

# Internet Banking in Romania at a Glance

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## Abstract

*The development of the information and communication technologies and the changes brought to the business models by introducing the use of internet services in recent decades could not be ignored by the banking industry. The emergence and the development of the internet banking have raised many questions to both academia and industry representatives, both in terms of the benefits of the new organizational models based on providing financial services online and the degree of penetration of these services at the national economy level. This paper aims to make an analysis of the extent to which the internet banking services are used in Romania. The analysis took into account various criteria for the classification of internet banking users (age, residence, occupational status). The study showed that the use of the internet banking services in Romania is still below the European average but has an upward trend.*

**Key words:** internet banking, Romania, transactions, banks

**J.E.L. classification:** G21

## 1. Introduction

The banking industry, as well as all financial services, was found since the 90 in front of one of the biggest challenges: the introduction of information and communication technologies in the service providing process especially the internet banking services. The classical model of business used by banks regarding the clients approach, based on face to face interaction, has become a constraint for the development strategies and the possibilities to increase their market share in the context of the rapid growth of the internet usage in all sectors of the national economy and especially on the international markets.

The increasing competition in the banking services market has forced the market' players to find solutions to adapt to the new consumer behaviors that consider eliminating direct interaction with service provider or goods supplier in favor of using the internet for purchases. Another reason banks have developed internet banking services is represented by the reduction of costs and the profits enhance, while enriching customer convenience through the ease and rapidity with which transactions is executed (Stoica Mehdian and Sargu, 2013).

Over the past 20 years the literature has crystallized several research directions regarding the internet banking services: comparison, in terms of profitability, of the business models of banks from the classical "click and mortar" model to the mixed models to those based solely on online services (Sullivan (2000), DeYoung (2005) Arnaboldi and Claeys (2008)), analysis of the degree of penetration of the internet banking services at national economy level(Black et al. (2001) Gerrard and Barton Cunningham (2003)), the integration of internet banking services in the development strategies of the banks.

Hanafizadeh et al. (2014) made a taxonomy of the scientific articles regarding the internet banking taking onto account three main topics: descriptive studies(presenting the concept, identifying characteristics and attitudes of internet banking consumers, barriers to development of

such services) studies based on primary and secondary data; relational studies(trying to identify and explain factors influencing the implementation of internet banking services, to explain the penetration of online banking) using models and theories ; comparative studies( analyzing the internet banking services through comparisons based on several variables (population, distribution channels, methods)).

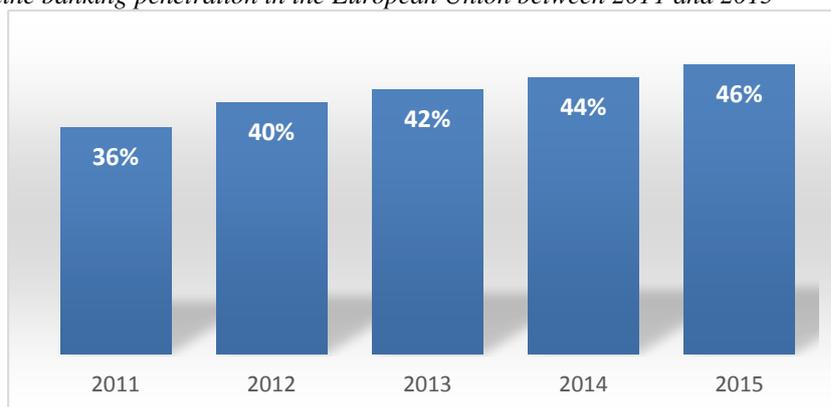
This paper addresses one of the issues regarding the internet banking services - the use and the penetration of them in Romania compared to the European Union. The paper is organized as follows: the analysis of the use of internet banking services in the European Union, the analysis of the use of internet banking services in Romania by types of users based on several criteria (age, residence, occupational status) as well as the level and trends of the transactions made through internet banking (number and value) in Romania.

## 2. Internet banking in EU

A short overview of the internet banking services usage level in the European Union shows that the penetration of these services had a rapid grow jumping from 16% in 2004(Drigha, 2014, p 89) to 46% in 2015.

