

# ГРОШІ, ФІНАНСИ І КРЕДИТ

UDK. 336. 717

## ANALYSIS OF BANK PAYMENT CARDS MARKET IN UKRAINE AND PROSPECTS OF ITS DEVELOPMENT

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*Стаття отримана редакцією 23.05.2017 р.*

**Introduction.** It is well known that nowadays, payment cards occupy an important position in modern society. Over the time, the number of cards types and their respective range of services are becoming more and more. As the experience of developed countries shows, rational organization of the payment cards market contributes to improvement of financial and credit relations, effective functioning of financial sector as a whole, providing of effective functioning of national economy, as well as implementation of intergovernmental monetary payments. Bank operations related to the card business development should be considered as the most perspective and profitable ones. Thus, the analysis of the current state of the payment cards market, in order to research the main problems of its development, is extremely actual today.

**Review of recent research and publications.** In the present state of social and economic relations, there has been a growing interest in the problems of payment system development, of both domestic and foreign scientists and economists. For instance, such scientists and economists as Katyukha K. [1], Kharchenko V. [2] investigated the issue of the payment cards market of Ukraine, Kapralov R. [3] studied the place and role of bank payment cards in national development, Herasymova S. [4] and Kiryeyeva K. [5] highlighted trends of introducing card payment instruments and others. At the same time, Ukrainian bank payment cards market refers to those called emerging markets, therefore many aspects of this problem, considering the characteristics of the modern economy, require more complete and substantive research. So there is the question of determining the main problems of its development and investigating the ways to overcome them.

**Aim of the article.** The aim of the research is to analyze the payment card market in the current national economic development, to identify the main problematic issues of bank operations with the payment cards, as well as to suggest ways to overcome them.

**Statement of basic material.** At the present stage of development of financial and economic relations the market segment of the card business attracts banks attention more and more. As the money is in the accounts and not in the clients' pockets, the bank can use the funds and manage account balances more flexibly, receive commission for customer and retail outlets service. With the cards, customers can receive their salaries and pension payments, order and pay in retail networks for various services, make bank transfers and obtain loans.

According to the article 1 of the Law of Ukraine «On payment service providers and money transfer in Ukraine» of April 5, 2001, № 2346-III payment card is a special payment mean in the form of a plastic or other card issued according to the established procedure, that is used to initiate a money transfer from the payer account or the respective bank account with the purpose of paying for goods and services, money transfer from the holders account onto another persons account, cash withdrawal from the bank cash offices and other transactions stipulated by the existing agreement [6].

The peculiarity of non-cash payments with plastic payment cards is the actual sale of goods by outlets in credit. That is because goods and services are provided to customers immediately, but funds on current accounts of entities, which provide services or goods, will be transferred later. Therefore, the guarantor of the implementation of such operations is the bank that issued a payment card (issuing bank). That is why all the

cards offered for the use by the issuing bank to its customers are its property. Customers (cardholders), who received a payment card for use in fact, are the cards renters during their validity period.

Card market in Ukraine began to form in 1994 – 1995, when several banks started cooperation with international payment systems VISA and MasterCard. Nowadays, the Ukrainian banking payment cards market is in the stage of «emerging market». The research revealed that currently there are two characteristic features of the emerging card market in Ukraine:

- dominance of debit cards over credit cards (Table 1);
- low level of competition and market unsaturation [8].

**Table 1**

**Types of payment cards issued by Ukrainian banks**

Data as of:	Payment cards(thousand pcs)							
	Total	By types of storage media:			By payment scheme		By types of holders	
		With magnetic stripe	With magnetic stripe and chip	With chip	With debit function	With credit function	Corporate	Personal
01.01.2007	32 474	30 266	802	1 300	26 396	6 078	304	32 170
01.01.2008	41 162	38 676	771	1 518	31 117	10 045	415	40 747
01.01.2009	38 576	36 123	729	1 558	29 544	9 032	485	38 091
01.01.2010	29 104	27 092	588	1 348	23 916	5 188	433	28 671
01.01.2011	29 405	27 438	602	1 236	23 786	5 619	332	29 073
01.01.2012	34 850	32 022	653	1 188	26 670	8 180	364	34 485
01.01.2013	33 106	31 238	1 014	741	25 029	8 077	353	32 753
01.01.2014	35 622	33 277	1 536	623	26 828	8 793	390	35 232
01.01.2015	33 042	30 009	2 370	416	25 491	7 551	356	32 686
01.01.2016	30 838	27 586	2 766	194	24 794	6 044	390	30 448
01.10.2017	32 389	27 994	3 876	74	29 398	2 991	467	31 922

