

# Digital Marketing in Retail Banking – Client Attitudes Analysis

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## Abstract

The process of digitalization in the banking sector aims at providing faster, better, and more efficient service to its customers and to set an easier communication and interactive relationship between the bank and the client. From the marketing point of view, the digitalization of the banking sector has a long-term goal of raising the quality of banking services, which ultimately leads to an increase in consumer satisfaction. This article aims to determine the attitudes of bank clients about digitalization and the use of certain means of communication that are a product of this process (i.e. social networks) as well as the will to accept digital communication channels with the bank. For this purpose, a survey was conducted in the Republic of Serbia with 678 bank clients. Statistical methods such as ANOVA, Tukey Test, Chi Square test, and Pearson Correlation were used to test the hypotheses. The results showed that there is a statistically significant relationship between the use of digital tools and age, respectively the level of education. There are also statistically

significant differences both between different age groups and between different levels of education. These two factors also show correlations in terms of the purposes of using digital tools. Another important result of this research is that bank clients do not value too much the cost-benefit by suggesting that time is valued. The overall assessment of the information that banks provide through their websites is positive (59%) but the rest did not respond (24%) or did not express an opinion (11%) or even expressed negatively (6%) which is a signal to banks that they need to review and adopt advanced digital marketing strategies.

**Keywords:** digital marketing, retail banking, client attitudes, bank clients, social networks

**JEL:** M31, G21.

## 1. Introduction

One of the key tasks of a modern bank is to find ways and methods for achieving a sustainable competitive advantage in increasingly competitive financial markets. Banking, as a specific economic activity, is determined by the type and content of banking institutions and operations, which condition each other and make the whole of the relevant

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banking sector, with a strong impact on the overall financial base and system.

The focus on consumers, especially in recent years, is expanding in service-oriented industries, including banks. The needs of financial services users are changing dynamically and for this reason, it is imperative that banks develop long-term business relationships with their clients in order to remain profitable. Modern trends in the global market environment will increasingly require businesses, especially banks, to change their business behavior. The bank's integrated marketing communications help the bank establish a lasting and effective relationship with its customers and increase the efficiency of its services. This is greatly aided by the digitalization of the banking business and the use of numerous social networks as a means of communication between the bank and clients.

Digitalization, innovation, and modern technologies are expressions that we hear more and more often and will do so even more in the future. Once the peak of digitalization in banking was the ATM, while today you can practically keep the bank "in your pocket", i.e. to be more precise "in your hand" if you are a mobile banking user.

Digital banking is a broad term and is interpreted differently. However, what all interpretations have in common are concrete benefits for the user. We mean, first, saving time, and then saving money, because all transactions that you perform online are up to 10 or 15 times cheaper than when they are performed in the traditional way, by coming to the bank.

The subject of the article is digitalization in banking, that is, the integration of digital communications and sales channels, which makes it easier for clients of banks to use

banking products and services, and for banks a more efficient way of communicating with clients. Opportunities for improving business results are reflected in technological solutions for better communication with clients, insight into their needs, and efficiency of business processes. In order to have a competitive advantage, banks need to invest in promoting services and innovating in their businesses, but also to improve and integrate their communication and sales channels. In this way, it creates greater value for the clients of the bank as well as for the banks themselves.

The aim of this research is to determine the attitudes of bank clients about digitalization by understanding the extent of use of the digital tools in banking services, which is the assessment of the customers about them, and which of those services are most appreciated and used. The research also aims at understating the correlation between age and the level of education in the clients' attitudes. The research will show the clients' perception of the new technologies used by banks in their work, as well as the key benefits for clients in the process of using these modern technologies in banking.

## 2. Literature review

If the last decade of the banking business was marked by excessive credit expansion, today we are talking about a decade of its digital transformation. Due to the influence of digital media, large technological and changes in consumer needs, banks are exposed to digital disruption of their business model externally and internally, which leads to innovation in products, services, distribution and sales channels, business models, and organizational culture.

Digital marketing in the XXI century has changed the environment of doing business,

moving from doing business in the traditional way to the modern one. The 4Ps of marketing (Product, Promotion, Price, and Place) do not have the right effect, to be offered in a traditional way of doing business. Today we are living in a world of internet networking, so services and products must be provided digitally. Companies adopting digital marketing gain momentum to maintain an easy and smart trading process because the Internet has become a trading marketplace (Dastane, 2020).

