



Higher School of Economics

**Assel Karbozova, Dinara Yestimessova,
Nazym Kadyr, Madi Kylyshbek, Alan Nazarov**

**How cashless operations integrated into Consumer lifestyle in
Kazakhstan as a new habit**

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Supervisor: Azamat Gimranov, MBA, LLM

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Abstract

The Kazakhstani banking and payment market is rapidly changing towards digitalization and reorientation from cash to non-cash transactions, which is dictated by the general trends of globalization and the elimination of the boundaries of international commercial interactions. The study pays attention to modern problems, prospects and trends in the development of the market for non-cash payments, as one of the priority areas for the development of the Kazakhstani economy. Particular emphasis is placed on the analysis of modern factors and drivers of the development of the digital non-cash economy over the past 3 years, when the dynamics of the market for non-cash payments is developing progressively.

The study presents the results of our own statistical analysis, proving a change in the strategy of consumer behavior in the context of the active development of the dynamics of non-cash payments.

Introduction

Digitalization is one of the current trends in economic development. The main driver and factor of the digital transformation of the economy is globalization. The processes of globalization and digitalization have affected almost all spheres of human life. IN

As a result, new markets, new forms of communication, new approaches to the organization and management of the production of goods and the provision of services have emerged. Active digitalization has led to the formation of a digital profile of a person. A modern person can perform a huge number of financial and economic transactions in a digital environment. Such transactions are based on non-cash payments as a new reality of the economy.

Kazakhstan was one of the first CIS states that actively began to introduce the practice of cashless payments. For these purposes, back in 2013, fundamental transformations of the banking and payment system of Kazakhstan began. However, for the duration of the first 5 years, non-cash payments were not very popular among the population. The Kazakhstanis preferred fiat money. Since 2019, new opportunities for online platforms have somewhat stepped up the dynamics of the development of a cashless economy. 2020 became a new test for the banking sector of Kazakhstan and the whole world, when the population, faced with the new realities of shopping in a pandemic, forcedly switched to non-cash payments. As a result, literally over the past 2 years, the majority of payments in Kazakhstan have become non-cash, and this trend continues to develop.

Research design

Global trends indicate that the developed economies are high-tech powers that have been directing their economies into the channel of cashless payments for more than a decade and a half. These states include the United States, Japan, the developed states of Western Europe, the Middle East and Southeast Asia. All over the world, payment cards have become a universal means of carrying out non-cash retail transactions, thus eliminating the need to exchange cash for local currency. Kazakhstan, as a progressing state, strives for a high level of economic and financial development, therefore, the transition of the financial sector from cash to cashless regime is the main priority of the state in the long term. This is also due to the fact that the high share of cash limits the growth of the Kazakh economy, as a result of which the state loses about 3% of GDP per year. Therefore, within the framework of this study, attention is paid to the analysis of statistical data on non-cash payments in Kazakhstan over the past 3-5 years in order to determine the main drivers and incentives for the transition from fiat money to non-cash payment transactions.

Research question: How did cashless payments become a new buying habit of Kazakhstanis in recent years?

In particular within the framework of our research, we pay attention to the main factors and drivers of the change in the purchasing behavior of Kazakhstanis.

Research hypothesis: the possibility of making fast non-cash payments had a significant impact on the lifestyle of consumers in Kazakhstan in favor of an increase in the number of online purchases.

Methodology

In our study, we relied on statistics prepared by several analytical information centers in Kazakhstan (National Bank, Association of Financiers of Kazakhstan), which served as the basis for our study. Based on statistical data, we analyzed the main drivers of influence on the development of the cashless economy in Kazakhstan.

Our research also used general methods of collecting, organizing and processing material to show how non-cash payments have become the new norm of Kazakhstanis purchasing behavior.

In quantitative part, a personal survey of respondents was prepared and conducted in order to find out their attitude to non-cash payments. The survey is a relevant method for conducting quantitative research in order to determine the attitude of respondents to certain issues. The results of our research are intended to supplement and verify the results of official statistics of state authorities of the Republic of Kazakhstan. The research results are analyzed and summarized in the “Discussion and Analysis” section.

In searching for answers from experts, there was applied also qualitative research method. This approach is especially useful in discovering the meaning that people give to events that they experience. Other specific information is described further below and included open-ended interviewing, data collection and data analysis procedures.

Survey questions

- 1) Indicate your gender.
- 2) Indicate your age.
- 3) Where do you live at the moment?
- 4) Indicate your kind of activity?
- 5) What is your income level?
- 6) Do you often face the lack of cashless payments?
- 7) How often do you use cashless payments?
- 8) What problems do you face during cashless payments?
- 9) Which bank card do you use?
- 10) When choosing a card, are you familiar with the tariffs and conditions in the agreement?
- 11) What platform do you use for cashless payments?
- 12) Rate from 1 to 10, how much does cashless payments make your life easier?

Literature review

The system of non-cash payments is becoming more and more relevant and acquires new facets with the development of new payment acquiring services. According to A.V. Harutyunyan. “The state of the modern retail payment system is characterized by a trend towards a gradual reduction in the share of cash and an increase in the share of non-cash payments” (Arutyunyan, 2020). Cashless payments are a part of the economy that ensures the transfer of currency directly from the account of the enterprise, which pays to the account of the enterprise that receives the funds. In these calculations, the bank acts as a financial intermediary. The services it provides to its clients - organizations, entrepreneurs and individuals - are an important aspect of the modern economic system. The procedure for cashless payments is regulated by law. Carrying out settlement operations through a bank reduces the need for cash, this contributes to the concentration in the bank of free funds for lending, ensures their safety and more efficient use, this in turn optimizes and accelerates the money turnover of the state as a whole.

In a modern market economy payment systems play an important role in ensuring the effective functioning of both the financial and monetary system. The globalization of world economic relations and the internationalization of payments require faster transfer of funds and the rapid growth in the number of payments necessitates, the use of advanced payment technologies and innovative payment instruments in payment systems. However, in modern conditions the improvement of payment systems goes not along the path of using new technologies based on advances in computer technology, telecommunications facilities and computer networks, but also the development and implementation of new architectural concepts, methods for optimizing the calculation process, ways to improve the reliability and continuity of payment systems.

The payment system can be defined in a narrow and broad sense. In the narrow sense, the payment system is usually interpreted as an interbank money transfer system. In a broad sense, a payment system is a system of relations between economic entities, organized in a certain way, which, in accordance with established rules and procedures, provides the infrastructure for transferring funds from one economic entity to another (Kokkola, 2010, p. 25). In a broad sense, the payment system can be defined from a functional and institutional point of view.

From a functional point of view, a payment system is a set of tools, procedures and interbank payment systems used for (transferring funds on behalf of individuals and legal

entities with the aim of fulfilling payment obligations arising from them) organizing money circulation. From an institutional point of view, a payment system is an institutional structure that provides, through established procedures and legal norms, interaction between its participants and provides an opportunity to make payments using various means of payment.

Payment systems are a substitute for cash payments for domestic and international payments and are one of the basic services provided by banks and other relevant financial institutions. Enhanced forms of payment systems are financial transactions using ATMs, payment kiosks, POS terminals, cards with stored cash value; conducting transactions in foreign exchange markets, futures, derivatives and options markets. Some payment systems include credit mechanisms, but they should be considered outside the aspect of payment systems.

