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About problems in the development of cashless payments using the bank cards

In this article, the authors highlight the dynamics of market of the cashless payments made with the bank cards. The article deals with the theoretical and practical aspects of development of cashless payments using bank cards in the Russian Federation.

Identified trends laws reflect some problems on financial literacy and lack of public confidence in the system of cashless payments. The theoretical and practical problems are relevance and caused by increasing performance requirements of non-cash payments in the moment, and that problem requires a scientific basis.

The authors believe that the introduction of bank payment cards is an important direction of development of the payment system and is aimed at the reducing cash circulation in Russia.

О некоторых проблемах развития безналичных расчетов с использованием банковских карт

В данной статье авторами освещается динамика развития рынка безналичных расчетов, совершаемых с использованием банковских карт. Рассмотрены теоретические и практические аспекты развития безналичных расчетов с использованием банковских карт в Российской Федерации. Выявленные тенденции отражают определенные проблемы в вопросах финансовой грамотности и отсутствия доверия граждан к системам безналичных расчетов. Актуальность рассмотренных теоретических и практических вопросов обусловлена повышением требований к эффективности безналичных расчетов в настоящее время, что требует научного обоснования. Авторы считают, что внедрение платежных банковских карт является важным направлением развития платежной системы и нацелено на сокращение наличного денежного оборота в России.

Keywords: *banking risk, non-cash payments, credit risk, liquidity risk, the risk of unauthorized debiting, credit card, debit card, payment system.*

Ключевые слова: банковские риски, безналичные расчеты, кредитный риск, риск ликвидности, риск неавторизованного списания, кредитная карта, дебетовая карта, платежная система.

The Russian Federation has been integrating into the global financial system actively since 1990. This process is connected with the development of financial technologies such as electronic payment systems.

Technologies of developed countries can't be used in the same way in the financial market of developing countries.

Electronic payment systems are being introduced in the daily lives of people for nearly twenty years. But nowadays the share of cash in the Russian economy is much higher than in developed countries. This can be explained both by low financial literacy of the population and the insufficient development of the country's infrastructure. All this does not allow people understand the convenience of using cashless money transfers in full. Thus these problems are actual for the research.

Active use of electronic funds in the Russian market of retail payment services began several years ago and was caused by the development of information systems and telecommunication technologies.

There are 2 basic models of electronic funds transfer (EFT):

- by the credit organizations with the use of prepaid cards;
- by the non-credit organizations in the form of contractual relationships with the customers, using PC software and telecommunication networks, including the Internet.

The legislative basis for regulation of electronic money appeared in the Russian Federation when the Federal Law № 161-FL "On the national payment system" was adopted on June, 27, 2011. Only credit organizations can operate electronic money according to the law. Non-banking credit organizations are allowed transfer money (electronic funds included) without opening of bank accounts, but are not allowed to attract temporary free capital of clients [1].

Introduction of banking technologies such as payment cards is one of the important directions of development of the payment system. Their use will help to reduce cash turnover in the Russian Federation. 621 credit organizations conducted emission or/and acquiring of payment cards in July 2014. The number of payment cards issued by credit organizations reached more than 220 million in July 2014 (2005 - 54.6mln; 2009 - 124.0mln). The number of bank cards issued by the credit organizations shows their stable growth. Thus, the number of cards increased from 192 thousand, in 2012 up to 244 thousand in 2015. On average, their number has increased by 8.39%.

Infrastructure providing transactions with payment cards both payment for goods and services and cash withdrawal has been developing rapidly in recent years.

In July, 2015 1017646 POS terminals and 237,925 ATMs (2005 - 140 096 POS terminals, 27 779 ATMs, 2009 - 354 391 POS terminals and 92,530 ATMs)

could be found in the Russian Federation. One should mention the constantly growing number of POS terminals conducting electronic payments for goods and services. However, the growth of the number of ATMs is restricted to limit cash withdrawal [2].

One can receive cash using any debit or credit card Visa or Master Card at any ATM. However, it is worth noting that the cards of other international and Russian payment systems are accepted only by special ATMs.

Some ATMs in addition to cash withdrawal function support the other functions: payment for different types of services, including utilities, services of mobile operators, Internet service providers, cable TV networks [3].

The number and value transactions committed with the help of payment cards issued by resident and non-resident emitters.