Business already knows no geographical, cultural, or ethnic boundaries. Even in Serbia at the time of the Covid-19 pandemic, the role of digital marketing was clearly emphasized, especially when conducting banking transactions and online purchases. The shift towards online shopping in China is underscored by Craven et al. (2020), moreover, the authors consider that “Customers’ changing preferences are not likely to go back to pre-outbreak norms”. Following this likely change in the customer buying preference, the business model of banks will be strongly influenced, the channels of distribution being one of the most impacted banking dimensions (Pop, 2020). Hoe (2020) reports some trends in consumer behavior determined by the measures to limit physical contact and cash used during the pandemic crisis: there was an increase in the registration of banking accounts with digital banks in South-East Asia; similar, the Management & Marketing. Challenges to the Knowledge Society opening for online banking accounts of small and medium-sized enterprises in Malaysia intensified; the limit for contactless payment was increased in the UK (Baicu et al., 2020).

Innovations are the most important part in the retail banking system. Technology has increased interaction of bank-client relations.

According to a study by Mbama et al. (2018), banks benefit from interactive service innovations which can create value both for individual customers and firms. In marketing, managers are important, as they can innovate to improve services and firms’ performance (Mbama et al., 2018)

Besides the benefits created by technology, reducing some costs, and reducing the number of employees, banks have also been challenged in terms of cybersecurity. However, there is tremendous progress in providing so many online services, low cost, and error-free. According to a study by Ananda et al. (2020), digital banking has emerged as a new mode to conduct banking transactions like money deposits, transfers, withdrawals, current, and savings account management, loan management, bill payment, applying for financial products, and account services through an electronic platform. Online banking, mobile banking, and tablet banking, mobile check deposits, tax alters, e-statements, and online bill payments are popular digital banking services at a lower cost with zero errors (Ananda et al., 2020).

Due to their quick development, social media have conditioned the change of marketing models and promotional messages. Tinnila (2012) and McKinsey (2012), (as cited in Domazet & Neogradi, 2019) dealt with the analysis of trends affecting changes in distribution banking channels. The relevance-accessibility model (RAM model) can be used to investigate the impact of marketing on brand choice (Baker, Lutz, 2000). Using this model, the authors changed the observation time, so instead of the moment which broadcasted the promotional message, the moment of brand choice was taken into consideration. In this sense, they differ advertising message

involvement (AMI) (Domazet & Neogradi, 2019).

In Serbia, the financial sector uses all promotional forms. The results of the research show that Serbian financial organizations use all forms of promotion in their marketing campaigns: 57% advertising, sales promotion 6%, public relations 10%, personal selling 5%, direct marketing 7%, sponsorship 11 %, other forms 4% (Domazet & Hanic, 2020). Due to the massive use by customers of all social and professional categories, mobile banking is among the most important elements of the banking system. The use of business applications results in the processing of information in the bank and devices such as ATMs, POS terminals at retail outlets, and applications such as electronic and mobile banking (Domazet & Neogradi, 2019). However, the biggest effect of mobile banking remains on the new generations and among those born during the expansion of social media and advanced online platforms.

Mobile banking is being used also by the operator in Serbia, which has almost everything digitalized and automated. In Serbia, Telenor Bank enables the process of opening an account exclusively through a mobile or web application. Due to the rapid adoption of mobile banking, some innovative banks have opted for partnerships with telecommunications companies (telco-bank partnerships), such as Caixa, Santander, and Telefonika (Caixa 2013). Along with physical branch banking, banks offer a variety of substitute channels, such as ATMs, online banking, and mobile banking (m-banking) to provide their banking services. Among all new service delivery platforms, mobile banking has emerged as the most cost-effective and efficient channel for delivering banking services (Moser, 2017).

By using digital innovations, retail banks can get various benefits at the strategic and operational levels, such as the prominence of strategic planning and equity endowment, openness to customers' engagement and relationships; qualification of the bank management; implementation of new bank marketing strategies; quality of management information; installation of modern technologies, designing banking products and services; sales channels optimization; competitive operational cost-structure; modernization of risk assessment models (Sloboda, Dunas, & Limański, 2018). Consumers have reacted positively to untact technology, and new business models reflect customers' preference for a "comfortable cut-off" from communication over "uncomfortable communication". Many young consumers who are accustomed to digital devices tend to feel uncomfortable around people and prefer "solo shopping". According to Kim et al. (2018), cost reduction, immediate satisfaction, abundant information, and interpersonal fatigue are the main drivers for the proliferation of untact technology in the market (Lee & Lee, 2020).