Thus, payment system is a set of rules, procedures and technical infrastructure that ensures the transfer of value from one subject of the economy to another. Payment systems are one of the key parts of modern monetary systems. It usually means that money is transferred through payment systems. From a legal point of view, in most cases there is a transfer of debt: the funds that the payment system owes to one of the clients, it becomes due to another client. When the first client transfers his money to the payment system, the amount of such a transfer is recorded, i.e. the amount owed to the first customer. By his order, the client can indicate that the payment system now owes not to him, but to the second client. When the second client applies to the payment system, he has the opportunity to receive a cash equivalent of such a debt. In some cases, the means of payment are not money or debts denominated in money, but conditional payment units or specialized securities (for example, WMZ, WMX).

So, in short, payment system is a set of processes and technologies that transfers monetary value from one entity or person to another. Such monetary value are money in different currencies, gold, legal obligations, etc.

The term “payment system” is a comprehensive term, that describes the essential elements of a payment system and the participants. As each system, payment system has its subjects (participants). In traditional banking payment system there are four types of participants involved:

- 1) The payer: Makes the payment and has its bank account debited for the value of the transaction.
- 2) The payer’s financial institution: Processes the transaction on the payer’s behalf.

3) The payee's financial institution: Processes the transaction on behalf of the payee and generally holds the value in an account.

4) The payee: Receives value of the payment by credit to its account (Fundamentals of Global Payment Systems and practices, 2018, p.2).

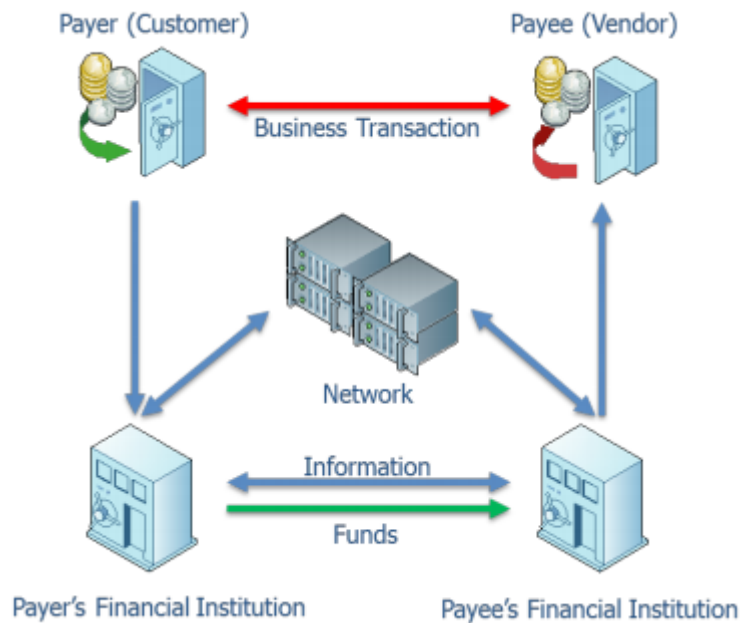


Figure 1. Ties between all participants of the payment system (Fundamentals of Global Payment Systems and practices, 2018, p.3)

All payment systems can be placed into one of the following five payment channels:

1. Paper-based systems such as checks or drafts. Payments are initiated when one party writes an instruction on paper to pay another. These systems are one of the oldest forms of non-cash payment system. Checks are a common paper-based channel and while in decline are still widely used in the United States and a few other countries.

2. RTGS (Real Time Gross Settlement) and other high-value payments; called wire transfers by most people. Wires came into being in the late 1800s with the invention of the telegraph but did not become widely used until the early 1900s.

3. Low Value Batch Systems or Automated Clearing House (ACH) batch payments were introduced in the early 1970s and were designed to replace checks with electronic payments. Unlike wires, which are processed individually, ACH payments are processed in batches and were originally intended for small payments under \$100,000 such as payroll and consumer transactions.

4. Cards are a payment channel that includes credit, debit and stored value cards. They are a heavily used and fast growing segment of the methods for making and receiving

payments. The card channel also often provides the “rails” or settlement systems supporting some of the newer ecommerce payment systems such as mobile wallets.

5. The explosion of mobile applications, cybercurrencies and other payment alternatives has created several payment methods that do not neatly fit in the preceding four channels. While the rules of settlement and value transfer are not suspended for this channel this paper recognizes them as distinct (Fundamentals of Global Payment Systems and practices, 2018, p.5).

With the development of electronic commerce and the widespread use of electronic money, electronic payment systems, which are a special type, are becoming an ever more relevant type of payment systems. These systems are characterized by another type of subjects, which is payment service providers. The processing company (provider) becomes the basic subject of payment relations, providing software and technical interaction between the subjects of the payment system (Kaluzhsky, 2014, p.9). Such companies not only provide financial services, but also ensure the functioning of a specific product of the network economy - electronic money.

The intensive growth of technological innovations in the acquiring industry, stimulated by the demand for making Real-Time payments and speeding up banking services for small and medium-sized businesses, creates additional demand and interest in the intensive development of the non-cash retail payments industry. Today, in the global economy, the most promising are electronic payments made through payment cards and electronic money. At the same time, operations involving electronic devices and means of communication (smart phones, terminals, PCs and tablets, online cash registers, etc.) are referred to as electronic settlements. Non-cash payments today are rapidly developing and crowding out banking services and cash services.

The system of retail payments is becoming increasingly relevant and is acquiring new facets with the development of new payment acquiring services. According to A. Arutyunyan: “The state of the modern system of retail payments is characterized by a tendency to gradually reduce the share of cash and an increase in the share of non-cash payments” (Arutyunyan, 2020). Non-cash payments are a part of the economy that ensures the transfer of currency specifically from the account of the company, which pays to the account of the company that receives the funds. In these calculations, the bank acts as a financial intermediary. The services that it provides to its clients-organizations, entrepreneurs and individuals are an important aspect of the modern economic system. The

order of non-cash payments is regulated by law. The implementation of settlement operations through the bank reduces the need for cash, this contributes to the concentration in the bank of free cash for lending, ensures their safety and more efficient use, it in turn optimizes and accelerates the cash flow of the state as a whole.

In January 2001, the Committee on Payment and Settlement Systems of the Bank for International Settlements (Basel, Switzerland, March 2003) of Group 10 (G10) formulated key principles for systemically important payment systems that are currently implemented in more than 40 countries around the world and which should equally be used for non-cash payments (Key principles for systemically important payment systems, p. 9):

- The system should have a well-grounded legal framework in all applicable jurisdictions;

- The rules and procedures of the system should give participants a clear understanding of the financial risks to which they are exposed due to participation in it;

- The system must have clearly defined risk management procedures establishing the responsibility of the operator and the participants in the system;

- The system must ensure the final settlement on the value date, preferably during the day, in the extreme case - by the end of the day;

- A system with multilateral netting should ensure timely completion of daily settlements in the event of the insolvency of the participant;

- Assets used for settlements should preferably be claims on the central bank. If other assets are used, they must bear a small or zero credit risk and a small or zero liquidity risk, the assets used for the calculations should preferably be claims on the central bank or bear small credit and liquidity risks;

- The system should provide a high level of security and operational reliability and have backup mechanisms for completing payment processing within one business day;

- The system should provide user-friendly and efficient payment methods for the economy;

- The system must have objective and publicly announced criteria for participation, ensuring fair and open access;

- System management mechanisms should be effective, accountable and transparent.