The internet banking services have seen an increase in use among the EU population in the last 5 years. In 2011 36% of all population used Internet banking services, while in 2015 the share of users in total population grew to 46%. The numbers are even higher for those who used the Internet banking in the last three months, increasing from 52% in 2011 to 57% in 2015. (figure 1)

Figure 1. Online banking penetration in the European Union between 2011 and 2015

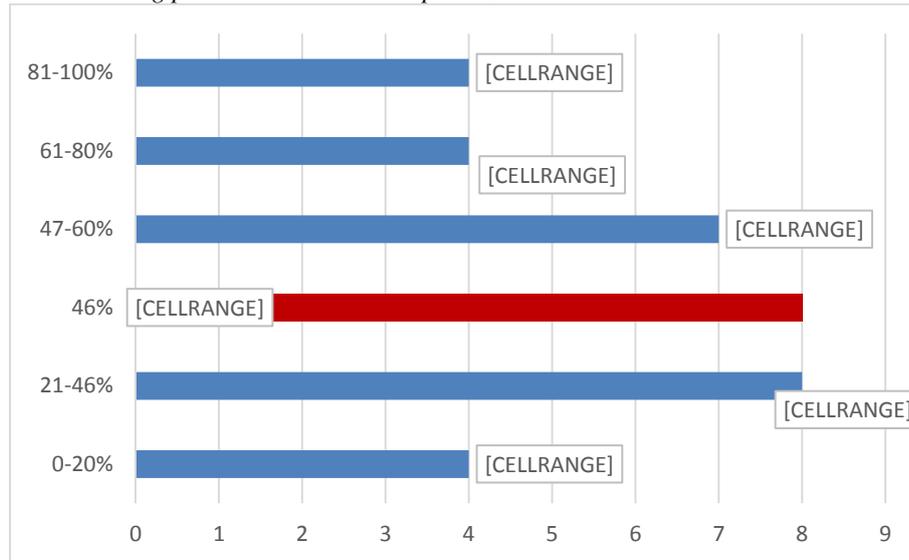


Source: [www.statista.com](http://www.statista.com)

According to the data presented, almost half of the EU population used, at the end of 2015, Internet banking services. However, the same study shows that the country with the higher penetration of Internet banking is Norway, which is not a member of EU and has a 90% level of online banking users ([www.statista.com](http://www.statista.com)).

Country-level data show that there is a greater reliance on the use of Internet banking in the countries of Northern and Western Europe, while the South-East area is below the EU average (figure 2).

Figure 2. Online banking penetration in the European Union countries in 2015



Source: [www.statista.com](http://www.statista.com)

The same conclusions were reached in a 2006 study carried out by Deutsche Bank that revealed that online banking adoption is higher in northern countries and it also increases alongside GDP, latitude and GDP statistically explaining around 80% of the variation in Europe, according to the authors of the above mentioned study. (Deutsche Bank Research, 2006)

The question that arises from this upper trend of online banking is whether it will replace traditional banking and lead to smaller, less staffed banks. The evolution of the number of local units and employees of credit institutions in the last five years, seem to confirm this theory.

Seven years after the beginning of the financial crisis, the banking systems of EU countries continue to transform, trying to cope with a new way of running their daily activities. The development of online services makes fewer and fewer customers require direct interaction with the staff of banks. If we add to those stated above the need for credit institutions to reduce their operating costs, we conclude that the banking systems in the EU are in a process of restructuring designed to transform the credit institutions into more flexible entities, able to adapt to a financial markets in which information technology plays a decisive role. It is difficult to argue at this point that the banking business will become fully automatic in the near future, suppressing the direct interaction between customers and bank employees, but it is obvious that online banking operations are on an ascending trend.

