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ANALYSIS OF CASHLESS PAYMENTS TYPES

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The rapid development of IT-technologies has impacted many aspects of human's life, including the financial services. This kind of development created new financial technology which can be defined as cashless payments. There are several types of cashless payments these days and in this article the most wide-spread types of them such as credit cards, Internet Banking and NFC are examined.

Key words: cashless payments, internet banking, bank, credit card, NFC, digital economics.

In Kazakhstan, until September 10, 2016, retail payments could be processed by each of the banks within 4 working days: 3 days were provided for the acceptance of payment, after the next day the payment was received from the Bank to the interbank clearing System for calculation, where on the same day or the next (depending on the time of receipt) was sent to the beneficiary's Bank, which also had 3 days to accept the order. The law of the Republic of Kazakhstan "on payments and payment systems" has excluded the procedure of acceptance and now the term for each of the banks has been reduced from 4 to 2 days and from 1.06.2017 – up to 1 day. [1]

It is well known fact that, the dynamic penetration of smartphones, tablets and other mobile devices, the development of the Internet has led to a fundamental change in the behavioral and consumer habits of the population. Today, customers expect banks to make quick decisions that fit seamlessly into their digital lives and adapt to their growing needs and desires.

Nowadays we are all becoming aware of the fact that, the relevance of cashless payments is increasing due to the rapid development of new methods of non-cash payments using the latest banking and information technologies. For further studying and analysis of considering issue there is the definition of each type of cashless payments would be given.

Credit card is a payment card issued to users (cardholders) to enable the cardholder to pay a merchant for goods and services based on the promise of cardholder to the card issuer to pay them for the amounts plus the other agreed charges.

Internet Banking, also known as Online Banking, are services offered via the internet, including websites or special mobile apps. Usually attached to a credit card, but some banks offer virtual card or wallet.

NFC (near field communication) is a set of communication protocols that enable two electronic devices, one of which is usually a portable device such as a smartphone, to establish communication by bringing them within 4 cm of each other. [2]

Cashless payments allow to buy goods and services, make any kinds of transactions without the physical obligation of carrying cash, which saves money from counterfeiters, physical damages, losses. In fact, any amount of money can be send over long distances in a short period of time, which liberates banks from distribution costs.

Internet Banking allows to make transactions without leaving the house. The systems of Online Banking are available around the clock. Utilities, goods and service payments, ticket booking, loan payments, money transfer can be done via the applications or browsers with the help of few clicks. This kind of system allows to use financial services on the time convenient for the client and saves time of the client, without making them wait in a queue by a cashbox. Another attracting feature about the Internet Banking is the cashbacks and bonuses, given when a purchase is done.

But the services which can be paid by Internet Banking are limited, because not all companies have transferred to this type of cashless payment. And the constant internet connection is needed while using the Internet Banking. Also there is a huge risk that intruders can get access to an account of Internet Banking and steal money on that account.

In order to have an Internet Banking account in a certain bank a credit card of this bank have to be obtained. There is a difference between credit card and Internet Banking, first is the physical plastic card and second is an account on application or website of the bank. However, both of them deals with one account of individual in a bank.

It should be noticed that, the brand-new type of cashless payments is NFC. In Kazakhstan NFC system started being launched from 2018 May. The payment by NFC is available by using only a smartphone that means NFC system makes purchasing a lot easier. Because the possibility that one forgets mobile phone is lower than forgetting credit card. [3]

The main advantage of NFC is the fact that it is safer than credit cards. High-level methods of ciphering are used to encrypt the card data, the transaction data, which makes it impossible for intruders to intercept. This method solves the growing cybercrimes connected with Internet Banking and the credit cards. However, there are the problems of supply of NFC by commercial banks supporting of considering system.

The huge doubtful thing about the cashless payments is its total transparency, in other words there is no more such thing as personal freedom. A bank has an access to any kind of transactions made by an account, nevertheless were the transactions made by credit card, Internet Banking or NFC. This is good while combating corruption, but it is way of interference with privacy of an individual.

The development of technologies and the demand of the public for faster services in the field of retail payments has become one of the factors in the emergence of national schemes of instant payments and money transfers from the client's Bank account since the early 2000s in a number of countries. The following table gives information about countries with instant payment systems.

