

# The Role and Efficiency of Internet Banking in Romania

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**Abstract.** The electronic revolution in commerce is strongly affecting the performance of the economies. Banking over the internet has attracted increasing attention over the past several years from bankers and other financial services industry participants and this is due to the rapid and significant growth in electronic commerce. The changes in banking system become ever more tangible in the client-bank interface which is situated outside the traditional headquarters represented mainly by automatic teller machines - ATMs.

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**Jel Code:** L86, G2, G20

## 1. Introduction

In Romania, financial banking technologies have witnessed a genuine revolution in the field of information technology, in terms of how the range of products and services is managed. The most recently studies emphasis the fact that more than 54 millions of Europeans have used in 2007 the on-line bank services. In the same time, the supplying of the services through the Internet brings huge benefits for the banks also. The reducing of the costs, the keeping of the clients or the attraction of the new clients, the growing of the operation speed of the transactions are only few of them.

Due to the Regulation of the Romanian National Bank concerning the transactions done through the instruments of electronically payment and the relations between the participants to these transactions, the payment instrument with distance access is the one who allowed the owner to have access to the funds existing in his bank account and through it heaving the opportunity to execute payments to a beneficiary or other type of operations of funds transfer.

In the category of payment instruments with distance access are included the cards, the applications like Internet-banking and home-banking. Concerning the applications like Internet-banking, the functioning principle is based on the Internet technology (World, Wide, Web) and also on the informatical systems of the bank. The instruments like home-banking are based on a software application of the bank, installed at the owner place, on an individual work station or in the network. Due also with the Regulation of the Romanian National Bank, the operations that the owner of the payment instrument with distance access can execute, it refers to: operations of funds transfer (who gives the possibility of the electronically transmission of the instructions of the personal current account debit and of the transcription of the

wished message on the payment bill who will be generated automatically by the system), exchange operations, the obtain of the information concerning the situation of the funds and the executed operations.

On the other hand, the Minister of Communications and Information Technology has elaborated a project of law concerning the notice procedure of the payment instruments with distance access, like the applications Internet-banking or home-banking.

The order MCTI will be applied to the banks, to the Romanian juridical persons and the Romanian banks branches, to the foreign juridical persons, who uses or intends to use the distance payment instruments. The banks have the obligation to elaborate and transmit MCTI a noticed documentation, and the technical noticed will be done by MCTI for free, on a period of 12 months, with renew possibility.

One of the most important obstacles who stays in the way of development of the distance payment instruments, noticed by almost all the banks which have answered to our questions, has referred to the missing of a clearing electronically system.

In this moment, in Romania, even if the banks have implemented different systems of electronically banks services, the clearing part still suffer, as long as it doesn't have an electronically system base.

The first steps in this direction have been already done, at a juridical level and at a Romanian National Bank level, who have been externalized the system of inter-banking discount of the payments without cash and have been started the introducing procedures of the electronically discount system of the payments. This process is very complex, it needs time for being completely functional, but in the moment when this will be available, will be really useful to the banks and to the clients, eliminating a whole of inconvenient and reducing, practically, the time when a payment bill can be processed.

The electronically payment system has a special importance because of the simplification that will bring in the modality of processing of the payment bills.

The present legislation has an important role in this area, it defines what operations can be done electronically and what operations should be signed and stamped by the client. The new reglementation should put more accent on the information transferred electronically.

## **2. The attitude, the behavior and the tendencies of the Romanian consumer of the bank's services**

If we speak about the consumer's level of knowledge's of the banks market, it is said that the Romanian State Bank remains continuously the most popular bank in Romania.

Concerning the trust in the Romanian bank system, if we take in consideration the dates from May – very new dates – we can say that there is trust in this. The Romanian banks tend to have a bigger grade of trust through the consumers than the foreign banks. This fact can be explained both to the fact that the foreign banks have a small presence in the Romanian bank's area and to the fact that the people source of information about the activities, the fame and the cover of the international banks is kind of reduced.

Many banks considered necessary the introducing of some new electronically payment services of the bills and the visualizations of the bank account: electronic banking, internet banking, mobile banking. Most of these services were introduced in the years 2000 and 2001. 2002

represented the year of the battering and the dealing of some agreements between banks and the mobile phone operators.

The present tendencies of the electronically revolution from the European bank system are managed detached by the Internet and mobile banking, offering to the banks new opportunities and new challenges.