In addition to the technological basis and effective legislative regulation of the system of non-cash retail payments, there are still a number of advantages for users /

customers who actually form the demand for the development and increase of non-cash transactions.

The main advantages of non-cash retail payments:

- 1) The progressive development of the system of remote banking services in Russia and the world;
- 2) Systematic growth of the range of goods and services that are available for purchase through the Internet;
- 3) Increasing the number and popularization of banking programs and services in the field of cashless payments (special promotions, additional services);
- 4) Popularization of the service of co-credit cards with additional discounts and bonuses.

Labusov M.V. singled out individual characteristics — the advantages of using non-cash payments: ease of use, universality, resistance to fraud, autonomy, time of use, liquidity, verifiability of the payer, convenience of calculations on the Internet (Labusov, 2005, p.490).

The development of cashless payments is one of the priorities for the development of the national strategy of the financial sector, since the uncontrolled circulation of cash in the national economy is a favorable environment for the shadow economy and a stimulus for the development of corruption in state and municipal bodies. As well, cash is usually used for other criminal purposes - financing terrorism, smuggling, encouraging the development of illegal migration and employment, so such a “plus” of cashless payments is obvious - as a clear controllability by the fiscal services of the financial status of the sender and the payee.

According to the research of Neetu Kumari and Jhanvi Khanna, there are next models (forms) of cashless payments:

- Cheques – a cheque for a specific amount of money;
- Demand Draft – type of cheque, which have to be signed by banker;
- Automated Teller Machine (ATM) - is a combined computer terminal, with cash vault and recordkeeping system in one unit, permitting customers to enter the bank’s book keeping system with a plastic card containing a Personal Identification Number (PIN)
- NEFT - is an online platform where banks exchange value thereby enabling the performance of interbank transfers such as NEFT and NIBSS instant transferring funds between banks for single or multiple beneficiaries for individual;

- Real Time Gross Settlements (RTGS) - is used to transfer sums in favour of a single beneficiary;
- Mobile Money is a product that enables users to conduct funds transfers, make payments or receive balance enquiries on their mobile phones;
- E – transfer refers to electronic transfers which can be affected via the internet on PCs, laptops and other devices;
- Point of Sale (POS) terminals are deployed to merchant locations where users swipe their electronic cards through them in order to make payment for purchases or services instead of using raw cash;
- E-wallets that store card numbers and cash. This is a virtual wallet that can store credit card, debit card and other information;
- Mobile Wallet – the payer need to have a debit card, credit card or internet banking password for making payment using a mobile wallet. The money have to be loaded to the personal wallet via IMPS and further can be used on the move;
- Credit Cards - is a plastic card for payment for the goods or items delivered;
- Debit Cards – is a new form of value transfer, where the card holder after keying of a PIN, uses a terminal and network to authorize the transfer of value from their account to that of a merchant;
- Smart cards - is a plastic card with a computer chip inserted into it and that store and transacts data between users;
- Personal Computer Banking (Home Banking) - a term used for a variety of related methods whereby a payer uses an electronic device in the home or workplace to initiate payment to a payee;
- Electronic cheques are used in the same way as paper cheque – the clearing between payer and payee is based on existing and well known banking settlement system;
- E-cash payment system takes the form of encoded messages and representing the encrypted equivalent of digitized money;
- UPI Apps - is a mobile payment system which allows payer to do various financial transactions using smart phone. UPI allows to send or receive money using virtual payment address without entering bank information (Kumari, & Khanna, 2017, p.6703-6704).

Thus, cashless payment system became widespread and popular way of paying. The digitalizing of economic process and the wide development of e-currency stimulates this type of payment system to develop fast. In the nearest future cashless payment system will be more popular and applicable in the all spheres of human being activity.

Findings

Recent global trends are associated primarily with changes in customer behavior, which, in turn, is due to the wide presence and constant development of technologies in our daily life. Clients now expect technology to provide the most convenient access to financial services. And against this background, there is a migration from the current traditional payment instruments to the personal instrument of the client, which is usually a smartphone.

That is, in other words, the transition from traditional banking services to a more personalized and remote type of customer service based on smartphones continues. Along with this, the culture and habits in making payments and payment for services are changing. As a result, we are now part of a process in which technology can easily turn a smartphone into a wallet.

These can be both contactless payments and transactions through various mobile applications. Moreover, it should be noted that the movement is not towards the development of one single mobile application, which would include a large variety of services, but towards the development of a large number of different special mobile applications aimed at certain types of services. This makes sense, since such applications can better serve the needs of different segments. At the same time, a prerequisite is that operations in new digital channels should be carried out easily, quickly and simply.

The intensive growth of technological innovations in the acquiring industry, stimulated by the demand for Real-Time payments and the acceleration of banking services for small and medium-sized businesses, creates additional demand and interest in the intensive development of the non-cash retail payments industry. Today, in the global economy, the most promising are electronic payments carried out through payment cards and electronic money. At the same time, electronic settlements include operations carried out through the use of electronic devices and communication means (smartphones, terminals, PCs and tablets, online cash registers, etc.). Non-cash payments are rapidly developing today and are replacing banking services and services carried out for cash. Currently, there are two national payment systems operating on the territory of the Republic of Kazakhstan: the Interbank Money Transfer System (IMTS) and the Interbank Clearing System (ICS) (Payment systems of Kazakhstan, 05 May 2021).

17 payment systems are already operating in Kazakhstan. These include: the systemically important Interbank Transfer System and the Interbank Clearing System operated by the National Bank; international payment systems Visa, MasterCard, UnionPay,

American Express and Diners Club; payment card systems of banks and other organizations Altyn Card - JSC Halyk Bank of Kazakhstan, local card of Citibank Kazakhstan - JSC Citibank Kazakhstan, payment card system Kaspi.kz - Kaspi Bank JSC; systems of international money transfers Western Union, “Zolotaya Korona” and others.

Since 2019, the Suñqar instant payment system has been operating in Kazakhstan. This system allows you to make instant payments and money transfers in Kazakhstan between clients of different banks - members of the system. At the same time, for transfers of money between individuals, an identifier is used - a mobile phone number, which must be tied to any source of payment: a payment card, a current bank account, an electronic wallet.

In the segment of retail settlements of the population, payment cards are the main non-cash instrument. They are issued by 22 banks and Kazpost JSC. Also, there are 29 Kazakhstani electronic money systems operating in the domestic market, issuers of which are 10 banks. In addition, more than 60 payment organizations provide their services to the population, which accept cash through payment terminals and allow them to pay for various goods and services.

Of all the segments of non-cash payments on the market, only the payment card market has operational interaction and interbank clearing. Most of the payment card market is divided among themselves by international systems Visa (46% of all issued cards) and MasterCard (22%), local accounts for only 28%. Processing and clearing functions for interbank transactions carried out using payment cards are provided by Visa and MasterCard. These companies set their own transaction fees, which in turn is reflected in the final bank fees for businesses. According to the National Bank, the average value of the interbank commission of Visa and MasterCard systems in 2019 in Kazakhstan amounted to 1.7%, while in Europe - 0.2-0.3%, in the world - 0.99%.

