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**LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING  
SERVICES IN THE POLOG REGION**

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**ABSTRACT**

Electronic banking services have occurred relatively in the last decade in the Republic of Macedonia and as a new occurrence, the e-banking success is influenced by the customers' satisfaction and user experience. The purpose of this paper is to explore the satisfaction and the user experience of the customers from the electronic services of banks in the Polog region, where 200 people were surveyed, mostly from the Gostivar and Tetovo region. Demographic factors (sex, type of client, status, age, level of education, level of knowledge and the working experience) are placed in correlation analysis with certain levels of e-banking, such as: trust in e-services, ease of use, the user experience when using technology and the satisfaction from using e-banking services.

The research adds further value opportunities and measures for improving the condition of the customers' satisfaction from the electronic bank services in Polog.

**KEYWORDS:** e-banking, customer experience, customer satisfaction, comparative analysis, Polog region

**JEL CLASSIFICATION:** M30, M31

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## **1. THE PROCESS OF MEASURING CUSTOMER SATISFACTION**

Marketing, according to the American marketing association, is defined as the activity, set of institutions, and processes for creating, communicating, transmitting, and exchanging offerings that hold value for customers, clients, partners, and the society at large<sup>4</sup>. Value, as a central marketing concept, is primarily a combination of quality, service, and price (qsp), known as the customer value triangle. Value perceptions increase with quality and service, but decrease with price. Satisfaction, on the other hand, reflects a person's judgment of a product's perceived performance in relationship to expectations. If the performance falls short of expectations, the customer is disappointed. If it matches expectations, the customer is satisfied. If it exceeds them, the customer is delighted (Kotler et al., 2012, p. 10). Perceived value is the customer's overall assessment of the utility of a product based on perceptions of what is received (the benefits) and what is given (the sacrifices) (Zeithaml, 1988). The first part of the perceived value is the received benefits: economic, social and relationship, while what is given, the sacrifices are: price, time, risk and convenience of the customers (Roig et al., 2006, p.266-283).

With the development of information technology and the Internet, customers are becoming more informed and organizations that are focused on marketing are more tailored towards the end-consumer. The banking sector provides tremendous effort to satisfy the expectations of customers by analyzing how they react to their offered services. The satisfaction of the customers has become the leading indicator for developing and improving the successful functioning of banks. Banks can use different methods to measure the level of customer satisfaction by gaining feedback information which they can use to increase the effectiveness of their work through collecting, processing and analyzing the data. Also, banks use a wide variety of forms of communication such as discussions, canvasses, focus groups and questionnaires to

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<sup>4</sup><https://www.ama.org/AboutAMA/Pages/Definition-of-Marketing.aspx>(accessed on 3rd of January, 2015)

improve the specific needs of the customers, which is an important step in the management of services.

## **2. DEFINING ELECTRONIC SERVICES PROVIDED BY BANKS IN REPUBLIC OF MACEDONIA**

According to Laudon (Laudon et al., 2009, p. 13-18) the eight unique features of electronic commerce are: ubiquity, global reach, universal standards, richness, interactivity, information density, personalization/customization and social technology. The electronic services of banks (e-services) are the sum of different technologies, whose development depends on the use and the innovation of information technologies. E-services decrease the personal relationship between banks and customers because every transaction is completed online without personal contact. Banks, through the use of e-services can gain a number of benefits: improved reputation, better communication with the clients, reduction of promotional costs, and cost for launching new services and etc., which can transform banks into competitive, technologically modern and internet-oriented entities. E-services of banks allow customers fast, consistent, and safe access at any given moment, which means they can save time, energy and money.

### **2.1 Comparative analysis of e-services in Republic of Macedonia and developed countries**

Despite the continued growth of online banking in Europe, in some country-members of the European Union, the level of branch visits still remains high. For example, in France and Italy, compared with other countries, there was a significant increase of branch visits (Meyer, 2006). The statistic center of the European Union, called eurostat, in 2012, made a research about the use of information and communication technologies in the households and about the individuals (Seybert, 2012). The research resulted in the following data regarding online users in EU27:

- Around 60% of the young population in EU27 (age of 16-24 years) used Internet in motion;
- The percentage of persons that used Internet in the EU in 2012 was 73%;

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- In 2012, 54% of the users used Internet for banking operations;
- One out of two internet users aged between 55 and 74 uses online services for banking purposes and travelling.

In the Republic of Macedonia, in 2008 the access to Internet for the entire population was around 26%, 40% in 2009 and 45% in 2010, while details for the following years have not yet been updated by the European statistics center<sup>5</sup>. According to the E-Government survey, carried out by the United Nations, the telecommunications index of infrastructure (TII) is a normalized value by taking certain value in a country, in particular the deduction of the lowest composite values of the poll and dividing it by the series of composite values of all countries.