Table 1 – Countries with instant payment systems [4]

Country	System, year	Estimated time of payment
South africa	Real-Time Clearing (RTC), 2006	- 60 seconds; - 3 payment cycles during the day
United Kingdom	Faster Payments Service (FPS), 2008	- 15 seconds; - 3 payment cycles during the day - limits from 10000 till 100000 pounds depending on bank - free for individuals
India	Immediate Payment Service (IMPS), 2010	- 30 seconds; - 4 payment cycles during the day
China	Internet Banking Payment System (IBPS), 2010	- 20 seconds; - 6 payment cycles during the day
Sweden	BiR/Swish, 2012	- 1-2 seconds
Turkey	BKM Express, 2013	- 30 seconds; - 1 payment cycles during the day
Italy	Cash in a flash (Jiffy), 2014	- 2-3 seconds
Singapore	Fast And Secure Transfers (FAST), 2014	- 15 seconds; - 1 payment cycles during the day - limit 50000 sing. Dollars
Switzerland	Twint. 2015	- 2-3 seconds; - 1 payment cycles during the day
Mexico	SPEI, 2004 (22,5/7) from 2015 – 24/7	- average processing time 13,6 seconds;
Source: www.nationalbank.kz		

Also, such systems are planned for implementation until 2020 in the US, Australia, Hong Kong, Saudi Arabia. The European payment Council is currently working on a project of instant credit transfer system throughout the European Union.

Instant payment systems have the following characteristics:

- 1) payments in real/close to real time, instant availability of money for the recipient;
- 2) operational availability 24/7;
- 3) mobile communication or Internet as the main channels of access to services.

In terms of organization of settlements between banks, there are two typical models:

The first model is aimed at end-to-end processing of all retail payments in real time, including the implementation of the calculation. Thus, interbank settlements require instant debiting and crediting of customer accounts between the customer and the Bank.

As a result of the use of such a design, financial/credit risks are reduced to zero (provided that the participants are provided with liquidity), while the system is subject to high operational requirements – the required speed, the absolute volume of operations, the constant availability of the settlement system. Mexico and Australia are examples of this approach. Mexico uses high-frequency calculations (every 3 seconds or 300 payment orders), and Australia is developing a dedicated module in the real-time payment system.[4]

The second model is aimed at providing instant payments with deferred net payments. Customers still make instant payments, but interbank settlements are made on the basis of multilateral netting over several settlement cycles during the business day.

This creates certain financial risks that are subject to management (in particular, through collateral, loss allocation agreements and/or maximum limits on credit and debit positions). Because the systems operate 24/7, financial risks can arise before the next business day or during weekends and public holidays, when payments can accumulate within the billing cycle.

Most of the systems of instant payments (with the exception of Turkey) was built on the basis of delayed clearing (UK , Sweden, Singapore, South Africa, India). These systems are also sometimes referred to as fast ACH / fast ACH (Automated clearing house).

Mobile payment: The introduction of these services has led to an increase in the use of mobile applications of banks providing such services, and an increase in mobile payments outside the traditional banking operating hours.

E-Commerce, e-invoicing: in e-Commerce and mobile Commerce, the need to enter all the data of a payment card can not be called a very convenient and safe condition for payment. In this regard, payments directly from the Bank account are a new guaranteed method of payment in e-Commerce (authorization of the payer takes place via the Internet or mobile banking).

Among the potential problematic issues of building instant payment systems and development of cashless payment systems, experts highlight investments in the modernization of the infrastructure of the banking sector, ensuring the coordination of the project at the macro level and achieving a critical mass of participants and users (customers).

On the part of the banking community – the introduction of this system may affect the income of banks in the segment of card payments and money transfers. At the same time, in case of reaching a wide coverage of users, instant payments can replace cash and increase the number of Bank customers, in this case it will serve as a source of additional income for banks.

New financial technologies make the whole financial services a lot easier. They partly solve the questions of safety, usability and efficiency of finances. Popularizing them by including more banks and companies would improve the economics in case of individual, country and world.

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KAZAKHSTAN STOCK MARKET: PROBLEMS AND SOLUTIONS

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There were made a lot of actions and constant work on the creation and development of the stock market in Kazakhstan. This process consists of several stages. At the initial stage, a legal framework was created that ensured the existence and development of the stock market. At the next stage, large state-owned enterprises were privatized, which became the first participants in the stock market, such companies as Halyk Bank, Kazakhtelecom, KazMunaiGaz trading house and others. Thus began the activity of the stock market. However, after some time, both positive and negative factors affecting the development of the stock market were identified. The analysis of these factors showed that most of the available financial instruments were not widely developed and applied, as a result of which the stock market is developing unevenly and unstable. In this article it was decided to consider the problems of the stock market and their solutions.

Securities play a significant role in the payment turnover of the state, in the mobilization of investment. The aggregate of securities in circulation constitutes the basis of the stock market, which is the regulating element of the economy. It facilitates the movement of capital from investors with free monetary resources to issuers of securities. Thus, the stock market as an instrument of market regulation plays an important role.