<i>Year</i>	<i>Units</i>	<i>Total number</i>	<i>Including</i>		<i>Structure</i>	
			<i>operations on cash withdrawal</i>	<i>payment for goods and services</i>	<i>cash withdrawals, %</i>	<i>payment for goods and services, %</i>
2008	mlns. of units	2073,9	1587,6	486,4	76,6	23,4
	blns. of rubles	8767,8	8118,4	649,4	92,6	7,4
2009	mlns. of units	2435,6	1761,4	675,3	72,3	27,7
	blns. of rubles	9471,3	8720,1	751,3	92,1	7,9
2010	mlns. of units	3065,2	2067,2	997,9	67,4	32,6
	blns. of rubles	12094,1	10953,1	1141,0	90,6	9,4
2011	mlns. of units	4041,3	2445,6	1595,7	60,5	39,5
	blns. of rubles	16058,4	14041,4	2017,0	87,4	12,6
2012	mlns. of units	5601,3	2843,5	2758,0	50,8	49,2
	blns. of rubles	21283,8	18017,8	3266,0	84,6	15,4
2013	mlns. of units	7324,9	3167,9	4157,0	43,2	56,8
	blns. of rubles	25922,8	21362,7	4560,1	82,4	17,6
2014	mlns. of units	9420,7	3289,6	6131,0	37,2	62,8
	blns. of rubles	30278,1	23892,0	6386,1	79,6	20,4
2015	mlns.	12009,0	3331,6	8677,4	78,9	21,1

	of units					
	blns. of rubles	33222,2	25136,7	8085,5	75,7	24,3

Source: Calculated by the authors on the basis of the Bank of Russia data [10-14].

POS terminals are served by the credit organizations and the processing companies which are engaged in the exchange information on the payment transactions. Retailers need a special POS terminal provided by the credit organization or a processing company to accept Russian cards in payment for goods and services.

The payments which are made with the use of Russian payment systems cards are mostly regional (municipal). Cards of different international payment systems may be taken in the retail trade using the unified POS terminal [3].

The growth of absolute indicators the number of operations and cash value demonstrates the increasing role of payment systems and public awareness.

Data in the table show the increase in the number of transactions for payment of goods and services by means of payment systems and the reduction of operations on cash withdrawal, which indicates the increasing role payment systems among the population. So in 2008, their ratio was 23.4% and 76.6%, and in the 1st half of 2014 - 79.6% and 20.4%.

Thus at the beginning of 2014 the payment cards were used primarily for the payment for goods and services.

Although in absolute terms the value of funds transactions of these two types has positive trends of increasing transactions for payment of goods and services, but its structural change occurs at a much slower pace (so the share of these operations was 7.4% in 2008 and 20, 4% - in 2014), this fact has its reasons related to the technical equipment and the mentality of Russian citizens, but it is not the object of this research [10-14].

The current state and dynamics of the development of payment systems reveal that not only companies, but also the population prefer to conduct payment transactions using payment cards by means of electronic terminals and the Internet. Therefore it is necessary to pay attention to these trends and developing electronic payment systems that use alternative functioning mechanisms and digital cash. The example of such cryptographic payment systems is for example, Bit Coin; which might serve the majority of transactions for the payment of goods and services in future [6].

The Public Joint-Stock Company "Sberbank of Russia" has been the largest bank which emits payment cards in Russia for a long time. The number of existing credit cards of Public Joint-Stock Company "Sberbank of Russia" reached 101.9 million at the end of 2014. It is the highest rate in Europe, said Rostislav Yanykin (director of the bank card and cash department of the Public Joint-Stock Company "Sberbank of Russia"). Growth for the year was 10.6 million units, which in relative terms is 11.6% [7].

At the end of 2014 the number of credit cards of PJSC "Sberbank of Russia" was 14,6 million units. During the year, this indicator increased (in relative

terms) almost by 20%, in the quantitative terms — by 2,5 million units. In this case, the share of credit cards made up 14,32% (14,6 million units) in the total amount of cards, emitted by 2014, January 1 [7].

In 2014, debit cards increased by more than 8 million units in quantitative terms, in the relative terms — by 10,2%. At the end of 2014 the number of debit cards of PJSC “Sberbank of Russia” reached 87,3 million units. These factors played a key role in increasing the share of Sberbank in the Russian market of bank cards.

According to the research of analytical group “Intesco Research Group”, which was conducted in 2015, the credit cards gained popularity among the clients in the period 2012-2014. As a result, their share in the total amount of cards, emitted by Russian banks, increased approximately from 9,6 to 13,1%. Compared to the national index, PJSC “Sberbank of Russia”, as mentioned above, has a greater share of credit cards in the total amount of the issue [8].

