Electronic banking - Status and Perspectives

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Abstract **The payment system consists of regulations and structural organisation of all state payments. It is constantly developing and improving especially in the current situation. The main objective of this article is an attempt at analyzing the development of electronic financial services in Bulgaria, focusing on the role and application of the electronic bank products and technologies.**

Index Terms: **Electronic banking, payment system, mobile services.**

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I. INTRODUCTION

The payment system consists of regulations and structural organisation of all state payments. It is constantly developing and improving especially in the current situation. State-of-the art technique and modern technologies have been implemented, resulting in increase of account to account payment. The range of payment intermediation is one of the most significant features of the market economy. The relative share of cashless payment in the total turnover in the country, the structure of these payments, as well as the share of the used by the banks modern technologies, determines the level of both the economical development and banking capital. From economic point of view, the transactions can be considered beneficial in some major directions. First, exchange currency expenses can be minimized (storing, telling, transfer of coins and banknotes, losses due to theft, natural disasters, wearing out, etc). This also leads to circumstantial profitability of all economic activities. Secondly, the cash equivalent flow of the sent goods and the completed services from the buyers to the deliverymen is accelerated, which in turn cuts down the turnover time of the advanced cash funds. This pattern influences favourably the profit processes and facilitate the economic stability. Thirdly, the financial risk due to payment failure can be limited to a certain extent, which helps create even greater confidence in the payments and stability in the economic relations. In conclusion, we can say that cashless transfers directly and circumstantially facilitate making profit by economic subjects, thus boosting the economy (Nikolova, 2009).

The main objective of this article is an attempt at analyzing the development of electronic financial services in Bulgaria, focusing on the role and application of the electronic bank products and technologies.

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The significance of these issues is determined by the rapid invasion of modern informational and communication technologies in the economy and business

The electronic banking enables the potential customers to manage their finances online and react adequately in accordance with the ever-changing financial markets. It can prevent them from losing money or missing a chance to realize bigger profit from their investments in deposits, bonds or currency.

II. ELECTRONIC BANKING

Since the moment they were introduced, the online bank services have been challenged to act as mediator between two traditionally different options: from one hand--the reliable and conservative traditional banking system with its respective bank products and services and on the other hand-the aggressive and fast-developing world of Internet and the mobile applications. At the end of 2012, Celent, a consultant company, analyzing and dealing with the application of information technologies in the global industry of financial services, published a research concerning the changes the sector is facing.. The main conclusion acknowledges the new technological challenges. It's the first time most financial institutions have accepted the strategic essence of the online channel. Although it took 20 years, it reflects a drastic drift in the attitude. Opening an account on Internet and loan application systems is becoming more and more popular. Generally, e-banking typically features making use of up-to-date information and communication technologies which offer user-friendly products and services, offered by the banks. This is the so called remote banking, because there is no direct contact between the client and the bank (Gramatikov, 2002, p. 24).

E-banking offers bank products and services: via: a) telephone banking b) GSM/WAP banking through mobile connection with the bank. The client can check their bank accounts and operations as well as ask for and receive financial information etc. c) Internet banking where internet is used as data transfer environment. The client can avail of all products and services offered by the bank they work with, regardless of the place and working hours. They can use dial-up connection to the bank branch and specific software for connection to the electronic banking system (the so called PC banking) or Internet available software (Internet banking). In both cases the bank provides keys (certificates) and a security code for the communication and certification of the client's identity d) banking via other electronic channels data transfer (Bozhinov, 2000, p. 19).

The e-banking is the new future. It provides huge advantages for the banks and their clients, who can rely on fast and safe service, low transaction expenses and effective and competitive operations. The routine processes of making up payment documents and accounting have been automatised, the payment processes have been accelerated, the bank activity has been optimized, and error risk has been minimized. High degree of security and additional control is further extended (Ivanov, 2003, p. 9). Another priority of the modern bank technologies is their ability to up-to-date the information processing and analysis

The payment instrument for remote access allows the authorized holder to access their financial funds via electronic or other technical means-that is bank card and electronic payment order. By using chip technology, the electronic money instrument preserves electronic money on a bank card or other electronic means and is accepted as a means of payment by persons other than the issuer. The electronic money is defined as electronic money value, which constitutes cash obligation of the issuer and is preserved on an electronic money payment instrument. E-money can be issued only after receiving advanced amount equivalent to their cash value.

2.1. Electronic payment "Mobile payment „EPI"

E-payment is technological instrument, which enables its owner to obtain access to financial means in bank accounts and to conduct due payment with customers and sellers using different banks and mobile operators via mobile phone and mobile software application.. The EPI is neither the mobile phone, nor the SIM card which carries the information about the EPI holder. EPI technologically allows the client to manage via their mobile phone their accounts and financial funds.