**Table 2.1 „e-Government“ components of Macedonia according to the UN**

MK	Telecommunications index of infrastructure	Internet users per 100 people (percentage)	Main telephone lines per 100 people	Mobile lines per 100 people	Fixed (wired) Internet per 100 people	Personal computers per 100 people	Wireless broadband internet per 100 people
2010 <sup>6</sup>	0,3804	42,90	22,39	122,56	8,77	36,76	
2014 <sup>7</sup>	0,4521	63,15	19,37	106,17	14,36		22,27

**Source: United Nations E-Government Survey 2010&2014**

Table 2.1 displays the comparisons of TII and its components in the Republic of Macedonia in 2010 and 2014 respectively. In 2010, the TII was 0,3804, while 2014 represents a growth to 0,4521 index points. The percentage of internet users increased from 42,9% (2010) to 63,15% (2014). There was a decreasing trend in the telephone and mobile lines in comparison to the growing trend of the fixed or wired Internet. In 2010, 36,7% of the respondents used personal computers, while in 2014 the wireless broadband Internet reached 22,27%. According to the State Statistical Office of Macedonia (Information Society-Announcement, No.8.1.11.25 of 21.10.2011) during

<sup>5</sup>[http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc\\_pibi\\_pai&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_pibi_pai&lang=en) (accessed on 5<sup>th</sup> of April, 2015)

<sup>6</sup>United Nations E-Government Survey 2010, Department of Economic and Social Affairs, Leveraging e-government at a time of financial and economic crisis, United Nations New York, 2010

<sup>7</sup>United Nations E-Government Survey 2014, Department of Economic and Social Affairs, E-Government for the future we want, United Nations New York, 2014

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the first quarter of 2011, only 4,1% of the Internet users completed Internet orders for purchasing goods or services for personal use and 10,8% of individuals aged between 16 and 74 used internet banking. The research shows that each increase of 10 points of the penetration of broadband Internet increases the economic growth rate in average of 1,38%, in countries with low or average incomes (United Nations E-Government Survey 2014, p. 187).

The significant competitiveness of the banks in the Republic of Macedonia, the increased investments in the information technologies infrastructure in the last several years and the increased number of Internet users in the country facilitated the increase of the collective awareness about reorientation from the traditional services of banks to the offered electronic banking services. The increasing number of ATM machines throughout the country also contributed to this situation, as well as the large number of POS terminals and the introduction of mobile banking and SMS banking. Consequently, the related cost and charges are lower, compared to the offered services by branch banking. This means that demand can be full filled from any place and another important aspect is that the use of e-banking significantly shortens the time needed to carry out activities and processes. Clients have 24 hours' access to e-banking, save time necessary to reach the bank branch, can follow their denar and foreign currency accounts online and can perform financial transactions.

E-services offered by banks in the Republic of Macedonia differ in the type of technology used, meaning banks can offer internet-banking, mobile-banking and SMS-banking. Essentially, banks in Macedonia offer similar electronic banking services:

- Electronic balance checking and statement searching, both for individuals and businesses
- Electronic payment through debit and credit cards
- Electronic payment of liabilities of all kinds of credits and the payment of liabilities
- Transferring money securely from one account to another even if they have accounts at other banks

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E-services offered by banks can be defined as conducting financial transactions between individuals and businesses through the use of electronic devices and secure communication channels. The safety of the financial transactions is under the supervision of the banks information security systems. Each time a client accesses the electronic services of the bank, the identity of the client is confirmed via a username and a password through the use of a digital certificate. E-services offered by banks in the Republic of Macedonia are mostly similar, with few differences in new inventive models in the electronic banking applications. In the last several years, in the Republic of Macedonia there have been large investments in the information infrastructure of banks and improvements in the electronic banking for legal and physical entities, the ATM and POS network has been expanded in all cities in the country and the electronic exchange and trade is done on a high level of security. Recently, banks in the Republic of Macedonia started to offer the businesses a new possibility and advantage for direct networking of the companies' ERP systems. Meeting the needs and requirements for various services in the Republic of Macedonia through the use of electronic channels for buying or selling and the use of different e-services increases constantly, but yet there is a significant difference in comparison with the use of e-services in other developed countries. A number of factors and parameters determine the low level of use of electronic services, mainly the small population in the country and the low level of penetration of the Internet, the economic parameters, communication and technology factors, legal regulations, etc.

Electronic banking in the Republic of Macedonia, as one of the most important modules in banking, is being offered by the biggest banks in the country. In 2013,

NLB Tutunska bank offered the first mobile banking service NLBmClick. As leaders among the banks who had implemented mobile banking are also Komercijalna and Stopanska bank. At the end of 2013, the rate of Internet penetration in Republic of Macedonia was 65%, while according to HSBC Global Connections only 9,1% of

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Internet users use the online banking services<sup>8</sup>. According to Global Internet Report 2014, in 2014 the penetration of Internet in Republic of Macedonia was around 61,2%<sup>9</sup>. One outcome is that the percentage of usage of electronic banking services in the last years is gradually increasing, but it poses the question whether the level of customer satisfaction is increasing as well. However, an index of usage of electronic services in the country of Macedonia is still not developed. One of the more difficult questions is whether the population in Republic of Macedonia is prepared for using the offered electronic banking services and what is the level of satisfaction of current users.

One of the main segments of this research paper refers to conducting a practical research of client satisfaction from the electronic banking services in the Polog region and to serve as an indicator for guidelines for improvement. Although banks are mainly centralized in Skopje, the capital of the Republic of Macedonia, the level of satisfaction in the Polog region, as one of the more specific regions in the country, can serve as an indicator for the quality of the electronic services offered. Simultaneously, the research can serve as a motivation for other researches to examine the area of e-banking in the Republic of Macedonia.

