Electronic Money in Electronic Banking

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Abstract

The Internet has definitely changed the world. For worse or better, the period ahead will show. It created great opportunities for the advancement of man, but also created a suitable ground for various criminal activities. We can freely say that today we have a virtual market, virtual banks, virtual stores, virtual stock exchanges, and even virtual money. Everything that we can call "real" has its parallel, "virtual" side. Although the world has already stepped into the virtual environment of the most up-to-date advanced techniques and technologies of electronic banking, our country and most of the surrounding countries will be satisfied for many years to come with a real and medium-developed environment of electronic banking. Electronic business (e-business) is the exchange of standardized electronic messages between natural and legal persons in negotiation, contracting, purchasing, selling, paying, communicating with administration and courts and in all other business transactions, for which its application is permitted by law.

Keywords: electronic money, technology, electronic business, internet

Introduction

The first forms of electronic money began to develop in 1993. And electronic money was then defined as a storage of monetary values on a technical device, which can be widely used for making payments without the necessary inclusion of bank accounts in the transaction.[1] The definition later acquired other features and expanded, and by electronic money is meant a monetary value that is stored in electronic form, on a microchip or hardware, while the transfer of monetary values is carried out through telecommunication networks such as the Internet.

The appearance and development of paper money showed that even paper banknotes, as a surrogate for money, whose value is practically negligible, can perform all the functions of currency money if they are guaranteed by a generally accepted authority - the state.[2]

The emergence of digital money shattered illusions about the necessity of a tangible physical medium - metal and paper - for money to function. If the value of money is guaranteed by a generally accepted authority, transactions will take place only on the basis of this information. Instead of placing the mentioned information on a physical medium, it can be framed in a series of digits that will move in electronic form through computer networks and be exchanged for products and services.

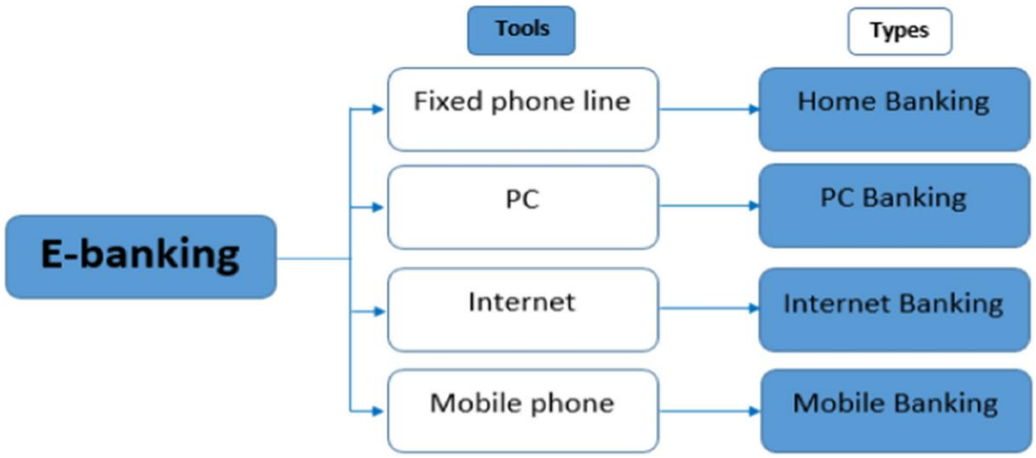
[1] Annual magazine "Bankar", Serbia, edition 1993, chapter: Modern payment instruments - electronic money
[2] Gregory N. Mankiw; Fundamentals of Economics, Zagreb School of Economics and Management Zagreb, third edition, 2006, Zagreb, p. 631-633

Electronic money is the greatest technical-technological achievement in the development of banking and belongs to the financial innovations related to payment technology. Electronic money is specific monetary information that is transmitted by means of electronic impulses in real time between transactors who make payments.

1. Characteristics, forms and payment systems

Electronic money contains the following important features, namely:

1. **Initial holder**.
   The owner of electronic money must pay the monetary value in advance, by storing it on a microprocessor chip located on a plastic card or in the hard disk of a PC. The owner of electronic money must buy a certain value of electronic money in exchange for conventional money, thereby making a payment in advance, because he buys in advance the desired amount of electronic money that he uses for payments. Thus, electronic debit card payments where the transactor makes the payment now (at the time of purchase) differ from debiting the customer's transaction account with the bank and credit cards where the transactor makes the payment later (within the agreed time limit). [3]
2. Electronic value. Electronic value must be widely accepted in payments for goods and services. The concept of electronic money does not cover those prepaid cards that can only make single-purpose payments, such as phone cards. Electronic money refers only to multi-purpose cards with a stored value that are used to purchase different goods from different sellers.



Picture: e-baking tools and types

The technology of using electronic money distinguishes two systems at the moment of payment, namely the following systems:

1. Cash system of using electronic money. CashTypeSystems involves the direct transfer of electronic money between participants in the payment transaction face-2-face, whereby the similarity between electronic and cash money is observed, and both can circulate between transactors for an unlimited time. In order to make a payment using this system, it is necessary to make a payment beforehand on an electronic device owned by the client, and the stored value

[3] Ćirović Milutin; Banking, European center for peace and development - Belgrade, second innovative edition, 2006, year Belgrade, p. 239-242

of the electronic money itself decreases during payment. Payments between transactors are considered final at the time of their execution, whereby the seller uses the received electronic value for further payments (the electronic value is not returned to the bank account).