At the present stage of the Ukrainian banking system development, the introduction of cards of international payment systems unfolds quite quickly. The interest of Ukrainian banks for international payment systems is fairly logical. The issue of international banking cards allows for integration into the global system of banking services, raising image of the bank, conquering the market and attracting more customers. Participation in the international card system provides the bank an opportunity to learn the latest banking technology by using a powerful infrastructure for making payments on a global scale.

As a result of our research of the practice of the Ukrainian card market functioning, it was discovered that the number of corporate cards in the total structure of issued cards is 1.4%, while the number of private cards is 98.6%. Consequently, banks will not operate profitably without private customers. It is important to add that by the type of storage media the cards with magnetic stripe predominate (86.4%), while the issuing of cards with chip tends to decrease (Table 1).

According to the data of the National Bank of Ukraine as of 01.01.2017, number of active payment cards was 32.4 million pieces, or 780 per 1,000 persons, ATM – 33.8 thousand, or 8 units per 1,000 persons. The total number of issued banking payment cards that were in circulation in Ukraine as of January 1, 2017, was reduced to 12.9 million pieces – up to 57.6 million units in comparison with the beginning of the year 2015 (Table 2).

**Table 2**

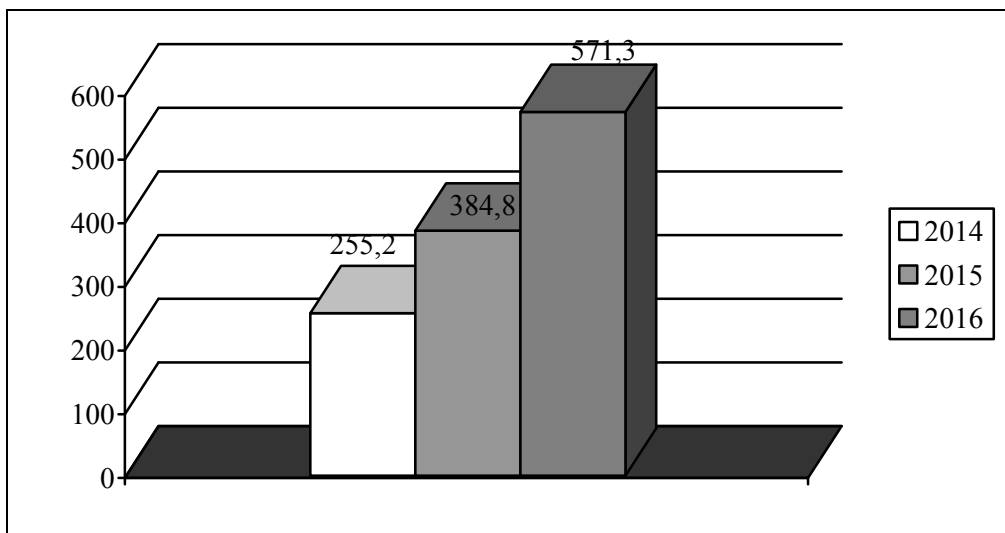
**General information about the number of customers, payment cards and payment devices**

Data as of:	Banks-members of card payment systems (pcs.)	Cardholders (thousand people)	Payment cards (in circulation) (thousand pcs.)	Payment cards (active) (thousand pcs.)	ATM (pcs.)	Terminals (pcs.)
01.01.2009	139	37 232	45 346	38 576	27 965	116 748
01.01.2010	146	39 395	44 469	29 104	28 938	103 063
01.01.2011	141	39 942	46 375	29 405	30 163	108 140