### **3. METHODOLOGY**

The research conducted is geared toward the level of customer satisfaction from electronic banking services in the Polog region and aims to confirm the appropriate indicators from the area of electronic services offered from banks in the region, which covers nine communities, including the major municipalities of Tetovo and Gostivar. The appropriate indicators of electronic banking services deriving from the research cover various areas, but the most important, other than demographic data, are: analysis of the importance of various aspects of e-banking, analysis of the user experience, level of satisfaction and various problems related with the usage of electronic banking services. A questionnaire was used to gather the appropriate data,

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<sup>8</sup><https://globalconnections.hsbc.com/global/en/tools-data/treasury-management-profiles/mk/electronic-banking> (accessed on April 11 2015)

<sup>9</sup><http://www.internetociety.org/map/global-internet-report/> (accessed on April 16 2015)

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as a tool for immediate communication and surveying of individuals and legal entities (businesses) which use electronic banking services in domestic banks in the Polog region. The survey was conducted on a total of 255 bank clients, of which 55 respondents answered that they don't use electronic banking services and were eliminated in further analysis of the data. The research was conducted between January and March, 2015. The bank clients who answered the questionnaires were mostly students, managers and owners of various companies from the Gostivar and Tetovo region between the ages of 18 to 65. The questionnaire consisted of 13 questions, from which the first six cover demographic parameters, such as: gender, type of client, status (employed or unemployed), age, level of education and work experience. The other seven questions refer specifically to the usage of electronic banking services, utilizing a five-level Likert scale for measuring the level of satisfaction: extremely satisfied, satisfied, neutral, unsatisfied and extremely unsatisfied. The questionnaire and the results can be viewed in detail in the appendix of this research paper.

### **4. MAIN FINDINGS AND CONCLUSION**

During the analysis of the results the focus was on tracking the user experience and the level of satisfaction in using electronic banking services. Further areas of interest were the correlation of trust for e-banking services with IT knowledge, the correlation of level of customer satisfaction and ease of use, as well as the influence on the age and education level.

- Private clients with high level of education have the highest level of conviction for the importance of the ease of use concept regarding e-banking services. The conclusion is that the level of conviction for the importance of ease of use grows in conjunction with the growth of the level of education.
- Private clients more often access the Internet for conducting financial transactions in comparison to legal entities, while there aren't many differences present between the employed and unemployed groups regarding this area.

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- Legal entities permanently and often use debit cards, with approximately 65%, while credit card usage is around 33%. On the other hand, private clients are using debit cards more extensively than credit cards. Employed respondents are also utilizing cards (credit and debit) in greater percentage than the unemployed group. Card usage grows with age increase – regarding the group around the age of 65, the often use of debit cards increases from 22% to 51%, while the often and permanent usage of credit cards reaches 33%.
- Approximately 50% of private clients are using the bank website to monitor transaction accounts, while the percentage for online monitoring of accounts by legal entities is lower. The use of online banking services is gradually decreasing with the increase of age, while the opposite is true for the level of education. As the level of education increases, there is an incremental improvement in the usage of online banking services.
- With the growth of the level of IT knowledge, there is a trend of gradual improvement in the level of trust. Lack of confidence (trust-insignificant) to e-services is reduced from 20% to 6% of respondents who continuously increase the level of IT knowledge.
- Both private clients and legal entities, with an average of 67.5%, are satisfied with the online monitoring of information and final states on the accounts. There is a similar trend with the level of satisfaction among employed respondents, compared with the unemployed. By the age of 65, approximately 67.4% of the clients are satisfied with the average follow-up of information on the accounts and final states, while regarding the level of education, satisfaction is ranged on average of about 62% to 64% between graduated respondents.
- From the analysis of electronic payment and transfers between accounts, it may be noted that private clients and legal entities are more satisfied with electronic payments, i.e. around 43% of individuals and 51% of legal entities are satisfied. Regarding account transfers, only 19% individuals are satisfied, compared to 54% of legal entities.

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- Among the unemployed respondents, the neutrality regarding the level of satisfaction of electronic banking services is high, while employed respondents are more satisfied with the appropriate e-services. With age increase, satisfaction regarding electronic payments ranges from 39% to 55% and average neutrality covers more than 1/3, while the satisfaction from account transfers until the 65th year is increasing with slight variations, neutrality averages around 56% and dissatisfaction was more pronounced among the younger generation. Respondents with higher levels of education are more satisfied with the realization of electronic payments compared with account transfers.
- Regarding the issue of diligence of responses to requests or statements of requirements (by e-mail, fax) correlated with demographic factors such as the type of client, status, age and level of education, respondents have chosen the "satisfied" option with approximately 36%, the "neutrality" option with 45.4% and "unsatisfactory" option with 18.3%.
- Correlation between the act of receiving and delivery of payment cards, as a final act and the link between bank employees and end users. This correlation above four demographic factors provide the following average results: for the satisfaction option are determined over 50.4%, as a neutral are declared about 26.3% and for the option dissatisfied determined approximately 22.5%.
- Comparison between the four demographic factors such as the type of client, status, age and level of education on one hand and the following clear instructions on the other hand, provide the following average results: the "satisfactory" option with 32.4%, the "neutrality" option with 40.9% and 26.4% declared for "unsatisfactory" option.
- The area of sending SMS for specific information on banking services in relation to the above four demographic factors, resulted in the following observations: the "satisfactory" option with 28,9% of respondents, the "neutrality" option with 55,2% and 15,7% declared for "unsatisfactory" option.

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- The cost of using mobile banking in correlation with the three demographic factors provided the following results: the "satisfactory" option with 22,4%, the "neutrality" option with approximately 67,7% and 9,9% declared for "unsatisfactory" option.