### 3. Internet banking in Romania

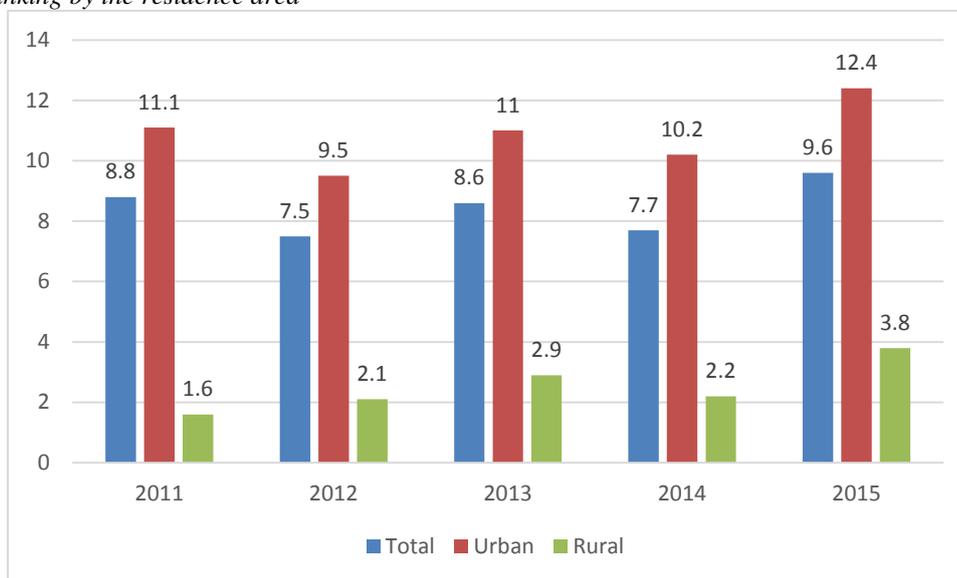
The recent literature shows a raising preoccupation for the internet banking services in Romania. Starting with 2008-2009 studies conducted analyzed different angles regarding internet banking in Romania: from the attitude, the behavior and the tendencies of the Romanian consumer of such services and the penetration of these services in the Romanian market (Buhociu et al, 2009) to the technical aspects with the analysis of internet banking services platforms from the Cloud computing services perspective (Frățilă et al., 2013) and if and how the internet banking services contribute to the enhancement of the overall efficiency of Romanian banks(Stoica et al. 2013).

#### 3.1 The internet banking services by types of users

In the past five years, the number of households with Internet access in Romania increased from 43.3% to 61%. The growth is greater in urban areas, where statistics show that 71.9% of households had Internet access in 2015 compared to 59.3% in 2011. In rural areas, the share of households with Internet access in total households doubled during the analyzed period, from 21.8% to 46.6%.

According to the National Institute of Statistics research, the share of persons aged 16-74 years who accessed the Internet in the last 3 months prior to the survey in order to use Internet banking services in the total number of persons who accessed the Internet increased from 8.8% to 9.6%. In the urban area 12.4% of users in the above mention group used the Internet for on-line banking services, while in the rural area 3.8% accessed the Internet banking services in 2015 (figure 3).

Figure 3. The share of persons aged 16-74 years who have accessed the Internet in the last 3 months for Internet banking by the residence area



Source: processed based on data released by NIS

Compared to other Internet access purposes, Internet banking has one of the lowest percentage rate. In 2015, 78.3% of inquired users utilized the Internet for participating in social networks, 76.3% for sending or receiving e-mails, 67.2% for reading or downloading online newspapers, 47.6% for seeking health-related information, 42.2% for telephoning over the Internet.

The distribution of Internet banking users by age group shows that the largest share in the segment is comprised between 25 and 34 years. In 2015 from the total number of respondents in this category, 14.1% accessed the Internet banking services, the percentage increasing over the previous year by 2.2% and by 1.3% compared to the beginning of the period. The highest percentage of users in this group was reached in 2013 when 14.7% of respondents used Internet banking services. In the category ranged between 35 and 44 years, 11.1% of respondents accessed the Internet banking services in 2015, compared to 8.2% in 2014. An increase in the number of users was recorded in 2015 compared to 2014 in the 45-54 years segment, from 8% to 11% (figure 4).

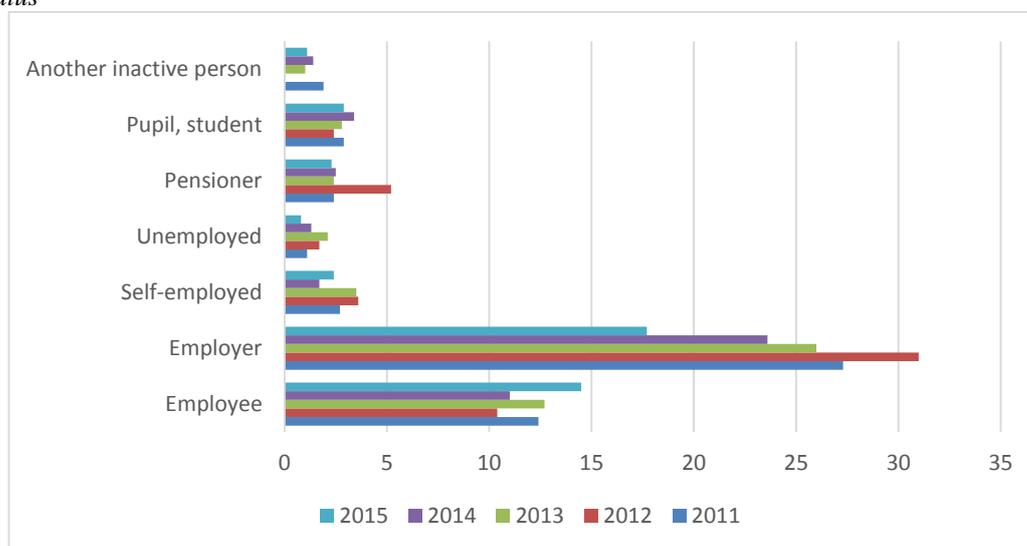
Figure 4. The share of persons who used Internet banking services in the last 3 months by age group



