

ORIGINAL CONTRIBUTION

## Development of Bank Innovations

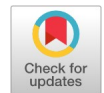
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**Abstract**— The aim of the study was to study banking innovative products, their classification and presentation of the quality of innovations in the banking system of Georgia. Specifically, banking services in Georgia are gradually expanding and improving. It can be said that the use of plastic cards in the banking system of Georgia is incomparable with the situation in developed countries. Thus, this study is based on a scientific study of modern and innovative methods of banking services and research on the example of commercial banks in Georgia. In this research methods of analogy, abstraction, statistical observation, system approach, and comparative analysis methods were used. The results highlight that the banks aim to reduce the risk level during the crisis and to remain the residual risk after the crisis period. Global financial crises were experienced in recent years. The bank industry became the most sensitive field regarding the financial crisis. Because the risks are associated with all banking operations regardless of the crisis, therefore the financial risk management should take place daily in financial institutions. The study of introduction of new banking technologies in the banking system of Georgia is important as the presence of innovations such as plastic cards is the basis for the functioning of the country's economy.

**Index Terms**— Banking System, Bank Industry, Financial Crises, National Economy, Plastic Cards.

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### Introduction

At the present stage, when the world economic crisis is increasing, it is especially essential to adopt bank service and to be aware of its characteristics (Pailodze et al., 2016; Parameswar et al., 2017). Providing with money resource to civil thrift represents the knot of the market. They perform distribution of money resource from scarce branches to the surplus ones (Chen et al., 2017). Contemporary banks not only trade with money, they are also market analysts, according to this, banking system is undergoing everyday transition from one step to another (Zhao et al., 2019). The purpose of this paper is to reveal the bank service modern methods and the structure itself.

The aim of the study is to study banking innovative products, their classification and presentation of the quality of innovations in the banking system of Georgia. Therefore, it is necessary to solve several interrelated tasks: Studying banking in Georgia, defining the essence of banking innovations and classification of plastic cards.

### Literature Review

The literature includes all important aspects of the banking system and commercial banks. It is worth mentioning the works of Georgian scientists Tsaava & Khantadze (2015); Tsaava & Bibiluri (2019). Current literature deals with such emerging issues as: emergence and development of banking, central banks, banking management, banking marketing,

banking innovations, the importance of the banking system for the country, etc.

The transition to market economy in Georgia shows how much of the importance of commercial banking activities is in the modern stage. In particular, the function of credit system is of great importance. Therefore, in Georgia, the work on the concept of banking activities, its refinement and development is taken into consideration by the Georgian legislation (Sulashvili & Sujashvili, 2018).

The evaluation of the investment project is that the investor must make a decision about investing or refusing the project to provide information. When evaluating an investment project, it is important that financial appraisal and economic appraisal be both, and both approaches are complementary. The evaluation of an investment project consists in translating project documents into cash flows, and the interests of the participants will be reflected in the formulas that will be taken into account for the cash flows for these interests (Sulashvili et al., 2019; Tahir & Athar, 2018).

Credit risk certainly stands as a cornerstone of the banking system. Georgian commercial banks manage credit risk using a comprehensive risk management system. The management framework comprises an organizational structure, methods and models, quantitative and qualitative management tools and regulations and processes (Lomaia & Gogolashvili, 2019).

Opportunities for analysis in Georgian practice are limited, where there is no uniform normative basis for analysis across different sectors of the economy (Pailodze & Kutateladze, 2018; Tsaava & Bibiluri, 2019).

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## Research Methodology

Current study is developed on the basis of the works of Georgian and foreign scientists. The study of information and analytical work of foreign scientists has played a large role in the research process. The study was based on a scientific study of modern and innovative methods of banking services and research on the example of commercial banks in Georgia. In this research methods of analogy, abstraction, statistical observation, system approach, and comparative analysis methods were used to perform analysis and draw inferences.

## Results and Discussion

Institutions like the bank were still at the beginning of the centuries, the main function of which was tax mediation. Intermediate banks turned into income (Razalli & Hasnan, 2017; Rose, 2012). Like most of the world's most ancient civilized countries, monetary relations in Georgia have a long history. The countries on the territory of Georgia - Iberia and Kolkheti, various types of credit institutions - were the institutions of Zaraphs and Orders, which represent the precursors of the modern banking system.

XI-XIII centuries Georgia was involved in world trade, as a result of which credit institutions appeared. From the second half of the 13th century, when Georgia became a continuous struggle, materials about any credit institutions are no longer available in historical sources. The first Georgian bank in Georgia was established on June 28, 1875 in Tbilisi under the leadership of Ilia Chavchavadze, then in 1876 under the leadership of Niko Gogoberidze.