From the analysis of private clients and legal entities about how often they access electronic banking services on a monthly basis on the one hand, against the visit of branches of banks on the other hand, we noticed the following data: 44% of individuals visit affiliates 1-5 per month, which is higher than the level of usage of, ATM (36%), mobile banking (29%) and internet banking (24.3%). Regarding legal entities, the level of access and usage is similar between branch banking and Internet banking and moving on average of about 38.5%. Respondents have more access to ATM and perform commercial transactions through POS terminals 6-10 times a month, including 37% of private clients and 39% of legal entities. As the level of access and usage of banking services across channels is increasing, the proportion of access through internet banking is followed by a slight positive trend of increase compared with the physical attendance of the bank, card operations is evening out to physical visits to the bank, while mobile banking is followed by a major downward trend. From the analysis of respondents access to branch banking compared with age and level of education, the most prominent age groups are between 18-25 and 26-35 (42% and 40% respectively), in addition to secondary and higher education levels (43% and 42.8% respectively).

Users of online banking show the following data for the option of connecting to the Internet for realization of bank transactions between 1-5 times per month: 18-25 (29%), 26-35 (23%), primary education (40%). Hence, it can be noted that respondents aged 18-35 years with secondary education level visit branches and sub-branches of banks 1-5 times a month, in comparison with the alternative possibility to access the appropriate banking services from home via Internet. With use of the same demographic criteria to analyze the option "6-10 times", we noticed that customers with higher education (42%) use online banking, while their counterparts who visit

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banking affiliates are around the same percentage (35.5%). Hence, it can be noted that the level of education influences the increasing access to Internet banking.

The offered electronic banking services in the Polog region are combined with traditional banking services, which makes it difficult to isolate the e-banking services and measure their effect and influence on the level of customer satisfaction. The trend of opening large number of bank branch offices and affiliates (only in Gostivar there are 14 banks and 2 saving banks), and the IT development with the increased internet access in Polog region, contributes to the increasing customer requirements for e-banking services. Above all, the requirements for debit and credit cards are increased; customers are asking if the trade transaction on Internet can be realized with payment cards; the number of requirements for e-banking has also increased; almost every legal entity owns a digital certificate or token for e-banking; customers are asking to receive bank statements via e-mail; notifications for the currency incomes are also received by e-mail; customers are notified via SMS for every transaction through POS terminals, with details for the realized transaction, the final condition and other e-services which banks offer because of the increased customer demand. Lately, banks are offering new opportunities to legal entities for opening e-shops, which is not that attractive for the customers in the Polog region at the moment. The reason is already discussed in the previous section of the paper, where affiliate banking for private clients is on the first place, where around 44% of respondents visit banks 1 to 5 times monthly, in comparison with the e-banking, ATM and mobile banking.

Through our systematic research of the user experience and satisfaction from the electronic banking services in the Polog region, we noticed some opportunities and recommendations for improvement of the level of the customer satisfaction. The first recommendation is to increase the level of customer trust regarding e-services in the group of respondents with low level of IT knowledge, because the analysis shows that with the increased level of information, the level of distrust was reduced. Banks should aim to offer the electronic banking advantages to the group of employed respondents which do not connect to the Internet to perform financial transactions (19,5%). They

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should target clients in every single group of the demographic factors: type of client, status, age and level of education, and also to consider the customer feedback regarding the user experience. The research shows that, in average, 44% of respondents are sometimes using debit cards, which is a number that causes concern, while on the other side around 37.5% of respondents have never utilized credit cards. Banks should analyze this data in more detail, in order to intervene in the four demographic groups that are mentioned, in regard to improving their user experience in using the electronic banking services. In average, 43% of these four demographic groups are rarely using e-banking, while 27% have never used e-banking. The level of customer satisfaction from the account and final condition information is satisfactory from one side, while on the other side banks should follow the movement of the level of neutrality and unsatisfactory options for electronic payments and account transfers. The average level of neutrality for electronic payments is around 31,2%, the level of neutrality for account transfers is approximately 48.5%, and the "unsatisfactory" option ranges from 8.7% to 13.8%. It is noticeable that private clients mostly visit affiliate banks (1 to 5 times) compared to using electronic banking services, ATM or mobile banking. Private clients with secondary and higher education are visiting the affiliates 1-5 times monthly more in comparison with the other alternatives for electronic access on the banking services. Based on the analysis, a conclusion can be made that the level of education is influencing the reorientation and increases the level of access of electronic banking services versus physical visits to the bank, with clients with higher level of education utilizing e-services more often than the other education groups.

The data in this research can be expanded with analysis of other regions in the Republic of Macedonia, as well as other countries in the Balkan. This research is planned as one platform for a variety of studies in the field of management, marketing, e-business processes, human resources, banking system, sociology and other areas, as well as an initial point for similar studies in the future.