Source: processed based on data released by NIS

In the same period, the distribution of respondents by occupational status shows that most users of Internet banking are among employers. However, in 2015 only 17.7% of surveyed employers were using Internet banking, compared to 27.3% in 2011, 31% in 2012, 26% in 2013 and 23.6% in 2014. The second highest number of users are in the category of employees. The share of users in this category increased to 14.5% at the period end, compared to 12.4% at the beginning of the period (figure 5).

Figure 5. The share of persons who used Internet banking services in the last 3 months by occupational status



Source: processed based on data released by NIS

If we add to the foregoing that in 2015 10.3% of men participating in the NIS study have used in the last 3 months Internet services to 8.8% of women, their number being increased from the previous period, we conclude that user Internet banking is male, aged between 25 and 34 years old, lives in the urban area and is an employer.

### 3.2 The internet banking transactions

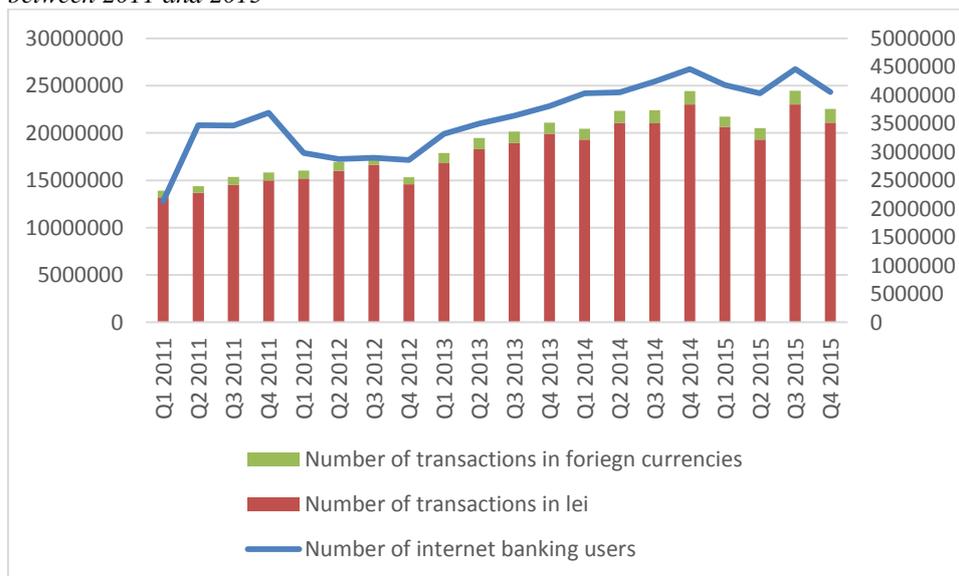
An even more comprehensive outlook on the size of the Internet banking sector in Romania can be obtained by analyzing the data that credit institutions are required to report under the provisions of the Ministry of Communications and Information Technology Order no. 389 from 2007.

In the last quarter of 2015, banks reported to the Ministry of Communications and Information Society a total of 4,051,640 users of Internet banking services, doubled than the number of users in the first quarter of 2011. The maximum number of users, 4,460,437 was reported in the fourth quarter of 2014. The evolution of the number of users fluctuated throughout the period, registering both upward and downward trends, but remaining higher than the number reported for the first quarter of 2011 (figure 6). Comparing the internet banking users' number with the Romania' total population (about 20 million at the national census in 2012) the share is only 20% and 25% if we consider only the adult population over 18(about 16 million at the national census in 2012).

In terms of transactions number the internet banking in Romania developed and grow between 2011 and 2015(as we can see in the figure no. 6) showing that the individuals accessed more often the possibility of doing payments, shopping and transfers online.