The State Bank of Georgia began operations in July 1920. Its main function was the stability of monetary circulation and the monetary stability of the republic, as well as a short-term loan for the development of trade, industry and agriculture. Jason Lortkipanidze, a prominent Georgian financier, was elected the first chairman of the State Bank of Georgia. Despite its existence, the bank managed to accomplish many useful and important tasks for Georgia: it carried out a monetary reform, created important currency reserves.

After February 21, 1921, when the Soviet system was established in Georgia, the country lost its independence, and the state's "state bank" established the territory and stopped it. From this point on, the General Bank functions as the "Bank of the Soviet Socialist Republic of Georgia".

A new stage in the history of the development of banking in Georgia begins in 1991. In 1991, Optimal Law laid the foundation for creating a bilateral banking system in Georgia and determining who and how regulates monetary relations and plays a role in this direction. From the first days of the creation of the country's central bank, the National Bank of Georgia, which is a strong state-economic institution.

The efficiency of the Bank's work largely depends on the introduction of new banking products and technologies (Baratashvili et al., 2015; Kokrashvili et al., 2016). A new banking product can be of two types: single and mass. The product is an individual product and has only its own characteristics. A single banking product has a clear circle of its buyer. That's why it's all about specific users.

Mass banking product - the product of an indistinguishable person. He has no special features. Bulk banking product is classified only by product

or financial assets. A new banking product may be: limited and unlimited. New banking products are also: property and property rights. The transition to new forms of economic relations led to the restructuring of the banking system and the introduction of new program forms of payment, which are accompanied by plastic cards. A bank plastic card is a type of financial card that is personalized taxes intended for payment of goods, services and cash in banks.

When personalizing a card, it is personalized: data will be provided to identify the card and its owner, as well as to verify that the card can be paid or withdrawn cash. Proof of sale or cash. A plastic card allows its holder to take cash and non-cash at any time to enjoy various discounts on goods and services.

There are various criteria for the classification of plastic cards:

1. By recording information on the card: A graphic entry; stamping; Barcode coding; Magnetic Encoding; chips; Laser recording (optical cards). The earliest and simplest form of recording information on a card was a graphic image, which is still used in all cards, including the most technologically advanced. Recording information on the card was used with barcode support.
2. Made of material: plastic; metal;
3. Based on the calculation mechanism: bilateral systems; Multilateral systems;
4. General purpose: identification; information; For financial transaction;
5. Types of calculations: credit cards; Debit cards; Manual warranty cards;
6. Customer category: regular cards; Silver cards; Gold cards; Electronic card
7. Use of nature of use: individual; families; Corporate;
8. Depending on the issuing institution: bank; a commercial; Cards issued by organizations, the issuance of plastic cards and the creation of their service infrastructure are directly considered;
9. Use of Universal; Private commercial
10. Territoriality: international; National; Local; According to one particular institution;
11. Use of time: limited by time interval; Unlimited.

Magnetic recording is one of the most common ways to transfer data to plastic cards. A more reliable way to record information turned out to be a chip or a microcircuit. Cards are also often called smart cards or smart cards. Almost all Western companies that issue financial cards in the modern market are starting to offer customers a product such as a smart card. The plastic card was patented by the scheme in 1974. Despite the obvious advantages, chip cards are still limited and mostly distributed in France. Specialists have two types of chip cards: memory cards and microprocessor cards. Large capacity is available with optical memory, which uses WORM technology, similar to that used in laser discs. Microprocessor cards are real smart cards equipped with circuits including a microprocessor and an operating system. The architecture of the microprocessor unit built into the card allows you to configure the device to encrypt data. The cardholder is exempt from the stand on the item; Plastic card contributes to savings. The disadvantages of a plastic card are: the inability to count "plastic money" without special equipment; Do not have real documents if necessary in court or other institutions.