01.01.2012	142	35 179	57 893	34 850	32 997	123 540
01.01.2013	142	44 339	69 826	33 106	36 152	162 724
01.01.2014	143	49 719	69 726	35 622	40 350	221 222
01.01.2015	128	51 649	70 551	33 042	36 596	203 810
01.01.2016	98	43 058	59 307	30 838	33 334	194 478
01.01.2017	87	41 746	57 633	32 389	33 783	219 241

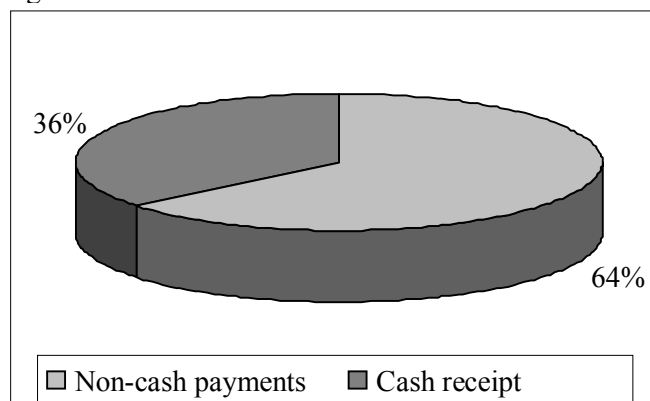
As one can see, the number of active payment cards during the last year increased by 1.6 million units – from 30.84 to 32.39 million units. The number of cardholders decreased by 1.3 million persons – down to 41.7 million people, the number of banks-members of card payment systems during the year decreased by 11 to 87 institutions, the number of ATMs increased by 449 units to 33.8 thousand units [9].

Among all banks the leaders in the number of payment cards and the infrastructure of their service as of January 1, 2017 were «PryvatBank», «Oshchadbank» and «Rayffayzen Bank Aval». At the regional level, by the number of payment cards and their services infrastructure Kyiv, Dnipropetrovsk and Kharkiv regions demonstrated the greatest progress [10]. During 2016, the Ukrainians have made non-cash payments by using payment cards in the amount more than in the past two years (Fig.1).



**Fig. 1. Non-cash transactions volumes (bln. UAH)**

The ratio of cash and non-cash operations by cards issued by Ukrainian banks as of the beginning of 2017 year is presented on Fig. 2.



**Fig. 2. The proportion of the total number of transactions with payment cards**

As shown on Figure 2, non-cash payments dominated, which confirms the fact of growing attention to the cards because of the benefits that all members of payments receive from their use. For the cardholder it is the ability to obtain bank services or to pay for the goods, regardless of the banks work time and country of residence. For enterprises of trade and service it is increase of sales and attraction of new customers. For banks it is the possibility of obtaining cheap credit resources, and provision of banking services to new social

groups, reduction in the volumes of processed cash and, last but not least, the bank's image improvement [11].

Banking non-cash payments in Ukraine, including the use of payment cards have reached a high level of development over the last 10 years. This was facilitated by the activities of the National Bank, as a regulator of the system of mass electronic payments in the sphere of information technologies implementation in the activities of national banks, development and implementation of real effective contemporary normative documents, which meet the requirements of time for development of domestic card business [5]. The idea of creating in Ukraine the national system of mass non-cash payments originated more than twenty years ago, when the National Bank of Ukraine approved the Concept of electronic payments for goods and services in Ukraine. A distinctive feature of NSMEP in comparison with the international payment systems Visa and Master Card, is the predominant use of off-line mode. An important advantage of using the off-line mode is the high payment transactions speed (1-2 seconds for cards NSMEP against 30-120 seconds for cards of international payment systems) and the ability to work without high-speed telecommunication channels [12].

On 01.01.2017 NSMEP members (in 2016 the name was changed to the «Ukrainian payment space» («PROSTIR» in short) are 48 Ukrainian banks. The total number of issued cards is about 625 thousand, terminals – 159 thousand, ATM – 14 thousand. Leaders in the number of issued NSMEP cards are «PrivatBank», «Oschadbank» and «Rayffayzen Bank Aval» [13].