According to the National Bank, as of December 1, 2020, there were 46.8 million payment cards in circulation - an increase of 46.7% compared to the same date in 2019. Most of the payment cards are debit cards, their share is almost 75%, the share of credit cards is 22.2%. The rest are debit cards with a credit limit and prepaid cards.

International and local payment card systems operate on the territory of Kazakhstan. The main share of cards in circulation - more than 67% - traditionally falls on the international payment systems Mastercard and VISA. The use of products and services of

international payment systems provides cardholders with the ability to make payments anywhere in the world.

The convenience and advantages of payment cards increase their demand among consumers of financial services. So, in 2020, 2.9 billion non-cash transactions totaling 35.3 trillion tenge were carried out using payment cards. Over the year, the volume of non-cash payments increased by 2.4 times at once.

On November 30, 2020, President of Kazakhstan Kassym-Jomart Tokayev instructed the head of the National Bank of Kazakhstan to develop a national payment system until 2025 (Kursiv, January 25, 2021). According to the regulator's vision, the national payment infrastructure will be structured around two main components - the Instant Payments System and the Interbank Payment Cards System.

The instant payment system implies conducting retail transactions and transfers in real time, around the clock, using any payment instrument and channel. The basis for such a system already exists: on the basis of the Republican State Enterprise “Kazakhstani Center for Interbank Settlements of the National Bank of the Republic of Kazakhstan” (KCMR), there is a functional of instant payments for a simplified requisite with the participation of individual STBs. The National Bank proposes to admit non-banking organizations to this infrastructure. Thus, according to the authors of the program, it will be possible to ensure compatibility between various electronic money systems, as well as banking systems and electronic wallets.

The national payment system should appear in Kazakhstan in three stages. At the first stage - in 2021 - the development of an instant payment system and the construction of an interbank payment card system will be carried out. At the second stage, in 2022–2023, “the full-scale launch of the interbank payment card system” will take place. Over these two years, it is also planned to integrate the infrastructure components of the national payment system with similar solutions in the EAEU space. The third period is from 2024 to 2025, at this stage it is planned to develop the national payment infrastructure and new services.

The regulator also proposes to create a local infrastructure in Kazakhstan for processing payment card transactions. The implementation of the initiative will allow introducing a new instrument for in-country payments - a digital card (payment ID), which, as the National Bank expects, will significantly optimize the costs of the system participants.

The growth of contactless payments in recent years is a global trend. According to the forecasts of the research company Juniper Research, in 2024 the total volume of

contactless transactions in the world will reach almost \$ 6 trillion, compared with the current \$ 2 trillion. The catalyst will be a significant increase in the volume of contactless transactions, including payment with contactless cards and using NFC devices, including through payment services such as Google, Apple Pay and Samsung Pay. Apple Pay's user base is expected to grow in East, Southeast Asia and Europe. Speaking of examples that are closer in terms of geography and mentality, we should mention Russia, where, according to BCG, in the period from 2010 to 2018 the number of non-cash card transactions increased 3 times, and the adaptation of contactless payments using mobile phones (the same Apple Pay, Samsung Pay, Google Pay) has been more successful than anywhere else in the world.

The popularity of non-cash transactions in Kazakhstan is growing every year (fig.1.).

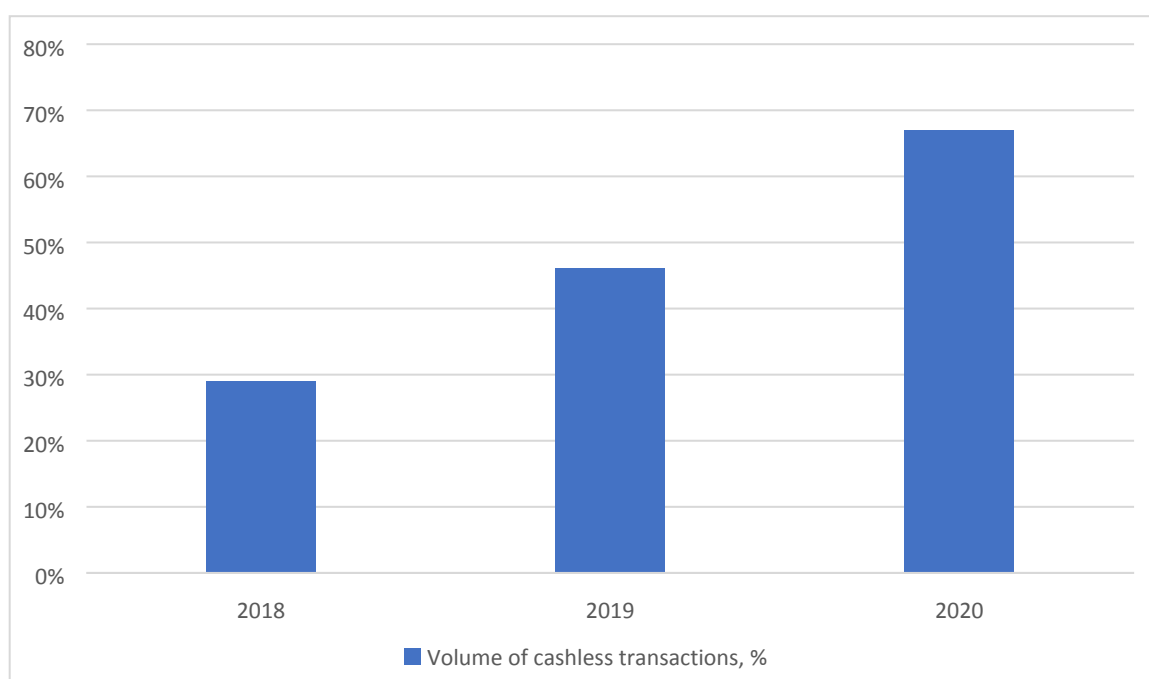


Figure 1. Volume of cashless transactions in Kazakhstan in 2018-2020

The main statistical indicators of non-cash transactions in Kazakhstan:

- the volume of non-cash transactions in the country increased 2.6 times and amounted to 34.6 trillion tenge;
- against this background, the share of non-cash transactions increased from 45.5 to 67.4%;
- among the methods of non-cash transactions, transactions on the Internet are the most popular (81% of the volume of all non-cash transactions). In monetary terms, at the end of 2020, the volume of transactions via the Internet amounted to 28.2 trillion tenge;

- by the end of 2020, the number of credit cards in circulation doubled (from 5.3 to 10.9 million units), and debit cards increased by 40% (from 25.5 to 35.6 million units);
- for every 100 inhabitants of the country today there are 189 debit and 58 credit cards (Association of Financiers of Kazakhstan, 04 May 2021).