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### REFERENCES

1. Kenneth C. Laudon, Carol Guercio Traver, E-Commerce: business, technology, society, 2009, 5<sup>th</sup> Edition, 0136007112, published by Pearson Education, Inc, publishing as Prentice Hall, Copyright 2009, pg. 13-18.
2. Kotler P., Keller K., (2012), Marketing Management, 14th edition, Prentice Hall, Pearson, p. (5-126).
3. Meyer T., (2006). Online banking, what we learn from the differences in Europe, Deutsche Bank research, February.
4. Roig J., Garcia J., Tena M., Monzonis J., (2006), „Customer perceived value in banking services“, International Journal of Bank Marketing, Vol. 24 No: 5, pp.266 – 283.
5. Seybert H., (2012). Internet use in households and by individuals in 2012, Industry, trade and services, Eurostat, Statistics in focus, 50/2012.
6. State Statistical Office of Macedonia, Information Society-Announcement, No.8.1.11.25 of 21.10.2011
7. United Nations E-Government Survey 2010, Department of Economic and Social Affairs, Leveraging e-government at a time of financial and economic crisis, United Nations New York, 2010
8. United Nations E-Government Survey 2014, Department of Economic and Social Affairs, E-Government for the future we want, United Nations New York, 2014.
9. Zeithaml et al., (1990). Delivering Quality Service, Balancing Customer Perceptions and Expectations, p.21-23.

### Web-sources

1. <https://www.ama.org/AboutAMA/Pages/Definition-of-Marketing.aspx> (accessed on 3rd of January, 2015)
2. [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc\\_pibi\\_pai&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_pibi_pai&lang=en)(accessed on 5th of April, 2015)
3. <https://globalconnections.hsbc.com/global/en/tools-data/treasury-management-profiles/mk/electronic-banking> (accessed on April 11 2015)
4. <http://www.internetociety.org/map/global-internet-report/>(accessed on April 16 2015)

# LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

## ANNEX

### QUESTIONNAIRE

QUESTIONNAIRE FOR MEASURING THE CUSTOMER'S SATISFACTION AND EXPERIENCE FROM THE BANK'S ELECTRONIC SERVICES IN THE REGION OF POLOG

The gathered data will be used strictly for the master thesis's necessities and will be presented strictly in sublimated form.

- |   |  |  |   |
|---|--|--|---|
| <b>1. Gender</b><br>a). Male<br>b). Female  | <b>2. Type of client</b><br>a). Physical individual<br>b). Legal entity  | <b>3. Status</b><br>a). Employed<br>b). Unemployed   | <b>4. Do you use electronic banking?</b><br>a). Yes<br>b). No |
| <b>5. Age</b><br>a). 18-25<br>b). 26-35<br>c). 36-45<br>d). 46-65<br>e). More than 65 | <b>6. Level of education</b><br>a). Primary education<br>b). Secondary education<br>c). Upper secondary education<br>d). High education<br>e). Master of Science | <b>7. Work experience</b><br>a). Less than a year<br>b). 1-2 years<br>c). 2-4 years<br>d). 4-10 years<br>e). 10-20 yeras<br>f). More than 20 years |   |

8. Please indicate how would you evaluate the following aspects of the e-banking				
	Very significant	Significant	Partly significant	Insignificant
E-service quality				
Technology that is being used				
Speed of access				
Loyalty in the bank's e-service				
Reduction of transaction time				
Ease of use				
Tech-savvy (knowledge)				

**9. How would you evaluate your knowledge in using the electronic services in the banks?**

- a) No knowledge at all
- b) Beginner in using information technology
- c) Average knowledge
- d) Advanced computer knowledge

10. Your user experience while using the technology (Tick the ones which are applicative)				
	Never	Sometimes	Often	Permanently
Connecting to the Internet for performing financial transactions				
Debit card services				
Credit card services				
Online banking services (tracking transaction account)				
Other				

11. How often do you use the following e banking services monthly					
	Zero	1-5 times	6-10 times	11-15 times	More than 15 times
Affiliate banking					
Internet banking					
ATM					
Mobile banking					

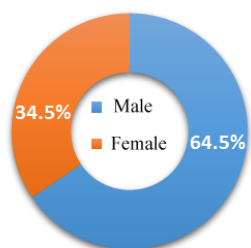
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12. Satisfaction from using the e-banking services					
Criterion:	Highly satisfactory	Satisfactory	Neutral	Unsatisfactory	Highly unsatisfactory
Information for the account and the final condition					
E-payment					
Transfer from account to account					
Answer to the demand „statement of demand“ ( through e-mail or fax)					
Diligence in sending the cards					
Clear instruction and online direction					
SMS for specific information on the banking service					
Cost of using mobile banking					
Other					

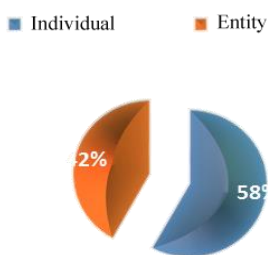
13. Please indicate how often you encounter the following problems when using the bank's electronic services				
	Permanently	Very often	Sometimes	Never
Takes too much time				
Inadequate technology				
Lack of fast service				
Lack of clear guidelines				
Other				