However, the COVID-19 pandemic has shown that, in isolation, the use of digital tools, communication, and digital services can be alternative solutions to many problems. Banks also found themselves in front of a big and unexpected change, influencing them in designing new measures to meet customer requirements and their maintenance and expansion of new clientele in new circumstances. In the long term, it will lead to a stable financial sector that can be elastic to a crisis such as is this nowadays (Theiri & Alareeni, 2021).

Crises can also be an opportunity to look for new ways of delivering services to customers, but they can also pose open risks.

But, also it must be said that, according to a lot of research, “the most critical factor in adopting change is the attitude of employees. Whether acting autonomously or being motivated by their trade unions, their attitude towards change also determines the degree of success or failure of any venture they consider as risking their employment status quo” (Kitsios, Giatsidis, & Kamariotou, 2021). However, banks in Serbia have changed in line with the technological changes that have taken place in the last two decades, becoming more competitive with other banks in the region.

Even if mobile marketing techniques have developed constantly over the last years, consumers are still sensible to some essential issues like security, trust, personalization, ease of use and different cultural traits that can determine different behaviors regarding mobile technology acceptance in various services consumption contexts, including banking services (Gârdan et al., 2011).

Some reports have shown that 60% of retail banks in the world do not make significant use of social media to deepen their relationships with their customers, while more recent research reports that over 90% of the world's largest banks are present on Facebook, and 88% on Twitter (Deloitte, 2013). According to Deloitte, five social networks, most commonly used by the analyzed banks, were analyzed: Facebook, Twitter, Instagram and LinkedIn. Based on the empirical research, the following results were obtained: 23 banks follow a Facebook account, 12 banks are present on Twitter, 22 banks have a YouTube channel, 12 banks have an Instagram profile, while 24 banks have a LinkedIn account (9 of which have no recorded activity). The analysis shows that the sites of the liveliest social activities of the surveyed banks are Facebook and

YouTube, noting that banks are predominantly using YouTube channels to post videos used in television propaganda activities.

The authors (Kohali & Sheleg, 2011) analyze the first virtual branch on Facebook that opened in New Zealand in 2010, which offers banking advice to its clients, but without the ability to realize transactions. Although this channel is still limited, it is the first stage toward harnessing the huge potential that social networks have.

There are opinions (Abubakar & Tasmin, 2012) that the application of new technologies affects the greatest potential and development of retail banking. No matter what the benefits of new technology, it can be a limitation or even a threat if the system itself is not sufficiently protected.

A majority of mentioned authors refer to young potential users as the Net-Generation, as they use Web 2.0 and represent exceptional marketing potential for the entire financial sector. There are also opinions that believe that the implementation of technology in the banking industry should be focused on process automation and monitoring. The use of business applications results in the processing of information in the bank and devices such as ATMs, POS terminals at retail outlets and applications such as electronic and mobile banking. The latest distribution channel is mobile banking, which is used by financial organizations and in which technology has an impact on creating value for both clients and the bank (Lotfzadeh & Ghorbani, 2015).

Accenture (2013) estimates that in the North American market, universal banks will lose 35% of their share by 2020 from financial institutions using the internet and mobile technology if they do not innovate their current business model. Development of

the IT sector, which enabled the formation of databases and their continuous monitoring, made a major contribution to the development of payment applications. At the same time, it enabled banks to look at banking risk exposure and its measurement using modern statistical and mathematical models. This gave banks the ability to manage their portfolios.

One of the most challenging aspects of mobile banking is the clients' safety and trust. Surveys conducted on mobile banking services show that about 51% of bank customers do not trust this type of banking service, about 74% of respondents believe that the use of mobile banking is associated with numerous risks, while about 88% of surveyed clients believe that there is a risk of manipulation when banking transactions are made through mobile devices because of the hackers that can interfere (Sanader, 2014, p.105)

On this occasion, we have concluded that most of the papers and research deal with the analysis of the offer of digital services of banks as well as the reaction of clients to that offer, and a small number of papers deal with the possibilities of marketing activities based on providing digital services of banks. For that reason, we have shifted our interest to the field of researching marketing opportunities arising from digital services provided by the banking sector in the Republic of Serbia, based on the attitudes and preferences of the bank clients.