The main driver for the development of the habit of cashless payments was the new conditions for making purchases during the COVID-19 pandemic. If before the pandemic the main driver of the non-cash payments market was the systematic development of the payment infrastructure of banks and fintech companies, then in the second quarter of 2020 an additional impetus for the development of non-cash payments was given by restrictive measures of social distancing. Since the state, seeking to minimize social contacts and compensate for the decrease in the population's income, adopted a package of legislative measures in 2020 that limited visits to bank branches and trade and service enterprises during lockdown periods in favor of remote service, hundreds of thousands of Kazakhstanis have additional incentives and opportunities to switch to non-cash form of payment. This served as the basis for the formation of a new consumer culture, which determines the primary choice of goods and services that are available remotely.

The promotion of non-cash transactions across regions is not uniform. The most dynamic non-cash payments are carried out in cities with a population of over one million (Almaty, Nur-Sultan and Shymkent), which, apparently, is explained by the large number of merchants who accept payment cards and mobile payments. A good factor is a higher level of financial literacy and consumption among residents of megalopolises, which is indirectly confirmed by the number of bank cards per capita.

Industry expert claimed that in near 5 years, there will be a lot of people who will use non-cashless payments, because digitalization is developing time by time. But still, it depends on people and to the speed of evolving technologies. Also, there is a project that they want to implement in the future: payment through face ID (Face Pay), thus reducing the use of plastic cards.

Moreover, the Bank Center Credit actively cooperating with PSC, in order to take care of and facilitate the retirement of the elderly ones. Their aim is to make the requesting online without standing in line and filling out some paperwork. The individual identification number of future pensioner is enough.

Discussion and Analysis

The coronavirus pandemic has brought about significant changes in the way people live. Forced isolation, remote work, the transition to home meals - all this affected the purchasing behavior of Kazakhstanis, in particular, the practice of making payments.

The following trends are seen in the modern payment market in Kazakhstan:

- 1) fragmentation of the market by the size of actors - the number of medium and small enterprises is growing;
- 2) the transition of customer service to remote channels - the use of interbank settlement systems and electronic systems;
- 3) division into a basic service and additional services - an increase in the number of new bonus services and services when servicing accounts with payment cards;
- 4) financial institutions are beginning to implement new solutions in order to reduce their own costs, and not just to retain customers;
- 5) increasing the interoperability of systems, for example, linking bank cards to electronic wallets;
- 6) the emergence of a new type of regulation in the financial market - a tendency to deverticalize legislation in the industry of financial market regulation;
- 7) creation of institutional conditions for the development of innovations in order to ensure the effective functioning of the acquiring system.

These trends indicate a clear reorientation of the economy of the Republic of Kazakhstan towards a cashless economy.

The Kazakh banking sector was one of the first in the CIS to introduce technological innovation, and payment solutions were no exception. Kazkom launched contactless cards and terminals back in 2013, and in 2016 - a contactless payment service for Android smartphones together with Visa. At the end of 2017, Halyk Bank launched Homebank Pay QR payments for iOS and Android users. The next year was a truly breakthrough year for the contactless payment market: payments by QR code were implemented by Kaspi and the Rakhmet service, contactless payment technologies by QR code or NFC appeared in the applications of the Eurasian Bank, Sberbank, ATFBank, and Narodny launched Garmin Pay. At the end of 2018, six banks offered Apple Pay, Samsung Pay came to Kazakhstan at the beginning of 2020, and Halyk Bank announced the launch of NFC payments for Android devices in the Homebank application. The active introduction of contactless payment technologies has contributed to the fact that the sight of a person paying with a smartphone

for a weekly grocery purchase in a suburban hypermarket or using public transport via a QR code is no longer a rare occurrence.

The infrastructure of payments (primarily mobile) created by financial institutions in recent years, as well as quarantine restrictions and a favorable regulatory regime have allowed the market to demonstrate rapid growth in the segment of non-cash transactions, as well as P2P transfers between individuals.

In Kazakhstan, there is an explosive growth in non-cash and contactless payments. At the same time, it is not yet possible to completely do without cash.

As the National Bank recently reported, in 2020, 3.2 billion transactions worth 52 trillion tenge were carried out with Kazakhstani cards, which is 1.7 times higher than in 2019.

Moreover, 9 out of 10 transactions with payment cards were carried out by non-cash method. During 2020, 2.9 billion non-cash transactions in the amount of 35.3 trillion tenge were carried out using payment cards of Kazakhstani issuers. This exceeds the indicators of 2019 by 2.4 and 2.5 times, respectively.

At the same time, the number of cash withdrawal operations decreased. In 2020, their number decreased by 21% (297 million operations). Holders of payment cards cashed out 16.6 trillion tenge.

As of February 1, 2021, there were 49.3 million payment cards in circulation, of which 26.5 million cards (53.8%) are actively used by holders.

The infrastructure for paying for goods and services using payment cards is also expanding. The number of entrepreneurs accepting payment by card exceeded 108 thousand, and the number of retail outlets - 169 thousand. In total, 203 thousand POS terminals operate in Kazakhstan.

Compared to 2019, there is an increase in the number of outlets accepting payment by payment card (by 26%) and POS terminals (by 26%). By the end of 2020, 86% of POS terminals on the market supported contactless payment function (Official information resource of the Prime Minister of the Republic of Kazakhstan, 26 January 2021).

Statistics for the I quarter of 2021:

- Non-cash payments continued their “explosive” growth: the volume of non-cash transactions in the first quarter increased 2.2 times, to 12.5 trillion tenge (for 3M20 - 5.6 trillion tenge). Obviously, the COVID-19 pandemic and the convenience of the product have formed the habit of paying by bank transfer.

- Against this background, the share of non-cash transactions increased from 59.8% to 74.3% (YoY).

- At the same time, transactions on the Internet in the first quarter of this year amounted to 10.2 trillion tenge, or 81.9% of all non-cash transactions.

- Almaty is approaching a full transition to non-cash: its share has grown to 85% from 71% earlier. The growth rate of credit cards in circulation (+ 77% YoY) is twice as fast as the corresponding indicator of debit cards (+ 38% YoY).

- At the same time, debit cards remain prevailing in terms of quantity (37.9 million vs 12.1 million). Accordingly, the number of debit cards in circulation per 100 residents of the country is 201, and the number of credit cards is 64.

- Regions of the country are using the potential for growth in non-cash payments: for the first time, the share of non-cash payments has become prevalent in all regions of the country (Capital. Business Information Center, 4 May 2021).

It is obvious that the rapid development of the payment infrastructure by key players in the market, access to hundreds of thousands of Kazakhstanis who previously did not have a way for cashless payments through social payments, as well as the desire of citizens to minimize cash payments due to Covid-19, has a positive impact on the transition from cash to non-cash payments. Actually, these factors are the main drivers of the increased dynamics of non-cash payments in Kazakhstan over the past two years. They had a significant impact on the change in the purchasing behavior of Kazakhstanis.

Nevertheless, the market for cashless payments is approaching saturation point. Accordingly, further dynamics will not be so pronounced, especially given the expected drop in economic activity in the country due to the return of restrictions to combat the coronavirus pandemic in the country.

As we already stated the main driver of cashless economy development it was a pandemic. The pandemic and the lockdown regime have had a significant change in the purchasing behavior of Kazakhstanis (in fact, as well as other people in the world). The main aspects of the change in the purchasing behavior of Kazakhstanis during the pandemic period:

1) Quarantine has created conditions for the forced and quick transition of customers to online. It so happened that people stayed at home in the company of smartphones. They were forced to use online to obtain the necessary banking services. For many clients, this

was the first experience of remote interaction with banks. And they liked him. However, we take into account that a certain segment of customers will return to branches.