A critical review of special literature and our own research have proved that along with perspectives of wide introduction of cashless payments for goods and services there are a number of problems hindering their development in our country, the main of which are the following:

1) Low level of consumers' awareness about the varieties of card payment instruments offered by the banking system of the state. Consumer awareness of different types of banking services in this sphere will allow them to choose the optimal product according to their needs, incomes and lifestyle.

2) Poorly developed market infrastructure (ATMs – slow recoupment, technical disparity with modern requirements, terminals – lack of sales outlets interest in installing them, cautious attitude to non-cash forms of settlements).

3) Weak information security of payment cards. It should be noted that card criminals, as a rule, are clearly organized crime groups, which consist of experienced specialists of narrow specialization. Therefore, to improve counteraction to these types of crimes it requires a clear organization and interaction of law enforcement bodies.

4) Low level of effectiveness of banks salary projects. Participants of payroll projects are customer base. However, despite the undeniable advantages of payroll card programs, they can become a significant hindrance to the normal functioning of the enterprise.

Since the use of payment cards is a form of non-cash payments that requires the most improvement of infrastructure services on the financial market, we believe that the main feature of their further development should be orientation to the international aspects in shaping the payments market, which envisages the following ways of the payment cards market development (Fig. 3).

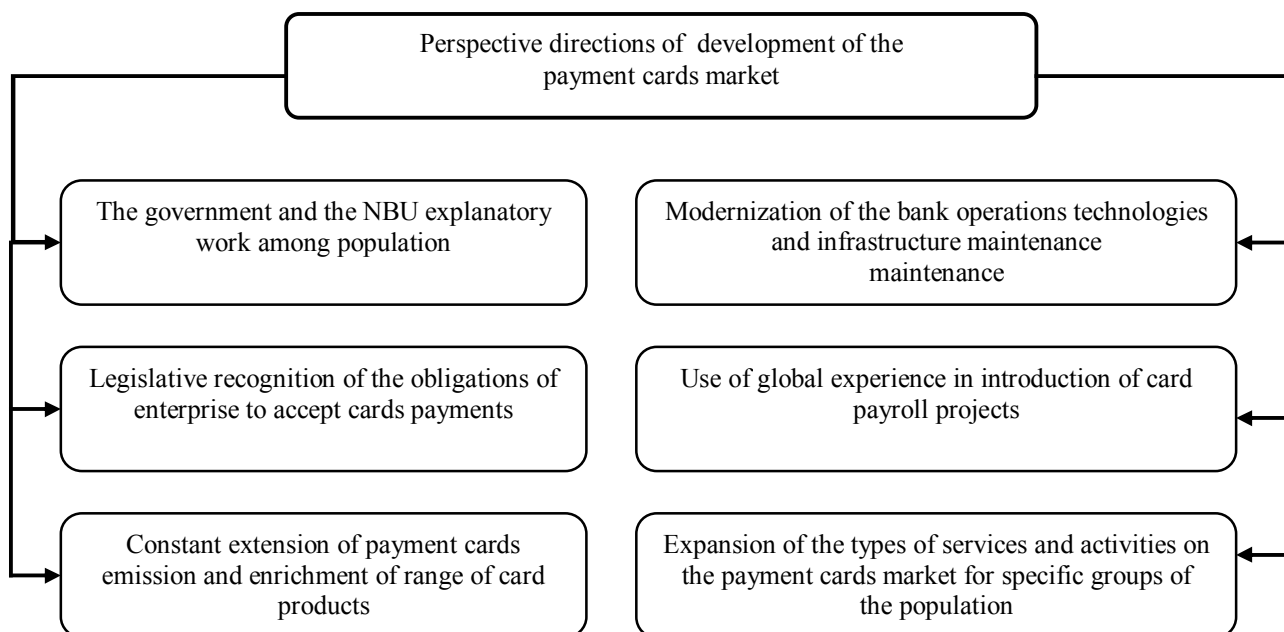


Fig. 3. Perspective ways of development of the payment cards market in Ukraine

Detailed description:

1) Conducting explanatory work among population about the effectiveness and expediency of the use of payment cards by government and NBU. Permanent organization and implementation of advertising and educational campaigns and carrying out work to improve financial literacy of Ukrainians. An important direction of improving efficiency of card technologies is marketing of financial services to provide commercial and service companies with consultation on payment cards, free provision of consumables and equipment during the period of cooperation.