The facts who encourages the banks in the development of the online bank services, as a piece of their strategy of the multichannel client access, are, mainly, the following:

- The Internet clients are, in generally, more educated than the non-internet users.
- Both of the internet banking clients and mobile banking clients tend to be the promoters of the new technology acceptance, heaving, in generally, a mentality like: few time, maximum efficiency with the efficient management of the cash.
- The processing costs more reduced for the banks.
- The possibility of the implementation of the Customer Relationship Management efficient system.
- Quickly and cheep communication through SMS, e-mail with the existing clients.
- The possibility of offering a package of complementary services, through the development of some financial portals in common, and the development of the e-commerce initiatives.

The development of some directly services involves, in generally, significant investments in TI systems, developments of products and marketing, rising the problem of a coherent strategy who can allowed the investment recuperation.

The Romanians have used ATM in a very high proportion for the cash achieving last year. The tendency of the Romanian banks is to migrate to the retail, the sector which can bring to them a considerable profit.

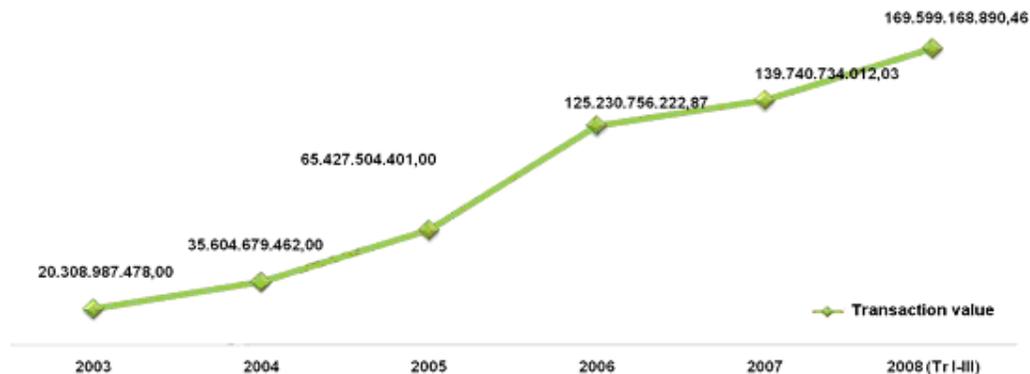


Figure 1. Transaction value

Source : Communications and Information Technologies Ministry, January 2009

Retail banking (the bank systems for the physical persons) has suffered through the years, in the same time with the new technologies and communicational systems appeared on the market, important modifies concerning the business models, the offered services, the public relations (PR). Retail banking is not what was in the past. The new monetary and fiscally politics, the markets and financial systems globalization, the high need of introducing of new products and personalized services on the clients have managed to the appearance of a new

market, in which the old players have needed to adapt very quickly, while the new players entered in force, introducing quickly services, cheaper and more specialized.

The World Bank industry is restructuring and the old relation between the bank and the client is changing also. The alters from the technological sector, the reglementation and the general economical conditions transform the industry of the financial services. Internet banking, telephone banking and mobile banking are developing quickly in the whole world, establishing the fact that the banks are more intermediary which facilitates the directly and indirectly financial relations between the personal clients, than producers and suppliers of the financial products.

The need of understanding the clients and collaborating with them in an intelligent way became an aim for many financial organizations. The represent ants of many retail banks from the world affirm that 40% of the development realized in the last years is most of it the result of the implementation CRM (Customer Relationship Management). The correct administration of this solution is seen vital for the creation of a financial institution which offers competitive services.

The principal advantages of the development of internet banking are the following:

- the increase of competition in the banking system
- the reduction of the operational costs of the banks due to the fact that the number of traditional operations made by the clients at the banks offices will decrease;
- the achievement of the bank operations in short real time;
- the access without restriction of time or distance;
- faster transaction by abandoning intermediary transactions.

The development of the internet banking is an important element in the evolution of the Romanian financial system. For the next period, this activity will not dominate the Romanian banking market, but will be a part of a diverse offer, belonging to a real and competitive environment.