In this regard we can formulate the research hypothesis as follow:

H1: There is a positive correlation between the use of digital tools and the level of education of customers;

H2: There is a negative correlation between the use of digital tools and the age of customers;

H3: Age and level of education have a correlation linkage with purposes of using bank services.

### 3. Procedures and methods

In accordance with the previously defined goal of the research to point out the possibility of applying new technologies in the work of banks and the application of integrated marketing communications and digital technologies, as well as, in that context, explain the subject framework and precise research hypotheses, an empirical research framework was designed. For the purpose of this research, we have conducted a research addressed to bank clients in the Republic of Serbia. The type of the research was quantitative and consisted of a questionnaire with questions regarding banks clients' preferences in using social networks and digital bank sales channels.

One part of the structure of the questionnaire was structured through the Likert scale of ranking in five levels, from "1 - strongly disagree" to "5 - strongly agree". The first part of the questionnaire for the bank's clients includes questions related to the socio-demographic characteristics of the respondents. When designing this part of the questionnaire and selecting the characteristics of the respondents, those characteristics that often appear as a subject of consideration in research studies of a similar character were considered. The second part of the questionnaire refers to the specific attitudes of respondents about the use of new technologies in banks, as well as the need to adapt them to customers.

To measure the (dis)agreement of the participants in the survey regarding each of the above statements, the Likert scale with five levels of intensity was used. Respondents



expressed their opinion on each statement by choosing (rounding off) one of the offered values.

### 3.1 The data

The survey was conducted in May, June, and July 2020 among respondents of different gender, age, and employment status who were presumed to use the services of banks in cities in the Republic of Serbia (Belgrade, Novi Sad, Nis, Kragujevac, Leskovac, Vranje, Pirot, Krusevac, Kraljevo, Bor, Zajecar, Uzice, Bujanovac). Questionnaires were distributed partly physically (about 200 questionnaires), partly online using the Google Questionnaire (about 800 questionnaires) and 678 respondents answered them. We tried to distribute the questionnaires equally throughout the territory of the Republic of Serbia. Following the collection of the questionnaires, an appropriate database was formed.

### 3.2 The sample

The basic research sample included 678 bank clients who were interviewed by email or personally at the bank branches. The research sample can be considered representative because the number of respondents was 678, and it was a free random selection of respondents. In accordance with the Law on Banks of the Republic of Serbia, "a bank client is any person who uses or has used the services of a bank or a person who has approached the bank for the use of services and identified as such by the bank" (Serbian Parliament, 2015). Information about the number of bank clients is official information in the Statistics of the National Bank of Serbia (NBS). According to NBS statistics, the average number of bank clients in 2020 was 9.017.897. This number includes all accounts of private persons in banks, which means that

one person has more than one account in banks. Also, according to the official data of the NBS, every person who is a client of a bank has an average of 2,3 accounts opened. Therefore, in order to reach the exact number of bank clients, the initial number should be corrected by the number of accounts per client and we come to the data that in the Republic of Serbia in 2020 there were 3.920.824 bank clients. So, we are dealing with a population of 3.920.824 bank clients in 2020 and 678 questionnaires conducted from about 1000 distributed have provided us with a margin of error of 4% which provides us with a good approximation of the reliability interval.

### 3.3 The method

The average values of answers to the research questionnaire questions were compared using SPSS application statistical software. To check the validity of the hypotheses, descriptive statistics and multivariate analysis of variance were performed. Regarding tests and analysis under the SPSS program, we will use ANOVA analysis of variance in order to prove the influence of one or more factors on the variability of a phenomenon. To determine between which age groups there is a difference in the use of social networks, the Tukey criterion is used, as a part of the ANOVA procedure. This method is also used to measure if the level of education has an influence on the use of social networks.

This method not only shows the division of the observed variability into appropriate components but also summarizes the calculations that allow testing the significance of differences between the arithmetic means of the given subsets of data if certain assumptions are met. Speaking about analysis of variance, R. Fisher, the founder of

analysis of variance, once said: “analysis of variance is not a mathematical theorem, but a simple method of editing arithmetic facts so as to single out and show the essence of data set behavior with extreme simplicity” (Searle 1992).

For the purpose of testing the dependency modality of two features, the Chi-square test of independence was applied. The Pearson correlation coefficient is used to check for the existence of a quantitative relationship between the variables.

#### 4. Results and discussions

In this section, we will present the results of the research by initially showing the results regarding the descriptive statistics for the general characteristics of the respondents, such as gender, age, and education, and then the results regarding the use of banking services and the means they mostly use. Then, the hypothesis test results using the methods presented in the section above will be presented.