The users of Internet banking conducted their transactions mainly in the national currency, the maximum number of their transactions, 23.025 million being reached in the third quarter of 2015 and representing a total value of 459,710,240,844 lei. Throughout 2015, 1.647 billion lei were traded via Internet banking operations in 84.053 million transactions. The number of transactions in foreign currency averaged around 1.08 million transactions each quarter, with a maximum of 1.43 million transactions in Q3 2015. The value of foreign currency transactions in 2015 reached 62.4 billion in euro equivalent.

Figure 6. The quarterly evolution of the number of Internet banking users and number of transactions between 2011 and 2015



Source: processed based on data released by MCIS

Taking into account the number of internet banking transactions we found that the evolution is different depending on the currency used. The number of internet banking transactions in the national currency registered, each quarter in the analyzed period, an ascendant trend growing from about 14 million in the beginning of 2011 to over 20 million at the end of 2015. On the other hand the internet banking transactions in foreign currencies remained for the entire period under 2 million with an important grow after 2013. Even if the number of internet banking transactions are incomparable, the grow ratio is significant in both cases: the transactions in national currency augmented by 60% and those in foreign currency had more than doubled in each quarter of 2015 comparing with 2011.

#### 4. Conclusions

After conducting this analysis we can state that Internet banking in Romania is set on an upward trend and this raises two problems for banks: the need to adapt their operations to the new requirements of clients, providing secure and fast Internet transactions, on one hand, and the need

to reduce their personal and on-field presence and replace it with a more active on-line presence. At macroeconomic level, if we add to those trends stated above, the tendency of reducing the number of ATMs and the increase of POS payments, we may be looking, on long term, at the substitution of the physical currency with the electronic one.

## 5. References

1. Arnaboldi, F., Claeys, P. (2008), Internet Banking in Europe: a comparative analysis, Research Institute of Applied Economics Working Papers, 2008/11, 28 pages.
2. Black, N. J., Lockett, A., Winklhofer, H., & Ennew, C. (2001). The adoption of Internet financial services: a qualitative study. *International Journal of Retail and Distribution Management*, 29(8), 390-398.
3. Buhociu, F. M., Virlanuta, F., Moga, L. M. (2009) The Role and Efficiency of Internet Banking in Romania, *The Annals of "Dunarea de Jos" University of Galati Fascicle I –2009. Economics and Applied Informatics. Years XV*, 21-28.
4. Drigă, I.(2014) Online banking in the Romanian banking system, *Annals of the University of Petroșani, Economics*, 14(2), 2014, 85-92
5. Frățilă, L. A., Zota, R.D., Constantinescu, R. (2013) An Analysis of the Romanian Internet Banking Market from the Perspective of Cloud Computing Services *Procedia Economics and Finance* 6 ( 2013 ) 770 – 775.
6. Deutsche Bank Research(2006) On line banking – What we learn from the differences in Europe, E-banking snapshot-16, [https://www.dbresearch.com/PROD/DBR\\_INTERNET\\_EN-PROD/PROD0000000000196129.PDF](https://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD0000000000196129.PDF)
7. DeYoung R. (2005) “The performance of internet-based business models: evidence from the banking industry”, *Journal of Business*, vol.78(3), pp. 893-947.
8. Gerrard, P., Barton Cunningham, J. (2003). The diffusion of Internet banking among Singapore consumers. *International Journal of Bank Marketing*, 21(1), 16-28.
9. Hanafizadeh, P.; Keating, B.W.; Khedmatgozar, H.R. (2014) A Systematic Review of Internet Banking Adoption, *Telematics and Informatics*, vol. 31(3), pp.492-510
10. Stoica, O., Mehdian, S., Sargu, A. (2015) The impact of internet banking on the performance of Romanian banks: DEA and PCA approach, *Procedia Economics and Finance*, 20, 610 – 622.
11. Sullivan, R.J. (2000) “How has the adoption of internet banking affected performance and risk at banks? A look at internet banking in the tenth Federal Reserve district”, *Federal Reserve Bank of Kansas City Financial Industry Perspectives*, December, pp. 1-16.
12. Web data sources:
13. Romanian National Institute of Statistics [www.insse.ro](http://www.insse.ro)
14. Romanian Ministry of Communications and Information Society [www.mcsi.ro](http://www.mcsi.ro)
15. [www.statista.com](http://www.statista.com) - <https://www.statista.com/statistics/222286/online-banking-penetration-in-leading-european-countries/>