2. In the deposit system of using electronic money. Deposits Type Systems means payment with electronic money as a temporary monetary transaction that is considered final at the time of transfer of funds between transactional deposits with banks. This form of money can be classified as network money. So that the card issuing company registers the prepaid amount to the special account of the transactor who is the owner of the electronic card. During payment, the electronic value is transferred from the card to the store's terminal, and the store empties its terminal, whereby the electronic money units are transferred to the store's account maintained by the issuer (electronic money issuing company). The balance from this account with the issuer of electronic money is transferred to the trade account at the bank, thus transforming electronic money into bank money (trade deposit at the bank).

2. Similarities and differences between traditional and electronic money

All these ways of using electronic money can somehow help us draw a parallel between traditional forms of money and electronic money. From the above, it can be concluded that there are still certain similarities and differences. Some of the similarities and differences are:

1. Security. With cash, the problem of security is reduced only to the problem of its physical security, while with electronic money, various methods of cryptography are used in this regard.

2. Exchange. Electronic money is most often used for remote payments and it knows no borders (there is no physical exchange of money), while physical exchange is completely present with cash.

3. Use of money. The creditor uses the received cash for further payments, while this is not the case with electronic money, because once received electronic money cannot be used further.

In electronic banking, the relationship between the Central Bank and electronic money is particularly interesting. The main questions are whether the Central Banks support or oppose the use of electronic money, then what are the possible consequences of using this form of money, what is their specific role and where does it lead in general. The central bank appears in the role of regulator of the banking system, and one of its roles is certainly the planning and implementation of monetary policy.

Electronic money can potentially increase the volatility of exchange rates. If we start from the assumption that electronic money is a representative of real currency, then there must be a certain exchange rate that will be valid for it. For this to be possible there must be a foreign exchange market in CyberSpace. Exchange rates in CyberSpace and in the real world should be equal. Exchange rates in CyberSpace and in the real world should be equal. Exchange rates in CyberSpace and in the real world should be equal.

Picture: possibilities with e-banking

3. Legal regulation

Electronic money transactions and electronic money systems impose numerous questions regarding their legal regulations based on the currently valid banking laws. Some of these issues are of primary importance for those who will use electronic money: consumers and commercial circles (issuers, payment servers, merchants), the Central Bank, policy makers and others who deal with monetary policy, foreign exchange issues and the functioning of payment systems. There are issues that are of equal importance to everyone. Legal regulations related to electronic banking differ from country to country.20[4] What is common to all is that the legal regulations must include:

1. Banking regulations. This refers to the issue of issuing electronic money and all related issues (who issues electronic money, the functions of the issuer of electronic money, and whether the issuer must have mandatory reserves).

2. Consumer protection. It is common knowledge that all countries have consumer protection laws. With the development of products based on electronic money and electronic commerce, the question arises whether consumer protection laws are applicable to banks that perform electronic money transactions.

Here are the two most important laws from their practice:

a) Law on Confidence in Lending - TILA[5]
   TILA and regulations derived from it apply to consumer lending transactions and oblige financial institutions to report and inform consumers of the nature of credit transactions and the interest that will be paid. TILA refers to the issuance of credit cards and cards for authorized access, to the creditworthiness of access devices, as well as to issues such as commissions, calculation errors, and the like.
b) Law on Electronic Money Transfer - EFTA.22[6]

[4] www.home.bankerinter.net/pond/pravni_aspekt_elektronskog_nov.
[5] The area dealt with by TILA is defined in the definitions of terms such as "creditor", "credit card", "card issuer" and so
[6] The area covered by the EFTA is determined by the definitions of the terms "financial institution" and "electronic money transfer".

EFTA and the regulations derived from it apply to the transfer of money through electronic terminals, telephones, computers or magnetic tapes that authorize or instruct a financial institution to approve or debit a consumer's account. This law requires consumers to be informed of the terms and conditions of such money transfer agreements and establishes rules regarding other issues, such as delivery of physical transaction receipts, error resolution, and financial institution liability for technical malfunctions.

3. Financial privacy of electronic banking users. One of the most frequently discussed problems related to electronic money systems is the problem of privacy, whether the mentioned laws and regulations regulate bank accounting, client financial privacy and similar problems concerning issuers of electronic money.

4. Commercial problems. The central question is who bears the risk of loss or unauthorized use of the stored value card.

5. Problems of Central Banks. One of the basic questions in this area is whether electronic signals on stored value cards or on computer disks in the case of digital money are "legal tender" or "money" ie. whether they embody value or are merely a means of exchange.

Picture: advantages of e-banking

Conclusion

Based on everything previously stated, we can conclude that the basis of successful electronic business lies in well-implemented measures and security control. Security control includes adequate verification of identity, authorization, logical and physical access control, secure infrastructure and credibility of transaction data, documentation and information. The main goal of data protection and preservation is the removal of sources of danger to which the system is exposed. It should be emphasized that absolute protection does not exist. Therefore, it is necessary to consider that the protection system does not provide absolute protection of data, but it is about methods that greatly reduce the dangers to which they are exposed.

The development of telecommunications, especially the Internet, will also lead to the development of purchases and payments through it, which is still in its infancy here. Users are satisfied with the benefits provided by the cards, but as said, it seems

that they do not yet know what they are satisfied with, because they use their possibilities relatively little in terms of places and methods of use. Electronic business is undoubtedly a leading trend and characteristic of modern life and work.