2) Quarantine has increased people's confidence in online. During the period of self-isolation, Kazakhstanis had enough time to learn and use mobile banking. Those who were distrustful of online were able to experience its benefits and increase their confidence in it.

3) Quarantine has raised requirements for banking services. It has become even more important for customers to save 3 main resources: time, effort and money when receiving banking services. Market players will improve the quality and expand the functionality of mobile banking in the fight for a client. As a result, the customer will be the first to benefit from the competition.

4) Quarantine has increased the importance of developing online ecosystems for banks. It became important for the client to have a service in his smartphone that could satisfy his daily financial needs.

5) Quarantine gave an additional impetus to the development of non-cash payments and transfers. The pandemic has shown the unhygienic use of cash and the convenience of online transactions. Regardless of location and time of day, customers have the ability to transfer money and pay the required payments without transferring cash from hand to hand.

6) Quarantine forced retailers to dive into the digital environment. Those sellers who have delayed the transition to online will be forced to rebuild their work in a hurry. It is now important for consumers to receive a full-fledged customer journey, that is, complete online solutions when interacting with retailers.

7) Quarantine will contribute to the revision of the business models of Kazakhstani banks. Second-tier banks will have to transform their services to fit the new realities. The work with big data, which plays a decisive role in the banking sector, as well as the sources of this data will be intensified. Many partnerships and collaborations will also undergo changes, increasingly adapting to the new external environment and focusing on changes in customer habits and requirements. We assume that new businesses will appear on the market, which did not exist before, but which will try to satisfy the new financial needs of Kazakhstanis.

After a serious decline in April due to measures to combat the pandemic (-18%), the volume of non-cash card payments in the country in May increased by 34%, or 600.4 billion tenge to the level of 2,364.1 billion tenge, which is the maximum indicator for the entire history of observations. At the same time, in comparison with the same period last year, there

is a more pronounced growth - 2.5 times from an indicator of 927.6 billion tenge (Capital Business Information Center, 25 June 2020).

Obviously, this surge is mainly due to the deferred demand for the purchase of goods and services due to the closure of retail chains, business centers and travel restrictions in April, as well as the desire of citizens to minimize cash payments. Accordingly, this peak growth is likely to be one-off, especially given the return of some of the pandemic's restraints to the country.

Digitalization and technological solutions in the payment card market made it possible to neutralize the negative consequences of the pandemic affecting the country's trade sector. Thus, against the general background of a 7.3% decline in retail trade in the country, the share of e-commerce showed a record growth. In general, the volume of e-commerce in the structure of retail trade in 2020 almost tripled - from 3.8% to 9.7%.

The increase in retail activity via the Internet occurred during the period of outbreaks of morbidity and related quarantine. By the end of 2020, 108.2 thousand entrepreneurs accepted payment using payment cards on the territory of Kazakhstan, which is 12.2% more than in the previous year. Over the past five years, the number of such companies has increased 2.5 times. Thus, Kazakhstan is confidently following the positive global trend of transition to more transparent and secure non-cash payments.

As a result of the survey, it was possible to establish the following most basic information in the framework of our study:

1) for 67.9% of the population of Kazakhstan, non-cash payments have become a new daily habit, since in this way they pay for various goods and services every day;

2) today, the problem is quite urgent, the problem of the lack of the possibility of making non-cash payments (for 50.7% of respondents) - this indicates that the dynamics of non-cash payments in the next 2-3 years will still actively progress due to the elimination of systemic shortcomings, while cashless payments will become a new fully accessible reality;

3) the main problem in the implementation of non-cash payments is the lack of a terminal - this problem indicates the inadequacy of the terminal system in many parts of large cities and small towns;

4) the most convenient platform for making non-cash payments is Kaspi QR, as well as banking mobile applications with a wider functionality of online transactions;

5) the life of 55.7% of respondents has improved significantly (10 points) thanks to non-cash payments.

Conclusion

In 2020, the COVID-19 pandemic had a significant impact on the transition to a non-cash settlement format. Consumers all over the world are switching to contactless and online methods of obtaining services in order to maintain social distance. The main share of non-cash transactions on the territory of the Republic of Kazakhstan in 2020 was carried out online - 81.4% of the total volume of non-cash payments. Today 20 banks in the country have a mobile banking service for users of iOS and Android systems. Over the year, the number of users of online banking services increased by 45.8% to 28.7 million (a year earlier - 19.7 million users).

The growth of non-cash payments is also due to the establishment of the infrastructure of POS-terminals, entry into the Kazakhstan markets of Apple Pay and Samsung Pay, stimulation by banks and payment systems of customers through bonuses and cashbacks, as well as the active use of non-cash payments in all types of public transport. The introduction of innovative technologies into the Kazakhstani market by international payment systems, such as contactless payment, Tap on Phone, etc., also plays a role. making a transaction and thus reduce the risk of transmission of infection. Tap on Phone allows you to turn an ordinary smartphone into a full-fledged POS terminal for accepting non-cash contactless payments at any point where there is a mobile Internet. This reduces the costs of traders, is beneficial for banks, is very convenient for buyers, and generally contributes to the reduction of the shadow economy.

The results of our survey indicate that in the Republic of Kazakhstan there remain some problems with the availability of cashless payments as an opportunity to make payments. Nevertheless, already today most of the respondents appreciated the advantages and convenience of non-cash payments, so they made them their new daily option (i.e. a habit). We believe that with the further development of the banks' functionality to provide the possibility of non-cash payments by cards, this will become a new norm of everyday life in Kazakhstan, which, incidentally, corresponds to global trends.

Today, non-cash payments are mainly carried out in addition to large business, they are actively using SMS. One of the important points is that the state has introduced a moratorium on taxes for individual entrepreneurs, respectively, this has led to the fact that the SME uses non-cash payments. This program encourages cashless payments. Also, the

technological solution of Kaspi Kz, the use of QR code allows you to receive a bonus, thereby forcing small medium-sized businesses to use only cashless payments.

Cash payment will be remain, and it should remain because the Kazakh system is corrupt, and the 15-20% that should go to an official should go in cash. Without this, no projects in KZ do not work, only if the entire corrupt system is eradicated, only then it is possible to switch to non-cash. There are also advantages that it is difficult to withdraw cash abroad, that is, to legalize, respectively, this money will be spent on the country's economy, supporting SMEs.