2) Reducing the transactions time; increasing protection against counterfeit-cards; bank guarantee of transactions defrayment, carried out by customers; providing the necessary staff training.

3) Introduction of the latest technologies for the realization of state and corporate projects, their study by public management and political figures. State incentives for the implementation of payment cards by establishing the preferential treatment of amortization of high-tech equipment. Introduction of tax benefits for market participants, creation of an appropriate legal framework.

4) Creating new software products by studying the experience of foreign countries, which will contribute to the information security of payment cards. Credit institutions should be encouraged to innovate in the development and improvement of cashless disbursements by using payment cards.

5) The legislative recognition of the obligations of enterprise to accept cards payments. Relevant standards and technologies should become national and be used widely by trade and banks.

6) Banks should do more to offer employees open credit limits for payroll cards. A positive trend in the market of salary projects is the development of cross-selling programs, which purpose is to sell new services to existing clients. Also it is reasonable to use the global experience of introduction of the card salary projects according to a certain scheme, when employees can choose their own bank.

7) To increase the level of card business income, banks should continue to enlarge the volume of the payment cards issue, constantly enriching the range of card products. It will be profitable if the banks expand their business to pensioners and students, in particular focusing on the perspective direction of crediting of people of retirement age. Improving the technological capabilities of the ATMs, developing the infrastructure service (increasing the network of ATMs and POS terminals, including their technological properties is an important issue for banks, as well as the installation of imprinters in commercial areas etc). Providing additional services to cardholders, in particular overdraft loan on the debit card; reducing the rates of interchanging, that will enhance attractiveness of the acquiring network for commercial enterprises and, as a result, will increase cashless turnover [14].

To achieve the standards of developed countries at least 100,000 points of service should be installed in Ukraine (based on the number of population in the country). However, Ukraine is catching up with the benchmark of developed countries in number of issued cards. The share of cash payments in our country, as well as worldwide, is steadily declining. Financial experts believe that the percentage of cash payments in our country shall not exceed 10% of cash flow. There is no future in cash transactions, as the organization of cash money circulation requires considerable costs from the state. In addition, the rising of the proportion of cashless payments is an important factor of overcoming the shadow economy, which is particularly relevant for the countries with emerging economies, which also include Ukraine, where the illicit economy sector produces almost half of the GDP [11].

Part of the strategic program of the National Bank of Ukraine is to increase the share of «PROSTIR» cards on the market up to 30% of the total emission until 2020 (Fig.4). This will ensure the protection of national interests on the financial and credit sphere, reduction of the foreign exchange component of the commercial banks costs to service their own issue of payment cards, the decrease of tariffs for separate services for banks and cardholders [15]. Of course, the situation in Ukraine will be affected by context in Europe, where a sharp growth is expected over the next five years on the market of prepaid cards.

Thus, in the near future the number of cards will grow to 40 million, while the number of prepaid transactions will reach 150 million UAH. It is predicted that the 58% of all purchases will occur via prepaid cards bearing the brands of international payment systems Visa International and MasterCard Worldwide. New impetus to the development of electronic money on the card carriers in Ukraine, as anywhere in the world, will be given by the further implementation of contactless technology [16].

It is hoped that the proposed recommendations will improve the payment cards market and increase the efficiency of its functioning.

