STATISTICAL RESEARCH OF BANK CARDS USE
BY THE POPULATION OF THE REGION

© 2010 A.V. Milyutkin*

Keywords: bank book, the market of bank books, active bank books, the system of non-cash payments, active cards, the system of statistic indices, model.

The author shows the necessity of carrying out the statistic research of the intensiveness of the use of banking cards by the population of the region. The system of statistic indices is formed for accomplishing the aims of the research, it consists of the block of factor and result indices.

The market of bank cards is one of the most promising segments of the banking business. Its development is a key factor for solving the problems of the increased access to payment services for the population, reduction of cash and the development of cashless transactions in the area of retail payments. The universal nature of bank cards gives an opportunity to successfully solve various problems not only in financial, but also in the social sphere. Therefore, the market of bank cards can serve as an indicator of the banking system development, the level of banking culture, the well-being of population and trust to banks.

Statistical research of the factors creating demand for services using bank cards and search of ways for improving the use of cards by the population are now actual questions not only for credit institutions but also for the government.

The development of the federal program "Electronic Russia", the projects "Social card for the region population", building a national Russian payment system based on bank cards can't be isolated from the theoretical study of the use of bank cards by the population.

The scale of these projects presumes their regular and detailed monitoring to ensure their effective development and the desired effect. It means full involvement of the population in these projects and extensive use of bank cards are the main tool of these projects.

Moreover, a good analysis of reason factors, their influence on the resulting factors and identification of patterns are not only a methodological base, but also the key for successful implementation of these projects according to their mass and social orientation.

Payment system using bank cards is based on the latest achievements of electronics and information technology. Cards serve not only as an independent tool of payments, but as a unified and universal key for most electronic queuing systems.

The bank card is the basic tool of the payment system. But at the same time, the essence of the card business is not only in the distribution of cards but also in organizing a well-functioning system of cashless payments using cards and service system that provides cards job and their demand among the population.

Let's consider the typical scheme of cashless payment system using bank cards, its main participants and information links between them.

In such system there are three basic participants:

1) The issuing bank;
2) The point of service;
3) The card holder.

The issuing bank is the credit organization that issues and acquires bank cards of its clients.

The point of service (POS) is the place where the card-holder can get the service using a bank card. POS may be not only trade and service enterprises. Bank department and the self-service systems (ATM, bank terminal) can be considered POS, too.

As it has already been noted, a bank card is a modern payment instrument. Bank cards are issued to the population for the possibility of cashless payment transactions in trade and service enterprises, as well as for receiving cash in the cash points and bank ATMs.

Let's try to answer the questions of how essential bank cards are for the population and what the intensity of the use of cards by population is.

To assess the expansion of bank cards we can use the data of the issue of cards in the

* Alexander V. Milyutkin, post-graduate student of Samara State University of Economics. E-mail: cards@pvbsbrf.ru.

Block of the output indicators

№	The volume indicators	№	The relative indicators
1	Number of cards	1	Average number of transactions per card
2	Number of financial transactions	2	Average amount of one operation
3	The amount of financial transactions	3	Average number of cash transactions performed from one card
4	Number of cash transactions	4	Average amount of one cash transaction
5	The amount of cash transactions	5	Average number of payments for goods/ services on a single card
6	Number of payments for goods/ services	6	Average amount of one payments for goods/services
7	The amount of payments for goods/ services		

region provided by all the issuing banks. However, this figure does not reflect the real situation of demand for cards in the population of the region and the intensity of their use.

The rate of emission of bank cards includes the so-called 'not working cards'. The proportion of such cards in the overall portfolio of emission is sufficiently high and reaches 50%. That's why the rate of emission does not provide complete and objective picture of the demand for bank cards in the region.

In the study performed by the author the term "active cards" means the cards on which transactions (cash withdrawals, payment for goods and services) were performed by cardholders in the reporting period.

It should be noted that besides the volume indices characterized directly by the total number of transactions performed using credit cards and by the total volume of financial transactions that have passed on the accounts of cards, it is advisable to consider the qualitative (relative) indicators of the intensity of use of bank cards by population. They are the average number of transactions per card and the average amount of one transaction for each group of operations.

These parameters characterize the intensity of use of cards and, as a result, the level of demand for cards by the region population.

In this case, the volume and relative indicators represent only the final result of the use of cards by the population.

It is advisable to analyze and identify the factors influencing this result and to find causal relationships and identify the patterns of receiving the resulting value.

Thus, we are faced with the task of statistical study of factors creating demand for services with the use of bank cards followed by assessing the effectiveness of the use of bank cards by the population on the regional level.

Obviously, the outcome is influenced not only by the activities of credit institutions in the region on the bank card market that can be attributed to internal factors, but also it is influenced by the totality of the factors that are external to the market of banking cards.

In the composition of external factors, we can distinguish groups characterizing of the socio-economic level of the region development:

♦ Population structure;

♦ The employment;

♦ The well-being of population;

♦ The development of social sphere;

♦ The development of trade and services;

♦ The level of economic development in the region;

♦ The entrepreneurial activity of the population;

♦ Financial sector development;

♦ Evolution of prices in the consumer market;

♦ Development of network of card service.

However, we should select from the official regional statistics database such indicators that characterize the socio-economic processes both directly and indirectly related to the service of the card-holders.

Thus, for the purposes of the study it is necessary to establish a system of statistical indicators, consisting of two blocks: the factor indicators and the output indicators (see table).

The resulting statistical research model which reflects the quantitative regularities of the influence of socio-economic factors on the intensity of the use of bank cards by population in the region, will be a necessary instrument for managing the process of bank cards' use by population on the regional financial market.