it performs its services well.

Mobile banking is one of the most important means of financial services in Kazakhstan today. In recent years, this industry has been actively developing due to the improvement of technology and the convenience and accessibility of financial services for users. Mobile applications of banks in the Republic of Kazakhstan have become an integral part of people's daily lives, offering a wide range of services from paying bills and transfers to investing and monitoring financial conditions. Second-tier banks actively focus on the development and improvement of applications, making them convenient, secure and functional (Table 2).

Table 2 - Indications for the use of mobile banking in the territory of the Republic of Kazakhstan

Banks	%
Kaspi.kz	87.8
Halyk Homebank	48.2
Otbasy bank	9.8
Jusan	8.2
Home Credit Bank Kazakhstan	6.8
B-Bank (Bereke Bank)	4.2
Forte	4.2
Smartbank	2.9
Note - compiled by the author according to the information of the Statistics Bureau of the Republic of Kazakhstan	

Mobile banking in Kazakhstan is used by 95.4 % of the population. High demand among the population for applications among second-tier banks Kaspi.kz - 87.8 %, especially used by persons working in the field of Finance, Insurance and Recreation. Kaspi.kz the application is often used by urban residents 89.2 %, the overwhelming majority of users of the Halyk Homebank application is higher among rural residents 53.2% . Halyk Homebank is the largest bank in the country with an asset of 14.3 trillion tenge as of 2023, although 48.2 % of banks are in demand for the application.

According to 2023, among mobile banking users, 98.6 % of the active use of the application among young people aged 18–29 years. The share of persons aged 30–45 years is 97.2 %. 95.9 % of citizens aged 46–60 years, and 82.1 % of persons over 61 years of age show the use of various banking applications, as shown in Figure 1. Banks that are well

developed in terms of digital technologies include Kaspi Bank, Halyk Bank, Forte Bank, First Heartland Jusan Bank.

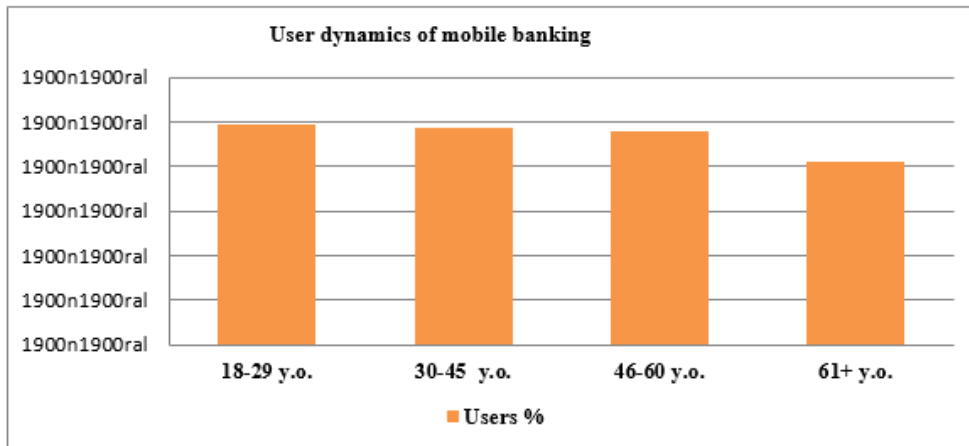


Figure 1 - Dynamics of mobile banking users in the Republic of Kazakhstan

Note - Compiled by the Author according to the Bureau of statistics of the Republic of Kazakhstan

Marketplace “Kaspi Bank” JSC — “Kaspi.kz” is a leader in e-commerce and a large online trading platform. As a fintech, the bank hosts companies that have no equivalent in Kazakhstan, recently successfully listed on the London Stock Exchange and became one of the most valuable Kazakhstani companies. Kaspi Bank presents itself as a SuperApp, which means offering dozens of services in one application. Payment services are the first and main activity of the bank, within which the bank offers 14 services: transfers by phone number and card to card, payments by QR code and others. In the second quarter of 2021, revenue from payments increased by 92 % to \$480 million, and profit increased by 121 % to \$280 million.

Kaspi.kz application is one of the largest mobile applications in Kazakhstan. In 2021, the number of sellers on the platform increased by 130 % to 60,000. At the same time, the number of clients was 3.7 million, and the net profit increased by 267 % to 2,216 million dollars. FinTech offers consumer lending services. In the second quarter of 2021, in this direction, it increased by 456 % to 2.3 billion dollars, including revenue - 1.2 billion dollars, profit reached 440 million dollars. Other services - Kaspi.kz also works in the field of tourism, public services. In August 2020, the bank launched Kaspi Travel - online ticket booking, hotel reservation services. The mobile application allows you to receive a pension, register a car, pay taxes and fines, and other public services. Table 3 in 2023 Kaspi.kz the dynamics of the use of public services in the appendix is given.