2.2. Mobile portfolio

The mobile portfolio is a telecommunication service offered by the mobile operators. The service includes a software application installed in the SIM card of the mobile phone with a registered electronic signature. The service does not require installation and additional setting, just a replacement of the existing SIM card or a purchase of a new one. The service will be active in new SIM cards and will be provided by mobile operators to the mass consumer after its transition to market phase. Each telephone operation is verified by a PIN code and is electronically signed, installed in the very SIM card. Therefore, the replacement of the already existing cards, which lack the necessary software won't take long. The software installed in the SIM card allows the visualization of a menu including account management, money orders, generating enquiries, payments etc. The software is installed during manufacturing, and requires no further application installation.

2.3. Electronic money order.

Taking advantage of this function allows Mobile banking users to order credit transfers through a mobile phone to clients of:

- banks-members of SEP-Alliance Bank Bulgaria, Post Bank, Municipality Bank, UBB, C Bank etc.
- banks-non SEP members-through BISERA and RINGS

Currency transfers are not available. The maximum amount of credit order is 1000000.

Beneficiaries are authorized through:

- entering IBAN-the account number which has to be certified is entered in the application
- through a mobile phone number- in case the beneficiary avails of services provided by SEP Bulgaria, they can order a credit transfer by entering a phone number, which is bound to a mobile portfolio with no account number required. In this case, the client points out the main account which has to be certified.

The difference between the transfers from mobile phone to a SEP member bank and a non member, is the payment system which processes the payment. if the transfer is directed to a member bank-the transfer will be processed in accordance with the system day and schedule of the EPS and RINGS. If the transfer is directed to a non member bank, the transfer will be processed in accordance with the system day and schedule of BISERA and RINGS.

2.4. The future of mobile banking

Until 2010, the branch network was considered top priority for customer service. The financial institutions invested in its expansion and the changes can be described as small steps towards a groundbreaking transformation. This transformation took place in 2012 and since then the attention has been focused on "the branch of the future". A survey targeting the changes which the sector is facing was published at the end of 2012 by Celent (a company for analysis and consulting exploring the application of the IT in the global industry). The main conclusion is that the bank system has opened up for new technological challenges. It's the first time most financial institutions have accepted the strategic significance of the online channel, revealing a drastic change of mind. Internet bank accounts and loan applications online gain popularity and having integrated the other channels-online, contact centres and actual bank branches, clients can start the process online and conclude with a brief conversation or Internet call. Recently Celent has recorded systematic increase in technological investments aiming at customer service and sales- specifically CRM platform instruments, customer analysis instrument and management systems. Currently, every third financial institution has been planning office renovation in order to provide better service and maintenance. The survey also shows that only 29 % from all US banks are planning to reduce expenses by implementing self-service technology (http://cio.bg/).

A combined research conducted by McKinsey and the European Financial Management and Marketing Association, EFMA definitely proves that the mobile devices are going to transform retail banking in the next 3-

5 years. Executive directors of 150 European banks have also confirmed the inevitable future prospects of the mobile services. Most of them look forward to the significant benefits that the mobile technologies will bring to their clients and believe it is a steady tendency.

III. THE ADVANTAGES OF MOBILITY

It took online banking almost a decade to gain ground and strengthen its positions, while the mobile finance management expanded and was spread worldwide for just 1/3 of this time. The business financial institutions are investing on a large scale in complete mobile and online platforms. Currently, 38% of the banks provide banking via tablet, while 46% are planning to introduce it. 81% of the US banks consider the establishment of a competitive mobile channel top priority. The mobile device boasts some specific features which make it unique. It is portable and available 24/7, possesses unique for each client identification number and is user-friendly. It allows geographical positioning, which makes the services and products territory adaptable. This is the most widely used electronic device. Practically clients can "meet" their bank every day regardless of their location. All these possibilities plus a flexible cloud and app-technology enables faster development and overall integration with third country's products. According to the experts in McKinsey and EFMA, the above mentioned circumstances create at least three specific opportunities for the banks. They are (http://cio.bg/, op. cit.):

A. Ultra convenient and innovative banking

The banks can use mobile services in order to create differentiated and discerning offers in the now existing markets. This means drastic alleviation of all everyday activities-checking account balance and transactions, transfer of funds and purchase of new bank products. The banks acknowledge the serious degree of change relating to the frequency and number of interrelations with their clients-it used to be once monthly, now it happens daily due to the mobile device

Б. E-commerce

Internet has provoked a revolution in the consumer commerce. Smart phones can act as a catalyst for a forthcoming revolution in consumer commerce-they bring Internet to the shop. The stakes are huge- a lot of players all elbowing their way up to the top-Google, PayPal, Facebook, Amazon.