### Results

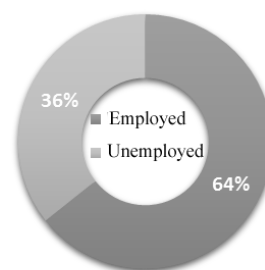
**Graph 4.1**  
Gender structure



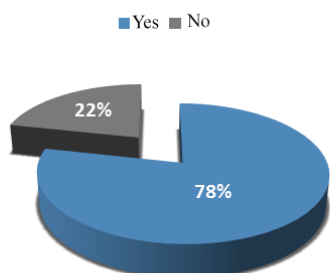
**Graph 4.2**  
Type of client



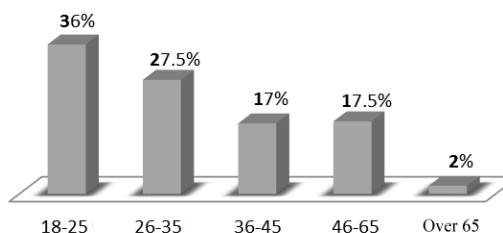
**Graph 4.3**  
Employment status



**Graph 4.4**  
Do you use e-banking?

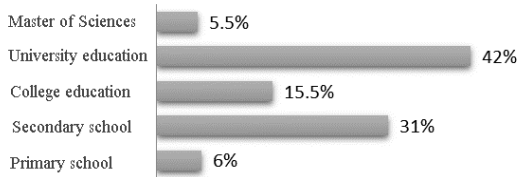


**Graph 4.5**  
Age

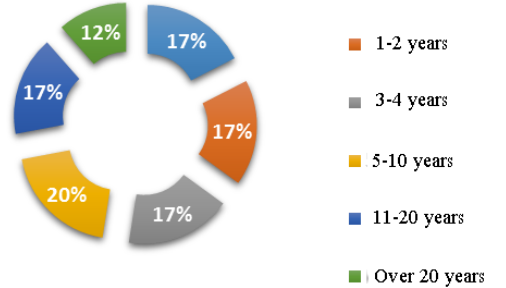


# LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

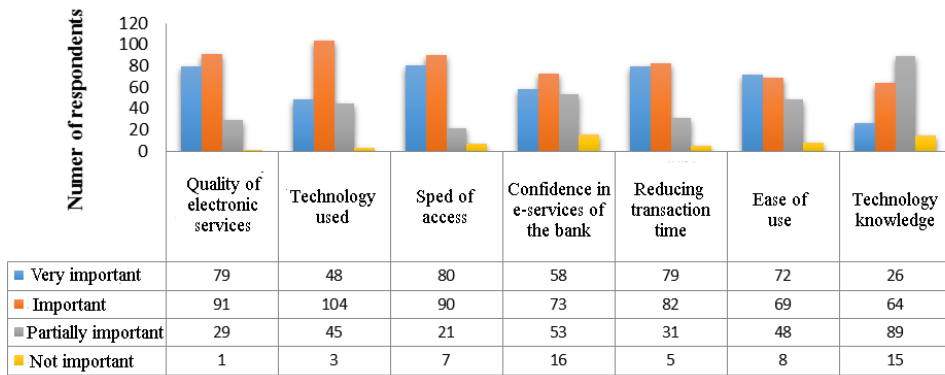
**Graph 4.6**  
Achieved level of education



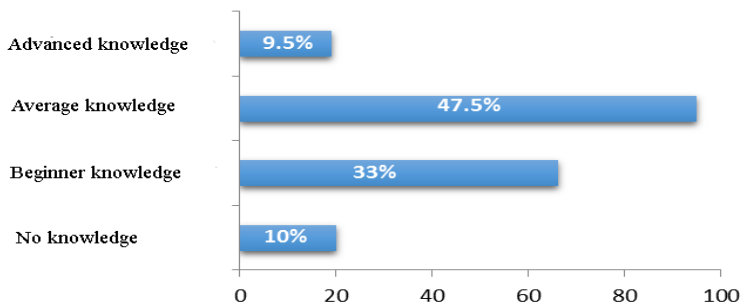
**Graph 4.7**  
Work experience



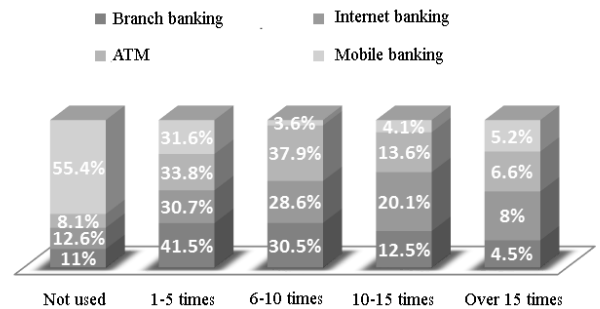
**Graph 4.8.**  
Importance of following aspects of e-banking



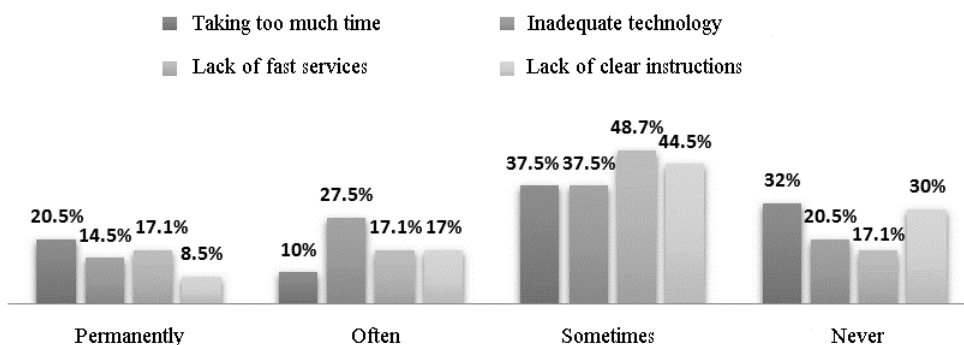
**Graph 4.9**  
Level of knowledge for using the electronic services of banks