Table 3 - In 2023 Kaspi.kz dynamics of the use of public services in the appendix

Access to the Department of public services	Registered cars	Taxes paid
8,5 million	371 thousand	561 billion
Users of digital documents	Registered Sole Proprietors	Citizens of Kazakhstan who have obtained personal driving license
4,5 million	153 thousand	22 thousand

Note – compiled by the author based on the information in the Kaspi.kz application		
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Currently, the digitalization of financial services plays an important role in our lives. With the development of technology and the internet, many financial transactions can be done online without leaving your home or office. However, along with the convenience and accessibility of digitalization of financial services, problems also arise.

One of the problems faced in the digitalization of financial activities is cybersecurity. It increases the risk of cyber attacks due to the fact that all transactions and data in the financial market are carried out online. Banks and other financial institutions must take additional protective measures to protect their customers' personal data and financial accounts. The subjects of the financial market of the Republic of Kazakhstan in 2023 were identified cyber threats and potential vulnerabilities: 91 warnings about threats and 67 warnings about information security; 64 cyber threats were registered in financial organizations, including 42 DDos attacks. Also in 2023, the Ministry of Culture and information of the Republic of Kazakhstan provided 24 data on internet fraud, and in 2022–59.

Data confidentiality is one of the most important and pressing issues in the digitalization of the financial market. In the context of the increasingly intensive digitalization of financial transactions and the growth of the volume of digital data, ensuring the protection of the confidentiality of personal information of customers is becoming a key issue. Smoothing the fine line between the convenience of digital financial services and the protection of personal data is one of the most important tasks for financial institutions and regulators.

Initially, it is worth paying attention to the collection and storage of data. Financial organizations collect and store large amounts of information about their customers — from personal data and banking transactions to financial histories and consumption preferences. However, when storing and processing such information, there is a risk that it will leak out. To minimize these risks, it is necessary to introduce modern data encryption systems, multi-level authentication and strict policies for accessing information.

The second aspect is data transfer. In the process of implementing online transactions or interaction with financial applications, users transmit their personal data over the internet, which creates additional risks for attackers to intercept them. To ensure data transfer security, it is necessary to use protected communication protocols such as SSL/TLS, as well as ensure reliable user authentication and data theft protection mechanisms.

The third aspect is data access control. One of the most pressing problems in the field of data privacy is insufficient management of access to personal information within financial organizations. Internal threats, such as illegal access by employees to sensitive data or information leakage due to unauthorized access, can pose a serious threat to customers' privacy. To reduce this risk, it is necessary to implement a strict data access policy, Access Control and audit mechanisms, as well as provide training for employees on information security issues.

The fourth aspect is compliance with data protection regulations and laws. Financial institutions are required to comply with strict regulations and data protection laws, such as the GDPR in the European Union or the CCPA in California. Violation of these laws can lead to heavy fines and loss of customer trust. Therefore, financial institutions must invest in accordance with the legislation, ensuring the safety and protection of their customers' data (Mamutova et al., 2023).

Discussion

In general, the problem of data confidentiality in the digitalization of the financial market requires an integrated approach, which includes technical, organizational and legal measures to ensure the safety and confidentiality of personal information of customers. A successful solution to this problem will contribute to the formation of users' confidence in

digital financial services and will contribute to the further development of digitalization of the financial market. Also, in the context of digitalization of financial services, technological risks represent serious challenges that can significantly affect the stability and security of financial systems.

Information security vulnerabilities. Digital financial systems are exposed to various threats, including malware, hacker attacks, and other types of cyber threats. Information security vulnerabilities can lead to leaks of confidential information, theft of funds or even the destruction of the entire financial market. Technical problems and system failure. System failures can occur for a variety of reasons, including software errors, hardware failures, incorrect configuration, or unexpected loads on the system. Such events can lead to unavailability of services, data loss or even financial losses for customers and companies.

Insufficient testing of new technologies. The introduction of new technologies, such as blockchain or artificial intelligence, can be associated with risks if these technologies are not thoroughly tested for security, reliability and regulatory compliance. Insufficient testing can lead to unforeseen problems and negative consequences for financial systems. **Regulation of risks.** Changes in legislation and regulation can create uncertainty and risks for financial institutions, especially in the context of the rapid development of technology and the emergence of new business models.

Dependence on third-party suppliers. Many financial companies depend on third-party technology and service providers, such as cloud providers or software developers. This carries the risk of data inaccessibility or security breaches in the event of problems with third-party vendors. To reduce technological risks in the digitalization of the financial market, it is necessary to take measures to ensure a high level of Information Security, carefully test new technologies before their implementation, develop business continuity plans for managing crisis situations, and strengthen risk management in all aspects of digitalization of financial systems. Also, the digitization of financial services can lead to the exclusion of certain segments of the population who do not have access to the internet or do not have sufficient skills for online operations. This can increase social inequality and create barriers to access to financial services.

Monopolization of the market. Large financial technology organizations can take advantage of their dominant position in the market to eliminate competitors and limit the choice for consumers. **Limit competition.** The monopoly situation in the market can hinder the emergence of new players and innovative solutions. Large companies can use their resources and influence to limit competitors' access to the market or create barriers to entry into it, which reduces competition and inhibits the development of new ideas.