#### 4.1 Descriptive statistics

According to the latest census in the Republic of Serbia (the last census was made in 2011), women comprised up to 51,3 percent of the total population, but as shown in table 1, the gender-related statistics have a discrepancy between the population structure and the sample. Women gave more answers than men, respectively 59% of respondents were women, and 41% were men.

On the other hand, as shown in table 1, most of the respondents belong to the age category of up to 30 years (40.7%), followed by the categories of respondents from 31 to 40 years (23.0%), then from 41 to 50 years who have a percentage representation in the sample structure of 15.6%, then the category from 61 to 70 years (with a share of 11.1%), followed by the category of respondents aged 51 to 60 years with 7.5% of the total number of respondents and finally the respondents with 71 and more years make 2.1 % of all respondents. A majority of responders (63.7%) are younger than 41 years.

**Table 1.** Descriptive statistics about socio-demographic characteristics

Modalities	Frequency	Percent	Valid Percent	Cumulative Percent
<b>GENDER</b>				
Male	278	41.0	41.0	41.0
Female	400	59.0	59.0	59.0
Total	678	100.0	100.0	100.0
<b>AGE</b>				
up to 30	271	40.0	40.7	40.7
31-40	153	22.6	23.0	63.7
41-50	104	15.3	15.6	79.3
51-60	50	7.4	7.5	86.8
61-70	74	10.9	11.1	97.9
71 and over	14	2.1	2.1	100.0
Total	666	98.2	100.0	



Modalities	Frequency	Percent	Valid Percent	Cumulative Percent
Missing	12	1.8		
Total	678	100.0		
<b>EDUCATION</b>				
High school	111	16.4	16.5	16.5
Applied school	182	26.8	27.0	43.5
Basic studies	233	34.4	34.6	78.0
Master	148	21.8	22.0	100.0
Total	674	99.4	100.0	
Missing	4	.6		
Total	678	100.0		

Source: Field Survey –SPSS processing

In terms of the educational structure, results presented in table 1 indicate that the largest number of respondents have basic studies (34.6%), followed by respondents from applied school (27.0%), and respondents who have a master's degree comprise 22.0% of the total number of respondents, while 16.5 % of respondents have a high school degree. Of 678 questionnaires, in 4 of them, there were no data on the level of education. Maybe it is because they were not offered elementary or

no school at all, as an answer. But the majority have one of the offered levels of education.

Of all bank clients interviewed, as presented in table 2 above, 81% are using some social network and 19% are not. It is very important information because most bank clients are users of some social network and they can be a good target group for digital marketing and be part of the digital sales network of banks.

**Table 2.** Descriptive statistics for social network usage

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	544	80.2	80.7	80.7
No	130	19.2	19.3	100.0
Total	674	99.4	100.0	
Missing	4	.6		
Total	678	100.0		

Source: Field Survey –SPSS processing

If we go deeper into the structure of the bank clients that are using a social network or not, we can sort them according to their age and their education.

## 4.2 Results of multivariate analysis of variance

Regarding the age of respondents, we can divide them into 5 groups: up to 30; 31 – 40; 41-50; 51-60; 71 and over. According to the

research, the number of bank clients using the internet is inversely proportional to their age. Clients from the first and second groups

(up to 40) are more using social networks than clients from the third and fourth groups (41-60) and so on.

**Table 3.** ANOVA of difference between age groups

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	51.682	5	10.336	133.073	.000
Within Groups	50.954	656	.078		
Total	102.636	661			

**Source:** Field Survey –SPSS processing

Using ANOVA analysis, the results show a significant difference ( $p, 0.05$ ) between age groups regarding the use of digital services/ social networks and bank digital services (see table 3)

In order to understand among which categories there are significant differences

we have applied Multiple Comparisons (Tukey HSD). Based on these results, as presented in table 4, it is evident that among many categories there is a statistically significant difference ( $p < 0.005$ ) in the use of social networks.