**Graph 4.10**  
e-banking rate per month



**Graph 4.11**  
Problems in using the banks e-services



## LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

**Chart 4.1 User experience in using the technology**

	Connecting to Internet for accomplishing financial transactions		Debit card services		Credit card services		Online banking services (tracking transaction account)	
	n. of resp.	percentage	n. of resp.	percentage	n. of resp.	percentage	n. of resp.	percentage
<b>Never</b>	28	14%	9	4,5%	77	39%	40	20%
<b>Sometimes</b>	72	36%	90	45%	77	39%	81	41%
<b>Often</b>	52	26%	69	34,5%	28	14%	51	26%
<b>Permanent</b>	48	24%	32	16%	15	8%	27	13%

**Chart 4.2. Satisfaction of using the e-banking**

Criteria	Extremely satisfied		Satisfied		Neutral		Unsatisfied		Extremely unsatisfied	
	n. of resp.	percentage	n. of resp.	percentage	n. of resp.	percentage	n. of resp.	percentage	n. of resp.	percentage
Information about the account and the final balance	40	20%	135	67,5%	20	10%	5	2,5%	0	0
E-payment	24	12,1%	91	46%	69	34,8%	14	7,1%	0	0
Account to account transfer	14	7%	58	29,1%	94	47,2%	27	13,6%	6	3%
Answer to the request "statement of request" (via e-mail, fax)	6	3%	67	34%	89	45,2%	31	15,7%	4	2%
Diligence in sending the cards	5	2,5%	93	47%	54	27,2%	36	18,2%	10	5%
Distinct instructions and onlinedirectory	4	2%	60	30,3%	80	40,4%	45	22,7%	9	4,5%
SMS for specific information of banking services	9	4,6%	45	22,8%	108	54,8%	27	13,7%	8	4,1%
Expenses when using mobile banking	5	2,6%	39	20%	135	69,2%	13	6,7%	3	1,5%

**Chart 4.3 The relation between the level of knowledge and the confidence towards e-banking services**

Confidence towards e-banking	The level of knowledge in using the electronic services				
	No knowledge at all	Beginner at using IT	Average knowledge	Advanced computers knowledge	Total

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Very significant	5	15	29	9	58
Significant	8	27	33	5	73
Partly significant	3	20	26	4	53
Insignificant	4	4	7	1	16
<b>Total</b>	<b>20</b>	<b>66</b>	<b>95</b>	<b>19</b>	<b>200</b>

**Chart 4.4. The relation between the easiness of use and the level of education**

Acquired level of education		Ease of use				Total
		Very significant	Significant	Partly significant	Insignificant	
	Primary education	5	2	5	0	12
	Secondary education	15	29	16	1	61
	College education	7	8	11	4	30
	University education	38	27	16	2	83
	Master of sciences	7	3	0	1	11
	<b>Total</b>	<b>72</b>	<b>69</b>	<b>48</b>	<b>8</b>	<b>197</b>

**Chart 4.5. The relation between the user experience while connecting to Internet to perform financial transactions and the demographic factors**

Demographic factors		Connecting to Internet to perform financial transactions			
		Never	Sometimes	Often	Permanent
Type of client	Individual	13	40	37	26
	Entity	15	32	15	22
Status	Employed	25	40	28	35
	Unemployed	3	32	24	12
Age	18-25	8	27	24	13
	26-35	6	15	15	19
	36-45	6	13	6	9
	46-65	6	16	7	6
	Over 65	2	1	0	1
Acquired level of education	Primary education	1	3	3	5
	Secondary education	9	32	8	13
	College education	5	12	7	7
	University education	12	23	30	19
	Master of sciences	1	2	4	4

## LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

**Chart 4.6 The relation between the user experience while using debit card services and demographic factors**

Demographic factors		Debit card services			
		Never	Sometimes	Often	Permanent
Type of client	Individual	6	64	32	14
	Entity	3	26	37	18
Status	Employed	6	47	54	21
	Unemployed	3	43	15	10
Age	18-25	2	42	16	12
	26-35	3	22	20	10
	36-45	2	14	14	4
	46-65	2	9	18	6
	Over 65	0	3	1	0
Acquired level of education	Primary education	0	4	7	1
	Secondary education	5	24	24	9
	College education	2	16	9	4
	University education	2	44	23	15
	Master of sciences	0	2	6	3

**Chart 4.7 The relation between the user experience while using credit card services and demographic factors**

Demographic factors		Credit card services			
		Never	Sometimes	Often	Permanent
Type of client	Individual	54	44	7	8
	Entity	23	33	21	7
Status	Employed	36	52	25	13
	Unemployed	41	25	3	1
Age	18-25	39	24	5	3
	26-35	14	24	8	7
	36-45	13	13	7	1
	46-65	9	14	8	4
	Over 65	2	2	0	0
Acquired level of education	Primary education	2	6	4	0
	Secondary education	31	16	11	3
	College education	13	10	3	4
	University education	29	41	8	6
	Master of sciences	2	4	2	2

**Chart 4.8 The relation between the user experience while using e-banking services and demographic factors**

Demographic factors		E-banking services			
		Never	Sometimes	Often	Permanent
Type of client	Individual	23	41	37	15
	Entity	17	40	14	12
Status	Employed	26	57	29	15
	Unemployed	14	24	22	11

## LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

<b>Age</b>	18-25	13	20	27	12
	26-35	9	24	15	7
	36-45	4	18	6	5
	46-65	12	17	3	3
	Over 65	2	2	0	0
<b>Acquired level of education</b>	Primary education	1	7	2	2
	Secondary education	22	22	8	9
	College education	6	10	9	6
	University education	10	39	27	8
	Master of sciences	1	3	5	2