Restriction of choice for consumers. Monopoly companies can set market conditions and limit consumer choices. This can lead to a limited choice of products and services, as well as an increase in prices for consumers, since the lack of competition does not contribute to a decrease in prices and an improvement in the quality of services. **Decline in innovation.** Monopoly companies may have little incentive to innovate because they do not have to compete with other players in the market. This can lead to a slowdown in the pace of development in the financial sector and the introduction of new technologies, which can negatively affect consumers and society as a whole.

Threat to market stability. The monopoly situation in the market can threaten its stability and security. **Violation of consumer rights.** Monopoly companies can abuse their position in the market and violate consumer rights, for example, illegal collection and use of personal data, setting opaque prices or restricting the choice of products and services (Gumar et al., 2023).

In general, despite all the advantages of digitalization of financial services, it is necessary to take into account and solve the problems that may arise in the process of switching to an online format. It is important to develop cybersecurity, provide alternative ways to communicate with customers and ensure equal access to all financial services for

all segments of the population. Table 4 presents a Swot-analysis of the digitalization of financial services.

Table 4. SWOT analysis of the digitalization of financial services

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Ability to work remotely; 2. Affordable and free market, ease of payments; 3. Any sector of the economy is available in this area; 4. Performance level is higher than available; 5. Reducing the cost; 6. Paper document management can be completely excluded and electronic document management can be introduced 	<ol style="list-style-type: none"> 1. Technological dependence; 2.High entry-level costs; 3. Insecurity; 4. Occurrence of security problems
Opportunities	Threats
<ol style="list-style-type: none"> 1. Reduction of transaction processing time. 2. Increasing the availability of financial services for more users. 3. To ensure better coordination among financial market entities to combat fraud. 4. Creating large ecosystems of developed banks to accelerate the introduction of new products to the market in order to maintain a favorable level of competition. 5. Improving the quality of financial services. 	<ol style="list-style-type: none"> 1. Risk of new competitors; 2. Growth in sales of substitute goods; 3. Cybersecurity; 4. Economic instability.
Note - compiled by the author	

According to Table 4, if we look at the results of the swot analysis, we can see that remote servicing of the strengths of financial services saves time for both the client and the service organization. Availability of all financial services at the right time. The good thing about digitalization for financial organizations is that it avoids many costs. It is known that for 10 years the number of bank branches has been much larger, and currently the number of branches is also decreasing due to the fact that most of the services are carried out online. Any thing also has its weaknesses, so the main weak point in digitalization is cybersecurity.

In the context of the rapid pace of digitalization of financial markets around the world, Kazakhstan is striving to actively develop its digital infrastructure and modernize the financial sector. Achieving this goal requires the adoption of a number of measures and reforms aimed at improving the availability, efficiency and security of digital financial services.

Conclusion

The digital transformation of the financial market has become an integral part of the modern world, forming new standards in the provision and use of financial services. This process includes many changes, including the transition from traditional banking operations to online platforms, the automation of financial processes, the introduction of digital payment systems and the development of new forms of financing, such as cryptocurrencies and blockchain technologies. Digitalization has a good impact on the financial market, but of course it also has certain disadvantages. Digitalization of the financial market in our country has taken place since the 2000 s. In the very first online banking, which came out at this time and offered its services. But the projects of that time did not attract consumers, so

since 2017, the banking sector in our country has completely switched to modernization.

In conclusion, it is worth highlighting several main aspects and important consequences of the digital transformation of the financial market:

- increase the availability and convenience. Digital technologies make financial services more accessible and convenient for consumers, allowing them to work online at any time and anywhere. This is especially important for residents of remote regions and people who have previously had difficulties with access to traditional banking services;

- encourage innovation. Digital transformation contributes to the emergence of new players in the market, the development of fintech startups and the introduction of innovative solutions. This, in turn, leads to the diversity and improvement of financial products and services, and also contributes to the growth of the economy and the creation of new jobs;

- increase efficiency and productivity. The introduction of digital technologies in the financial sector makes it possible to automate and optimize processes, improving the efficiency and quality of customer service. This reduces service and management costs, increases the profitability and competitiveness of companies;

- increased competition and choice. Digital transformation expands the possibilities of competition in the market, which leads to increased choice for consumers and encourages companies to continuously improve their products and services. This contributes to improving the quality of service, reducing prices and innovation in the industry;

- difficulties and risks. Despite the benefits, digital transformation also involves a number of calls and risks. These include cybersecurity threats, loss of personal data, as well as the threat of market monopolization and loss of consumer trust.

In general, the digital transformation of the financial market is a complex and multifaceted process that requires careful consideration by regulators, companies and consumers. To make the digital financial market sustainable, accessible and effective for all its participants, it is important to strike a balance between innovation and security. Consistent implementation of the right strategies and regulatory mechanisms can contribute to the growth of the economy, improve financial inclusion, and improve people's quality of life.

Recommendations for the development of digital transformation of financial services: development of digital infrastructure; improvement of the legal and regulatory environment; support and stimulation of innovations; digital education and training of specialists; increasing financial inclusion; strengthening cybersecurity; international experience and partnership; introduction of new technologies. These proposals will effectively lead the digital transformation of financial services, ensure the stability and security of the financial market, and provide accessibility for individuals and legal entities.

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МАЗМҰНЫ

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