In Romania, over 23 banks implemented and offer now e-banking services. The continuous development of the supporting technology, information security and e-banking strategy reflects on the increasing number of the e-banking customers. According to Communications and Information Technologies Ministry, the number of e-banking users and the transactions performed in this system, as well as the value of these transactions, registered a spectacular rising, displayed in the table below:

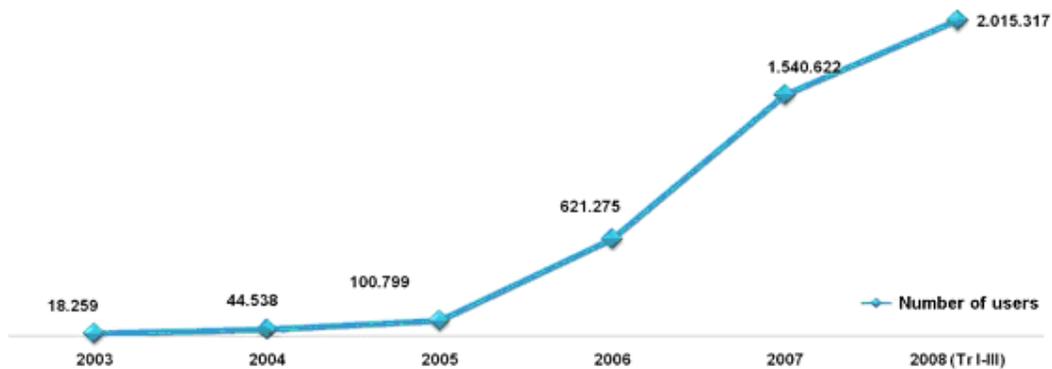
<b>Index \ Year</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>E-banking customers</b>	18.259	44.538	100.799	187.471
<b>Transactions number</b>	1.968.170	2.244.067	3.546.549	4.851.427
<b>Transactions value (euro)</b>	7.911.987.706	11.566.348.720	20.510.170.662	44.830.322.635

Source: Communications and Information Technologies Ministry

While the risks and controls are similar for the various e-banking access channels, this essay focuses specifically on Internet-based services due to the Internet's widely accessible public network. Accordingly, this project begins with a discussion of the two primary types of

Internet websites: informational and transactional. Informational websites provide customers access to general information about the financial institution and its products or services. Risk issues examiners should consider when reviewing informational websites include: Potential access to confidential financial institution or customer information if the website is not properly isolated from the financial institution's internal network; Potential liability for spreading viruses and other malicious code to computers communicating with the institution's website; and Negative public perception if the institution's on-line services are disrupted or if its website is defaced or otherwise presents inappropriate or offensive material.[2]

Figure 2. Numbers of users



Source : Communications and Information Technologies Ministry, January 2009

Transactional websites provide customers with the ability to conduct transactions through the financial institution's website by initiating banking transactions or buying products and services. Banking transactions can range from something as basic as a retail account balance inquiry to a large business-to-business funds transfer. E-banking services, like those delivered through other delivery channels, are typically classified based on the type of customer they support. The following table lists some of the common retail and wholesale e-banking services offered by financial institutions.

Since transactional websites typically enable the electronic exchange of confidential customer information and the transfer of funds, services provided through these websites expose a financial institution to higher risk than basic informational websites. Wholesale e-banking systems typically expose financial institutions to the highest risk per transaction, since commercial transactions usually involve larger dollar amounts. In addition to the risk issues associated with informational websites, examiners reviewing transactional e-banking services should consider the following issues:

- Security controls for safeguarding customer information;
- Liability for unauthorized transactions;
- Possible violations of laws or regulations pertaining to consumer privacy, anti-money laundering, anti-terrorism, or the content, timing, or delivery of required consumer disclosures

### **3. Risk management**

Transaction risk arises from fraud, processing errors, system disruptions, or other unanticipated events resulting in the institution's inability to deliver products or services. This risk exists in each product and service offered. The level of transaction risk is affected by the structure of the institution's processing environment, including the types of services offered and the complexity of the processes and supporting technology.

In most instances, e-banking activities will increase the complexity of the institution's activities and the quantity of its transaction/operations risk, especially if the institution is offering innovative services that have not been standardized. Since customers expect e-banking services to be available 24 hours a day, 7 days a week, financial institutions should ensure their e-banking infrastructures contain sufficient capacity and redundancy to ensure reliable service availability. Even institutions that do not consider e-banking a critical financial service due to the availability of alternate processing channels, should carefully consider customer expectations and the potential impact of service disruptions on customer satisfaction and loyalty.[1]

The key to controlling transaction risk lies in adapting effective policies, procedures, and controls to meet the new risk exposures introduced by e-banking. Basic internal controls including segregation of duties, dual controls, and reconciliations remain important. Information security controls, in particular, become more significant requiring additional processes, tools, expertise, and testing. Institutions should determine the appropriate level of security controls based on their assessment of the sensitivity of the information to the customer and to the institution and on the institution's established risk tolerance level.