B. Conquering new territories- – "un" и „under-banked" markets.

The banks can use the cheap mobile channel and innovative partnerships in order to find access to "un" and "under-banked" clients in developing and developed markets. For instance, "competing" and "fighting" banks can easily establish partnership in the low-price range with an already well - established and respected telecommunication company. Mobile banking as part of a remote-based business pattern can influence highly competitive strategy for both developing and developed markets.

It is clearly visible that online and mobile availability tend to create a bank system of entirely new status: total fall out of limitations and full availability of service and product. Naturally this will also affect the banking.

3.1. Video consulting

The American banks are the first to provide video consulting via Skype. As commented in a Cisco report, video consulting can serve a dual purpose-size banks can pretend to be smaller by being closer to the clients, while small banks can look "bigger" by expanding their services. By using the video channel, banks can refer to their branches as a resource network ignoring the physical location. The institution can optimize the service of various segments of their customers, manage the demand better, use their qualified employees more effectively and generate higher income.

The Turkish bank Ziraat was one of the first to install in 2008 the so called. VideoTeller Machine – a cabin with 24/7 access regime, with a bank card as a key. Using the VideoTeller Machine clients can consult highly qualified specialists on private investments. The quality of the video connection is so good, that the client can feel the personal attitude of the expert. This service is actively used (http://cio.bg/).

Some analysts express the opinion that video consulting is expanding parallel with the internet banking. The successful introduction of the video service depends to a great extend on its target group. For example, if most clients of a given bank are in retirement age and do not make use of internet banking, then the chances of the bank to successfully offer video services is less optimistic and probable.

3.2. Biometric technologies

The more active online banking becomes, the more security problems arise. Biometric technologies are a key instrument in creating reliable defense. Fujitsu Technologies Solutions has found its first corporative client in Europe for its biometric system PalmSecure, which it uses as a factor for identification of palm veins, scanned by an infrared pick up from a 5 cm distance. Since recently the system has been used only by Japanese banks, but now the Italian UniCredit has initiated its implementation. Bank clients, registered in the system will be able to conduct payment by holding their palm over a scan, fitted in a cash terminal, without having to show a bank card or entering PIN. They don't have to touch the pick-up. The system recognizes not only the outlines of the veins, but also the blood circulation. PalmSecure is more reliable than the fingerprint scan--the wrong identifications are 1 of 100 000, while in the vein scan they are 1 of 1,25 million.

IV. CONCLUSION

Bulgarian banks adapt to the fast development of the electronic business. The banks operating on Bulgarian territory follow the world tendencies and urgently introduce e-banking. They design products intended for this market and expand the use of computer technologies. The banks provide various forms of e-banking: PC. Internet, telephone, GSM banking. They comprise both information services (enquiries about accounts, currency rates etc) and active operations (payment orders, urgent encashment etc.).The adoption of the E-document and e-signature Act facilitates the credibility of the e-services and expansion of their customers as it "creates security in the electronic flow of data in the open nets in general (Yordanova, 2000, p. 27.).

30 banks in the country-24 licensed in the Republic of Bulgaria, and 6 foreign banks branches offer electronic banking to their clients. Internet banking provides the client with technical resources to order payments electronically in Bulgarian and foreign currency, and also to receive information and bank statements about the condition of their bank accounts and financial funds transfer through Internet.

REFERENCES

Bozhinov, B. (2000). *Elektronnite pari*, Ed. „Abagar", Veliko Tarnovo (Божинов, Б. (2000). Електронните пари, изд. „Абагар", Велико Търново.)

Gramatikov, M., (2002). *Virtualnite bankovi klonove nalagat promeni v normativnata uredba*, Bankovi informatsionni tehnologii, Number 2 (Граматиков, М., (2002). Виртуалните банкови клонове налагат промени в нормативната уредба, *Банкови информационни технологии,* бр. 2.)

Ivanov, K., (2003). *Elektronno bankirane (sashtnost, predimstva, osobenosti)*, Balgarski sche¬tovoditel, Number 13. (Иванов, К., (2003). Електронно банкиране (същност, предимства, особености), *Български счетоводител,* бр. 13.)

Yordanova, M., (2000). *Elektronna targovia i elektronen podpis*, Banki. Investitsii. Pazari, Number 7 (Йорданова, М., (2000). Електронна търговия и електронен подпис, Банки. Инвестиции. Пазари, кн. 7)

Nikolova, N. (2009). *Osnovi na finansite*, Sofia (Николова, Н. (2009). Основи на финансите, София)

Trifonova, S. (2005). *Strategii za razvitie na elektronnite finansovi uslugi v Bulgaria* (Трифонова, С. (2005). Стратегии за развитие на електронните финансови услуги в България) http://research.unwe.bg/br5/s.trifonova.pdf

Bank for International Settlement (January 2001). *Committee on Payment and Settlement Systems, Core Principles for Systemically Important Payment Systems*.

http://cio.bg/