**Chart 4.9. The relation between the demographic factors and satisfaction of the account and final balance information**

Demographic factors		Account and final balance information				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
<b>Type of client</b>	Individual	17	78	16	5	0
	Entity	23	57	4	0	0
<b>Status</b>	Employed	37	79	8	4	0
	Unemployed	2	56	12	1	0
<b>Age</b>	18-25	7	55	10	0	0
	26-35	17	30	4	4	0
	36-45	8	23	3	0	0
	46-65	7	25	3	0	0
	Over 65	1	2	0	1	0
<b>Acquired level of education</b>	Primary education	2	9	0	1	0
	Secondary education	11	41	10	0	0
	College education	11	15	4	1	0
	University education	12	64	6	2	0
	Master of sciences	4	6	0	1	0

**Chart 4.10 The relation between the demographic factors and satisfaction of e-payments**

Demographic factors		E-payment				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
<b>Type of client</b>	Individual	13	49	43	10	0
	Entity	11	42	26	4	0
<b>Status</b>	Employed	18	66	34	8	0
	Unemployed	5	25	35	6	0
<b>Age</b>	18-25	5	28	32	7	0
	26-35	10	29	11	3	0
	36-45	5	15	12	2	0

## LEVEL OF CUSTOMER SATISFACTION FROM ELECTRONIC BANKING SERVICES IN THE POLOG REGION

Acquired level of education	46-65	3	18	13	1	0
	Over 65	1	1	1	1	0
	Primary education	1	8	2	1	0
	Secondary education	6	23	29	4	0
	College education	7	15	7	2	0
	University education	9	38	30	5	0
	Master of sciences	1	7	1	2	0

**Chart 4.11 The relation between the demographic factors and satisfaction of account to account transfer**

Demographic factors		Account to account transfer				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
Type of client	Individual	5	22	64	21	4
	Entity	9	36	30	6	2
Status	Employed	7	48	53	13	6
	Unemployed	6	10	41	14	0
Age	18-25	6	12	36	16	2
	26-35	6	15	25	7	2
	36-45	1	16	12	2	2
	46-65	1	15	17	2	0
Acquired level of education	Over 65	0	0	4	0	0
	Primary education	1	6	5	0	0
	Secondary education	4	15	32	9	2
	College education	3	8	15	4	1
	University education	5	24	39	12	3
	Master of sciences	1	5	3	2	0

**Chart 4.12 The relation between the demographic factors and satisfaction from the answer to the request "statement of request" (via e-mail, fax)**

Demographic factors		Answer to the request "statement of request" (via e-mail, fax)				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
Type of client	Individual	2	36	51	21	3
	Entity	4	31	38	10	1
Status	Employed	4	46	56	17	3
	Unemployed	2	20	33	14	1
Age	18-25	2	21	31	15	2
	26-35	1	21	23	6	2
	36-45	2	11	15	6	0

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Acquired level of education	46-65	1	13	18	3	0
	Over 65	0	1	2	1	0
	Primary education	0	5	5	2	0
	Secondary education	2	20	30	8	1
	College education	1	10	13	4	1
	University education	3	29	36	15	1
	Master of sciences	0	3	5	2	1

**Chart 4.13. The relation between the demographic factors and the diligence in sending the cards**

Demographic factors		Diligence in delivering the cards				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
Type of client	Individual	3	55	31	20	6
	Entity	2	38	23	16	4
Status	Employed	4	57	36	24	6
	Unemployed	1	36	18	12	4
Age	18-25	1	34	18	16	3
	26-35	2	21	21	5	4
	36-45	1	18	5	9	1
	46-65	1	17	10	6	1
Acquired level of education	Over 65	0	3	0	0	1
	Primary education	1	5	4	1	1
	Secondary education	2	32	14	10	4
	College education	1	12	10	5	2
	University education	1	39	22	19	2
	Master of sciences	0	5	4	1	1

**Chart 4.14. . The relation between the demographic factors and the satisfaction of distinct instructions and online directory**

Demographic factors		Distinct instructions and online directory				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
Type of client	Individual	2	40	46	20	6
	Entity	2	20	34	25	3
Status	Employed	3	31	51	36	6
	Unemployed	1	28	29	9	3
Age	18-25	1	27	29	13	1
	26-35	2	19	17	12	4
	36-45	1	7	14	10	2

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<b>Acquired level of education</b>	46-65	0	6	18	9	2
	Over 65	0	1	2	1	0
	Primary education	0	1	7	3	1
	Secondary education	1	14	29	13	4
	College education	0	12	11	6	1
	University education	2	26	31	22	3
	Master of sciences	1	7	2	1	0

**Chart 4.15. The relation between the demographic factors and the satisfaction of expenses when using mobile banking**

Demographic factors		Expenses when using mobile banking				
		Extremely satisfied	Satisfied	Neutral	Unsatisfied	Extremely unsatisfied
<b>Type of client</b>	Individual	4	29	72	4	2
	Entity	1	10	63	9	1
<b>Age</b>	18-25	3	14	46	7	0
	26-35	1	15	31	3	3
	36-45	0	7	25	2	0
	46-65	1	3	30	0	0
	Over 65	0	0	3	1	0
<b>Acquired level of education</b>	Primary education	0	3	8	1	0
	Secondary education	2	10	47	1	1
	College education	1	8	18	2	0
	University education	2	13	58	7	2
	Master of sciences	0	5	4	2	0