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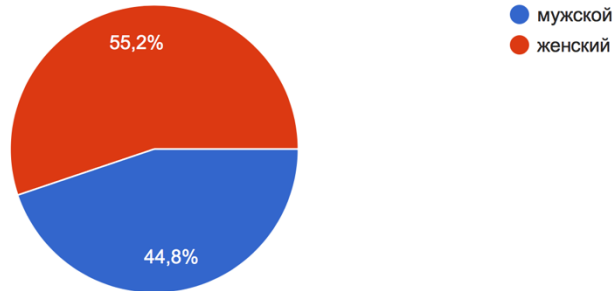
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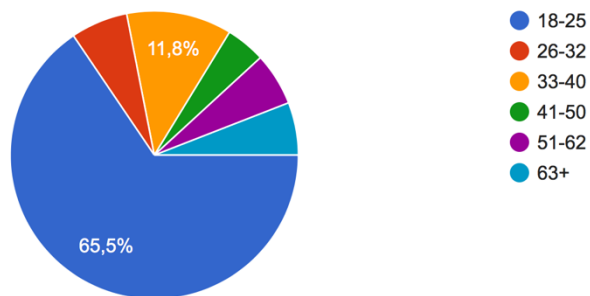
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Appendixes

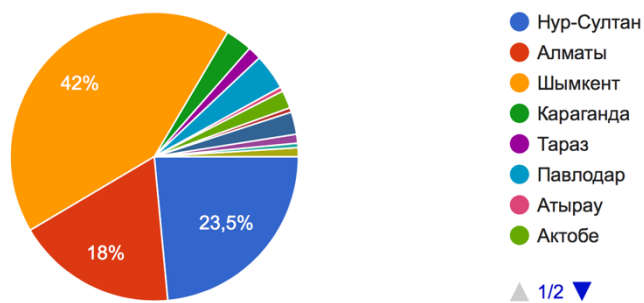
Укажите ваш пол
203 ответа



Укажите ваш возраст
203 ответа

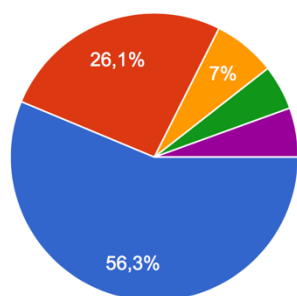


Где вы проживаете на данный момент?
200 ответов



Укажите ваш род деятельности

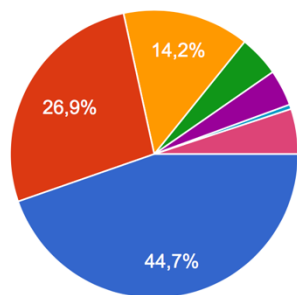
199 ответов



- студент
- карьерист
- предприниматель
- пенсионер
- безработный

Укажите уровень вашего дохода

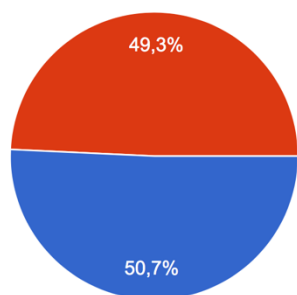
197 ответов



- до 100.000
- 100.000-200.000
- 200.000-300.000
- 300.000-450.000
- 450.000-600.000
- 600.000-1.000.000
- 1.000.000+

Часто ли вы сталкиваетесь с отсутствием безналичного расчета?

203 ответа



- да
- нет

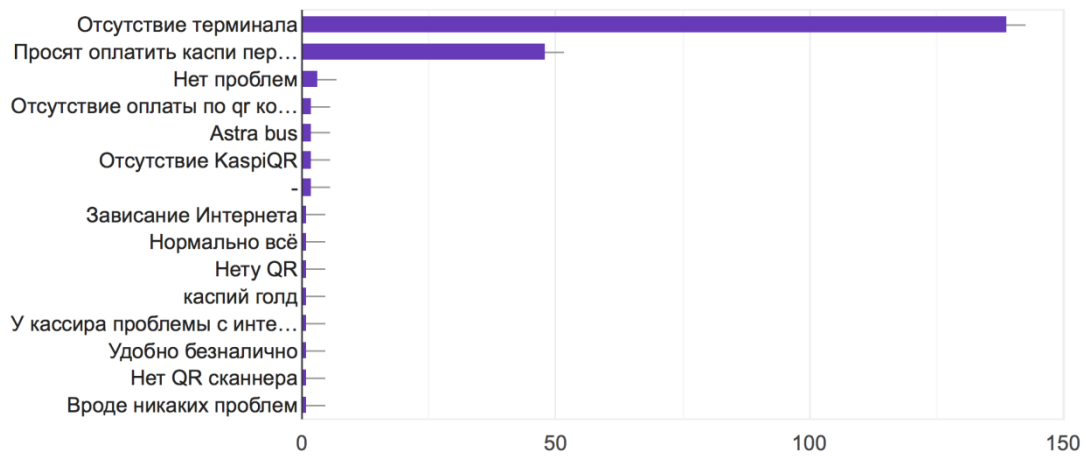
Как часто вы пользуетесь безналичным расчетом?

202 ответа



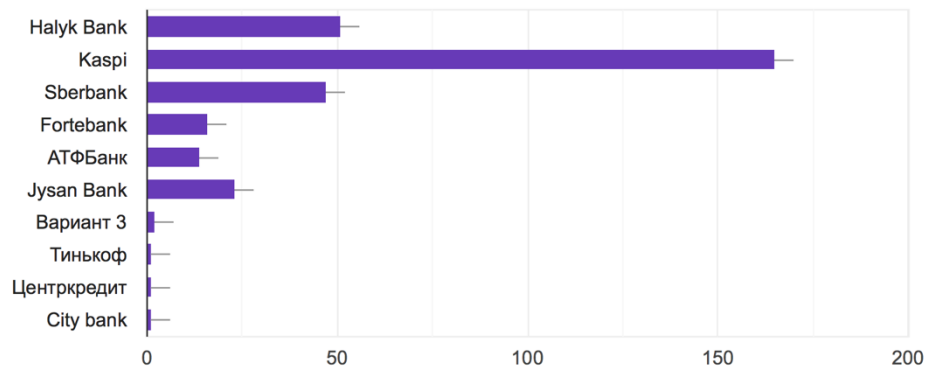
Какими проблемами вы часто сталкиваетесь во время безналичной оплаты?

185 ответов



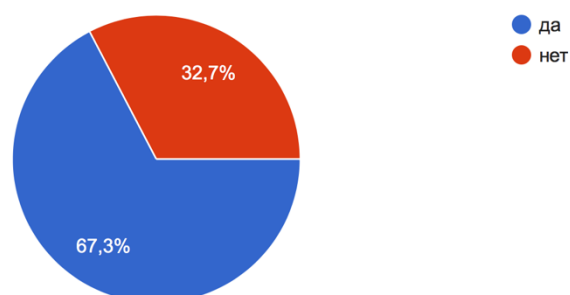
Карту какого банка вы используете?

202 ответа



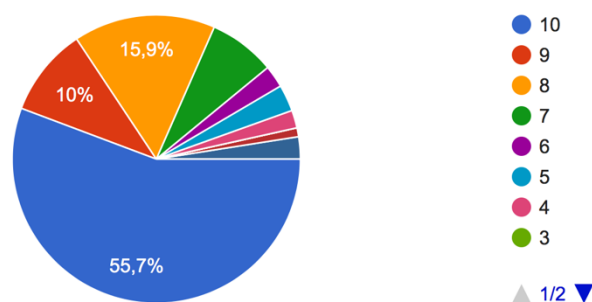
Выбирая карту, ознакомливаетесь ли вы с тарифами и условиями в договоре?