Generally, a financial institution's credit risk is not increased by the mere fact that a loan is originated through an e-banking channel. However, management should consider additional precautions when originating and approving loans electronically, including assuring management information systems effectively track the performance of portfolios originated through e-banking channels.

Funding and investment-related risks could increase with an institution's e-banking initiatives depending on the volatility and pricing of the acquired deposits. The Internet provides institutions with the ability to market their products and services globally. Internet-based advertising programs can effectively match yield-focused investors with potentially high-yielding deposits. But Internet-originated deposits have the potential to attract customers who focus exclusively on rates and may provide a funding source with risk characteristics similar to brokered deposits. An institution can control this potential volatility and expanded geographic reach through its deposit contract and account opening practices, which might involve face-to-face meetings or the exchange of paper correspondence.

Compliance and legal issues arise out of the rapid growth in usage of e-banking and the differences between electronic and paper-based processes. E-banking is a new delivery channel where the laws and rules governing the electronic delivery of certain financial institution products or services may be ambiguous or still evolving. Laws governing consumer transactions require specific types of disclosures, notices, or record keeping requirements. These requirements also apply to e-banking, and banking agencies continue to update consumer laws and regulations to reflect the impact of e-banking and on-line customer relationships.

Institutions that offer e-banking services, both informational and transactional, assume a higher level of compliance risk because of the changing nature of the technology, the speed at which errors can be replicated, and the frequency of regulatory changes to address e-banking issues. The potential for violations is further heightened by the need to ensure consistency between paper and electronic advertisements, disclosures, and notices.

E-banking has unique characteristics that may increase an institution's overall risk profile and the level of risks associated with traditional financial services, particularly strategic, operational, legal, and reputation risks. These unique e-banking characteristics include: Speed of technological change, Increased visibility of publicly accessible networks, Less face-to-face interaction with financial institution customers. Management should review each of the processes discussed in this section to adapt and expand the institution's risk management practices as necessary to address the risks posed by e-banking activities.

Financial institution management should choose the level of e-banking services provided to various customer segments based on customer needs and the institution's risk assessment considerations. Institutions should reach this decision through a board-approved, e-banking strategy that considers factors such as customer demand, competition, expertise, implementation expense, maintenance costs, and capital support. Some institutions may choose not to provide e-banking services or to limit e-banking services to an informational website.

Financial institutions should periodically re-evaluate this decision to ensure it remains appropriate for the institution's overall business strategy. Institutions may define success in many ways including growth in market share, expanding customer relationships, expense reduction, or new revenue generation. If the financial institution determines that a transactional website is appropriate, the next decision is the range of products and services to make available electronically to its customers. To deliver those products and services, the financial institution may have more than one website or multiple pages within a website for various business lines.

Financial institutions should base any decision to implement e-banking products and services on a thorough analysis of the costs and benefits associated with such action. Some of the reasons institutions offer e-banking services include: Lower operating costs, Increased customer demand for services, and New revenue opportunities.

The individuals conducting the cost-benefit analysis should clearly understand the risks associated with e-banking so that cost considerations fully incorporate appropriate risk mitigation controls. Without such expertise, the cost-benefit analysis will most likely underestimate the time and resources needed to properly oversee e-banking activities, particularly the level of technical expertise needed to provide competent oversight of in-house or outsourced activities.

Security threats can affect a financial institution through numerous vulnerabilities. No single control or security device can adequately protect a system connected to a public network. Effective information security comes only from establishing layers of various control, monitoring, and testing methods. While the details of any control and the effectiveness of risk mitigation depend on many factors, in general, each financial institution with external connectivity should ensure the following controls exist internally or at their TSP.

#### **4. Conclusions**

A financial institution's board and management should understand the risks associated with e-banking services and evaluate the resulting risk management costs against the potential return

on investment prior to offering e-banking services. Poor e-banking planning and investment decisions can increase a financial institution's strategic risk. Early adopters of new e-banking services can establish themselves as innovators who anticipate the needs of their customers, but may do so by incurring higher costs and increased complexity in their operations. Conversely, late adopters may be able to avoid the higher expense and added complexity, but do so at the risk of not meeting customer demand for additional products and services. In managing the strategic risk associated with e-banking services, financial institutions should develop clearly defined e-banking objectives by which the institution can evaluate the success of its e-banking strategy.

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