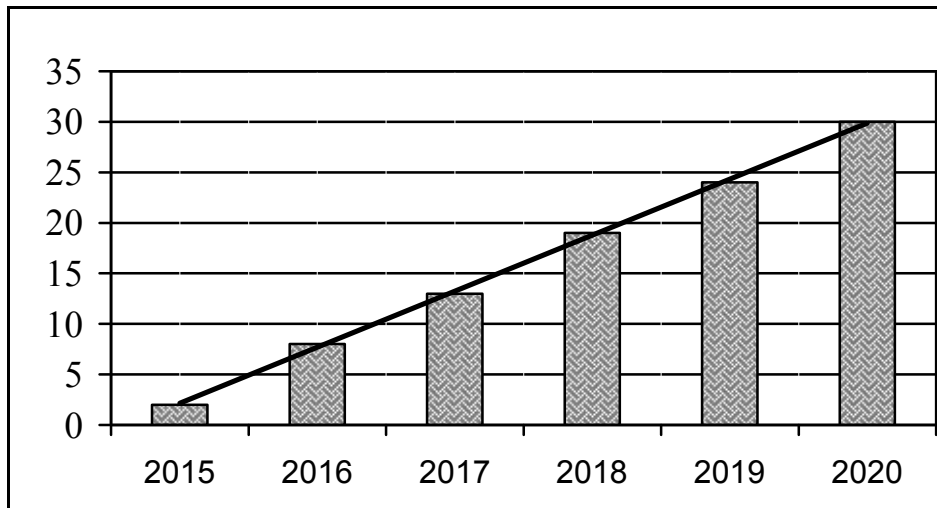


Fig. 4. Growth dynamics of share of the «PROSTIR» cards on the market of Ukraine up to 2020

**Conclusions.** Analysis of the card market has proved that the situation on the market of plastic cards in our country, though it is different from that in developed countries, but is gradually changing for better. Despite the economic problems in Ukraine, the national electronic payment system («PROSTIR») is gaining momentum. Its goal is the further escalating of the share of its cards on the target market. Problems in this aspect have an impact on almost all the spheres of social life and are essential factors for the existence of a modern payment system. The total number of transactions with payment cards is dominated by non-cash payments; this share is assumed that will continue to increase over the years. Therefore, this confirms the fact of increased attention to the cards because of the benefits that are provided to all participants of settlements with use of them.

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UDC 336.717

**Nelia Volkova**, Ph.D, Associate Professor of the Finance and Banking Department. Poltava National Technical Yuriy Kondratyuk University. **Kateryna Gogolyeva**, Student. Poltava National Technical Yuriy Kondratyuk University. **Analysis of bank payment cards market in Ukraine and prospects of its development.** The current state of bank payment cards market in Ukraine and the main prospects of its further development have been analyzed in the article. The general characteristics of the payment cards development have been determined. The bank operations problems, associated with payment cards have been investigated, as well as the ways to overcome them.

**Keywords:** payment card, bank payment card market, issuing bank, non-cash payments, bank operations.

УДК 336.717

**Неля Іванівна Волкова**, кандидат економічних наук, доцент кафедри фінансів і банківської справи. **Катерина Сергіївна Гоголева**, студентка. Полтавський національний технічний університет імені Юрія Кондратюка. **Аналіз ринку платіжних карток та перспективи його розвитку.** У статті проаналізовано сучасний стан ринку платіжних карток та основні перспективи його подальшого розвитку. Висвітлено загальні характеристики розвитку платіжних карток. Досліджено проблеми банківських операцій, пов'язаних з платіжними картками, а також розроблено шляхи їх подолання.

**Ключові слова:** платіжна картка, банківські операції, картковий ринок, банк-емітент, безготівкові розрахунки.

УДК 336.717

**Неля Ивановна Волкова**, кандидат экономических наук, доцент кафедры финансов и банковского дела. **Катерина Сергеевна Гоголева**, студентка. Полтавский национальный технический университет имени Юрия Кондратюка. **Анализ рынка платежных карточек и перспективы его развития.** В статье проанализировано современное состояние рынка платежных карт и основные перспективы его дальнейшего развития. Определены общие характеристики развития платежных карточек. Исследованы проблемы банковских операций, связанных с платежными картами, а также разработаны способы их преодоления.

**Ключевые слова:** платежная карточка, банковские операции, карточный рынок, банк-эмитент, безналичные расчеты.