202 ответа



Оцените от 1 до 10, насколько безналичный расчет облегчает вашу жизнь

201 ответ



- The current possibilities of cashless payments have led to the emergence of a new term - "cashless economy", which implies that cash payments, at least, will fade into the background, or even shrink to a minimum. How do you see the future of the financial system?
- Will coins and banknotes remain and will they be in circulation on a par with non-cash payments?
- Pros and cons of cashless payments?
- What is an innovative payment service today?
- In your opinion, what is the benefits of cashbacks for the bank?

Actually, in the development perspective, the financial sector progressively is moving towards digital. More and more functionality is going into digital marketing. Even conditionally, payment by cards is now being transferred to a digital version (QR code and etc). The market is very rapidly moving into the cashless payment zone: Apple pay, Samsung Pay, Huawei. The Head of Marketing in BCC bank, Alexey Kravchuk claimed: “In the future, as a bank, we are also preparing several products that will be fully digitized and, of course, we will probably give up completely from plastics.” Just like the principle of some kind of cash turnover of money. But in any case, there are always regions in which all this is not very developed, and we try to keep track of all this. And so that they do not fall out, we sometimes make whole special campaigns for their specifics. In the near future, in fact, according to our estimates, in the next 3 years there, everything will basically go to non-cash settlement, because now there are 20 thousand million instruments and each bank, depending on its competence and the market in which it is represented most of all these develops and only strengthens this area.

In theory, it will still be in cash, but only in the regions. Well, conventionally at the moment it is enough to have a cell phone, where all the cards are attached, and most people do just that. If you look across the country as a whole, you can see a pattern that now somehow evenly due to the fact that there are cities such as Zharkent, where, mainly receiving a salary on a card, people immediately go to withdraw cash. But we also try to somehow involve potential customers, strengthen the equalization zone and strengthen the zones directly. How we create this equalization, where you can pay with cards, give them special bonuses, as if quietly pulling a blanket to our side, talk about the benefits, about cashbacks and other things, so that people withdraw cash less and less, namely, use non-cash by calculation. Well, Kaspi Bank actually uses it a lot in its turnover. Therefore, the future belongs to digital cashless payments.

Of the advantages of cashless payments, this is convenience, first of all. When you always have everything at hand and you can empire more by some means without going to the bank. You have them with you 24/7. Banking 24/7 is always convenient. The next plus is complete transparency. But here it is again twofold, because the company ... well, all earnings and declarations, they become immediately transparent. If you look like this, then cash remains somehow without advantages. But there is a moment when an ATM cannot accept your card, because there is no wi-fi or no signal, then the good old cash decides. Although most of them are still on the side of non-cash, but again, everyone, probably, has

some certain small cash in his wallet. For example, you have to buy cigarettes at a kiosk, and then you seem to use non-cash payments anyway.

In the next 5 years, there will definitely be more, because it depends on how quickly digitalization will occur and how quickly all people will switch to cashless payments. Why am I talking more about the regions, because we have touched upon this in principle and we have several projects aimed at developing the regional network. We are faced with the fact that, as it were ... For example, a conventionally small town, where its residents receive a salary on a card, who are participants in our salary project. But if we look at transactional activity, then there is none at all. Because people got their salaries on the 1st and they take everything off at once. And so 95% of the entire city does it. He also said: "We are now trying to apply all kinds of marketing tools, trying to explain that: "Guys, do not withdraw money. You fill up your car there, stop by this gas station, you will get cashback. " This is such a job that you need to prepare this audience to directly immerse and cook. It's just that somewhere there is no terminal at all, somewhere there is no Internet. Well, here such moments arise. "

There are innovative services and are developing. For ourselves for the next five years, as a bank, we set goals to reduce, to minimize, it is also possible to partially abandon even plastics in general somewhere. Also, today we are one of the first banks who began to develop and we have Face Pay, this is when a terminal is installed, through your face you can pay by a person, conditionally. We try such projects, partially launch them in point objects. In principle, people are comfortable. But now there is a pandemic and everyone is wearing masks. So there is always something that slows down a little.

In the context of the beginning of campus projects, when the card is a pass to everyone in the world, in order to minimize the amount of plastic in people, it is still much easier, roughly speaking, starting there with students. From their youth they get used to the fact that, conventionally, having one card, you can already go to the institute, pay for something else, and so on. We also put all kinds of terminals there so that they can enter there through the face and in the future also pay in a coffee shop and everything else.

Moreover, that is, even now these Apple Pay, Samsung Pay and Huawei, all these payment systems, they are, as it were, intermediate. All these things seemed to give a big impetus. Moreover, when Huawei surpassed the straight line and switched most of the Android owners to themselves. Samsung Pay took a very large share. At first, as it were, few people

used it, but now they are very well represented on the market. Although there is a large audience in megalopolises, in any case, at least for plastics, we try to have a fee. And the most important thing is to teach. And it's not just to show, we are positioning our direction in the future, more like showing: how to save money at the expense of some instruments, such as cashbacks, deposit interests, rates and everything else, and then increase it. This is such a whole stage, namely financial literacy.

By the way, we launched such a huge project as “financial literacy” last year. When we go to schoolchildren, even at the school stage, we begin to talk about the advantages and that the bank is not some big, scary institution where you do not want to go and there will be a lot of pieces of paper and everything else. We are trying to convey to schoolchildren that a bank is a pleasant, simple place where, in principle, certain instruments have already been consciously multiplied, saved, and somewhere even partially earned. We make several posts of all kinds of information and life hacks there, where you can earn money.

We are one of the first banks to launch open IP. This is when complex processes are synchronized, and for legal entities they are synchronized with mass-use programs and greatly simplifies the life of accountants. There is a platform that allows you to integrate some operations and make some kind of report. They do not transmit data. For example, we are now actively cooperating with the Population Service Centers, so that conventionally when a person retires, we take all the worries upon ourselves. We agreed with the Population Service Centers that we will take care of the registration and everything else. In fact, IIN (Individual Identification Number) is enough for us. But this again means the development of technology, this is the fact that in the future there were no such papers and there will be no need to collect information. IIN will be enough. The PSC takes the IIN, and the bank is already issuing a card to you without any queues, running and all that. An application is made and a card is issued. And the pension is already being received there. Plus, how would we try to develop this too, due to the fact that we have a loyal cashback system. There is such a goal and the task is to show people how and what is needed, that cashbacks are great. This is not just something like that, but they can be earned and withdrawn with real money to your account. Speaking about bonuses, about which we cannot say anything bad, it is also convenient to some extent. But there it is limited in the sense that it will not be possible to withdraw them to the account. They will pay only Onay, or there for cellular communication. And here, even by paying for a communal apartment, you can get 1% cashback there.

They try to make people fully experience all the delights of this non-cash settlement. The more a person gets involved in this, the more he understands these advantages, it becomes much easier for him. Then, next time he will slowly start paying by card.

Cashbacks are, in any case, the relationship between the bank and its partner (one or another outlet). The person who makes transactions through the card eventually becomes much closer than the one who withdraws the entire salary. Potentially, he is more located, or rather, he is already conditionally their client by 50%. It is much more convenient for the bank to explain to him the advantages of another product and tell him, because he is more involved in the banking process. And the costs that go into cashback, roughly speaking, justify themselves in the future. According to Mr. Andrey: "Because then a person using the card will think: "Oh, guys, great! You have good cashbacks here. What else do you have? " In this way, we gain customer loyalty. "