PJSC “Sberbank of Russia” is the leader in the credit cards market. In 2014 its share in this market amounted to 23,2%, and in 2015 – 28,9%, according to the index rating of 2015 PJSC “Sberbank of Russia” is followed by: PJSC “Russian standard” with a share of 10,8%, PJSC “Tinkoff Credit systems” and PJSC “Alfa-Bank” with a share of 7%, PJSC “VTB-24” – 6,9% and PJSC “Home Credit” – 3,4%, PJSC “OTP Bank” – 3,1%, JSC “Svyaznoy Bank” and 2,9%, PJSC “Orient Express” – 2,5%, PJSC “Binbank Credit Cards” – 2,2%.

Besides, a significant increase of number of issued credit cards in 2014 contributed to the growth of the share of Sberbank in this segment. The closest competitor of PJSC “Sberbank of Russia” is PJSC “Russian standard”. Its share was almost 3 times less in 2015, January 1 [8,9].

PJSC “Sberbank of Russia” is also a leader of the portfolio of credit cards, which were issued in Russia. As mentioned above, during 2014 PJSC “Sberbank of Russia” issued approximately 2.5 million credit cards and total amount was more than 130 billion rubles. Meanwhile over the past year, PJSC “Russian standard” the closest competitor, had a negative trend because of the policy of reduction of volumes of retail lending due to high risks. And the gap between the amount of the portfolio of PJSC “Sberbank of Russia” and PJSC “Russian standard” increased. The fight for the third place took place between three banks. This situation showed a high level of competition among them. The management of PJSC “Sberbank of Russia” think that one of the its dangerous competitors is “Alfa-Bank”. Its priority direction is the development of innovations and orientation to the latest technologies and service standards. This direction attracts young people.

The analysis of the credit card offers, at the beginning of 2016, major players in the market was made.

Most of them are in the middle of intervals between the minimum and maximum values. This approach combines the balance between risks and attractiveness of the offer for clients.

Debit cards constitute the main share of issued cards is debit cards, despite the growing popularity of credit cards. A large number of debit cards in circulation is due to the convenience, both for clients and for the banks themselves. In 2013

and 2014 a significant part of cards was issued as part of salary projects. This measure greatly increased the number of debit cards in circulation.

The changes in the Bank card market of Russia are caused by various factors. They can influence the development of this market both positively and negatively.

These processes can be divided into the following categories:

- 1) political;
- 2) economic;
- 3) psychological;
- 4) infrastructural.

One of the most important factors, influencing the development of cashless payments with using bank cards is the fact that the vast majority of payment cards is served by international payment systems was Visa and Master Card, which are American companies. In Russia at the beginning of 2014, the market of payment systems was distributed as follows: 60% accounted to the share of Visa's company and 35% to the share of the company Master Card. And the rest 5% are owned by other payment system [2, 4].

Now the share of influence of external economic and political factors is high. Banking changes of 2014 became fundamental for the Russian banks in choosing the strategy for developing payment system.

Economic sanctions against the Russian organizations, introduced in 2014, led to the following consequences for PJSC "Sberbank of Russia":

- 1) the weakening of the ruble rate;
- 2) the creation of National System of Payment Cards;
- 3) the emergence of the threat of disconnection of Russian banks from SWIFT.

The exchange rate of the Russian currency against the dollar is an important factor in the market of banking cards in Russia. As mentioned above, now the vast majority of payment cards served by the international payment systems (IPS) Visa and Master Card. This means that all fees, charges and commissions, which banks pay for hosting and maintenance of card transactions, have a value, expressed in dollars. As a result of a devaluation of ruble, commission expenses of banks significantly increased [3].

Discussions about the feasibility of the National System of Payment Cards (NSPC) became more active, when a number of Russian banks refused to carry out the transactions with the help of payment systems Visa and MasterCard by a number of Russian banks due to sanctions in March 2014. After only a few months, on July 23, 2014, the joint stock company "NSPC" was created. This company created an operational and clearing center for processing national transactions by the means of cards of international payment systems, as well as the development and promotion of own national system of payment cards. In accordance with the Federal Law №319-FL from 22.10.2014 "About amendments to certain legislative acts of the Russian Federation" all credit institutions and payment systems in the Russian Federation are to organize interaction, to receive operating services from the NSPC operating center and payment clearing services

from NSPC payment clearing center. Order, terms, conditions, and cases of these operations are determined by Bank of Russia regulations and corresponding NSPC rules [5]. Thus, a new important player appeared in the Bank cards market of Russia. And the process of development of cashless payments in the country depends on the activity of this important participant.

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