Currently there are the following types of international tax systems:

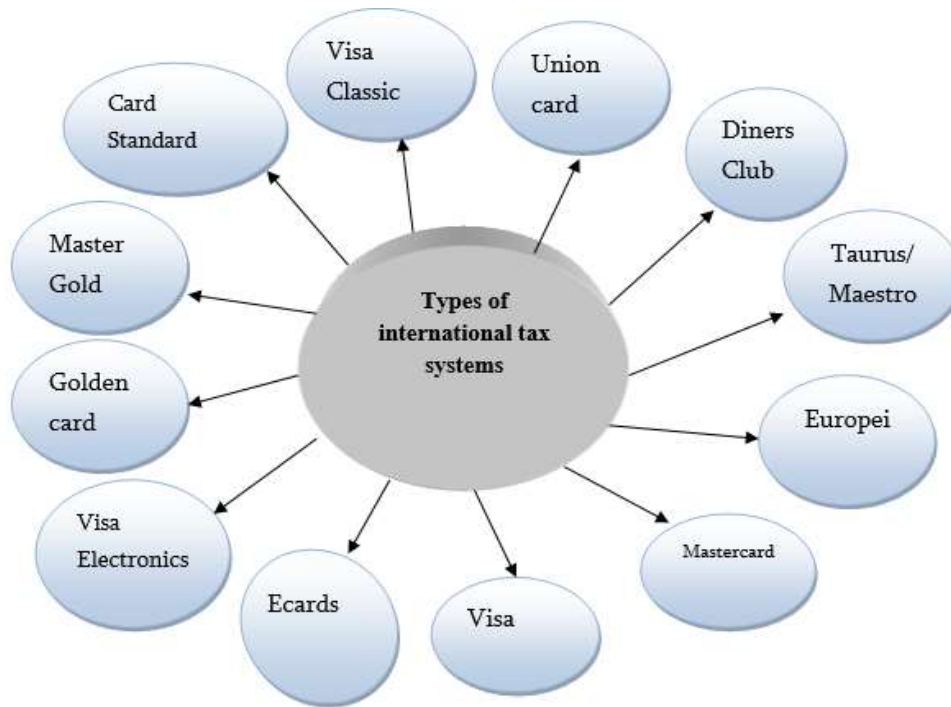


Fig. 1. Types of international tax systems

Plastic cards, as a type of payment, have long been in international practice and are widespread. Their first beneficiaries were foreign corporations. The first card, which served for settlement in restaurants and shopping centers, was the "Danish Club", which appeared in the United States in the late 40s.

Georgia's banking system can be divided into three phases in the 1990s: Phase I, when the institutional framework for banking was created. Stage II was characterized by an extensive increase in hyperinflation. Stage III - the period from 1995 to the present. In 1997, Georgia was first founded in Georgia, and in the same year, the first Georgian plastic card "Georgian Card" was issued. There are also disadvantages, such as possible fraud, the inability to protect "plastic money" without a plastic apparatus, in court or, in the case of other necessity, no real documents.

It is prestigious to use the card when paying. In addition, he has the opportunity to use modern methods that are used in the financial sector. There are other measures: benefits for the purchase of goods, restoration of lost and stolen cards, payment for hotel seats, purchase of airline tickets.

Cards allowed banks to transfer spatial restrictions on attracting customers and providing services. The card allowed the client to conduct operations from the bank, adjust the account in Georgia, and receive money in the automatic system.

To improve service, most banks offer additional services to owners of corporate and private cards, such as:

- Carry out ATMs in the area of enterprises
- Serve free cards
- Cash collections are made on a monthly basis, balances on the card account, followed by capitalization
- Ensure cash withdrawals in points of issue of money

TBC Bank represents the Bank in Georgia. In 2004, TBC Bank raised VISA card acceptance terminals at trade and service centers of Georgia. At the end of the year, TBC Bank launched services to provide chip plastic cards. Plastic card chip technology TBC Bank has been operating for 4 years. The Bank of Georgia was a pioneer in introducing new banking

technologies, in particular in the form of non-cash payments using plastic cards. Security is the most important point for online banking.

**Limitations and Future Research Directions**

This study is limited in scope. The main target of investigation was introduction and usage of plastic cards in Georgian banks, however, this study could be extended by investigating other innovative products and services introduced by Georgian banks. This will provide insights into adaptation and development of banking industry. Moreover, this study could be replicated in other regions to get a better understanding of innovation strategies of banking sector.

**Conclusion**

Banking services in Georgia are gradually expanding and improving. New innovative services and banking products are being introduced. It can be said that the use of plastic cards in the banking system of Georgia is incomparable with the situation in developed countries. Plastic cards are a tax method with the name of the owner, signature, card number, bank and logo of the selected system. The main feature of a plastic card is that it tracks the quality and amount of information regardless of the quality of technical excellence, since this is a progressive way of cash flow in non-cash cash flows. The introduction of new banking technologies in the banking system of Georgia is important. The Bank of Georgia has become a pioneer in the introduction of plastic cards. The presence of these innovations is the basis for the functioning of the country's economy.

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