**Table 4.** Multiple Comparisons (Tukey HSD) between age groups

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
up to 30	31-40	.00000	.02842	1.000	-.0812	.0812
	41-50	-.39423*	.03215	.000	-.4861	-.3023
	51-60	-.34000*	.04290	.000	-.4626	-.2174
	61-70	-.78378*	.03656	.000	-.8883	-.6793
	71 and over	-.78571*	.07639	.000	-1.0040	-.5674
31-40	41-50	-.39423*	.03561	.000	-.4960	-.2924
	51-60	-.34000*	.04555	.000	-.4702	-.2098
	61-70	-.78378*	.03964	.000	-.8971	-.6705
	71 and over	-.78571*	.07791	.000	-1.0084	-.5630
41-50	51-60	.05423	.04796	.869	-.0829	.1913
	61-70	-.38955*	.04239	.000	-.5107	-.2684
	71 and over	-.39148*	.07934	.000	-.6183	-.1647
51-60	61-70	-.44378*	.05102	.000	-.5896	-.2980
	71 and over	-.44571*	.08427	.000	-.6866	-.2049
61-70	71 and over	-.00193	.08123	1.000	-.2341	.2302

\*. The mean difference is significant at the 0.05 level.

**Source:** Field Survey –SPSS processing

The results in table 4 show that there is no statistically significant difference ( $p=1>0.05$ ) between clients up to 30 years of age and clients aged between 31 and 40 years. There is also no statistically significant difference in the use of social networks between clients in the age category between 41-50 and 51-60 years ( $p=0.869 > 0.05$ ), as well as the

category of clients between 61-70 years and 71 and older ( $p=1 > 0.05$ ).

When talking about the level of education and the usage of social networks, using ANOVA analysis, the results show a statistically significant difference ( $p<0.005$ ) between education groups regarding the use of digital services/social networks and bank digital services (see table 5)

**Table 5.** ANOVA of difference between education groups

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	25.789	3	8.596	72.781	.000
Within Groups	79.136	670	.118		
Total	104.926	673			

Source: Field Survey –SPSS processing

In the detailed analysis through Multiple Comparisons (Tukey HSD), presented in table 6, it is shown that there is no statistically significant difference ( $p=0.484 > 0.05$ ) in the use of social networks between clients who

have Basic studies and Master's. Among all other age categories, there is a statistically significant difference ( $p<0.005$ ) in whether they use social networks or not.

**Table 6.** Multiple Comparisons (Tukey HSD) between education groups

(I) 3 Educ.	(J) 3 Educ.	Mean Diff. (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
High school	Applied school	-.19874*	.04139	.000	-.3053	-.0921
	Basic studies	.22778*	.03964	.000	.1257	.3299
	Master	.27928*	.04315	.000	.1681	.3904
Applied school	Basic studies	.42652*	.03400	.000	.3390	.5141
	Master	.47802*	.03804	.000	.3801	.5760
Basic studies	Master	.05150	.03612	.484	-.0415	.1445

\*. The mean difference is significant at the 0.05 level.

Source: Field Survey –SPSS processing

Most respondents that are using social networks as a level of education have applied studies. After that, in the second place are respondents with high school, and in the

third one respondents with basic and master studies.

The explanation of such a result is that people with lower education use social networks more than people of higher education

is maybe connected with the previous observation above. Younger people are using social networks more than older ones, so if we have that in mind it is obvious that someone at the age of 20 or 21 does not have basic or master's studies finished, but he can have a high school or applied school. Based on this we can conclude that the usage of social networks is inversely proportional to the age of the respondents (younger respondents are using social networks more than older), and it is inversely proportional to their education

also (higher educated respondents are using social networks less than lower educated respondents).

In addition, when the question is how many users of social networks are using e-banking services, based on the Chi Square test we came to the answer that the majority are using both social networks and e-banking services. As shown in Table 7, there is a strong relationship between ( $p < 0.05$ ) the use of social networks and e-banking.

**Table 7.** Chi Square test

		Use e-banking by mobile phone				Total
		Do not use (No so often - rarely)	Once a week	Multiple times a week	Every day	
Are you a user of social networks?	Yes	82	57	50	352	541
	No	118	0	0	0	118
Total		200	57	50	352	659
Pearson Chi-Square		Value	df	Asymp. Sig. (2-sided)		
		329.878	3	.000		

**Source:** Field Survey –SPSS processing

In between the level of education and the frequency of using e-banking via mobile phone, there is a high degree of direct agreement (with increasing level of education). Educated respondents are more frequently using e-banking by mobile phone. When it comes to the frequency of using e-banking via laptop, we find that there is a medium-strong direct correlation between this phenomenon and education. The frequency of using e-banking is the highest via mobile phone by clients with Basic studies as well as Master's.

#### **4.3 Analysis of the purpose of using e-banking services and its correlation with age and education**

Based on general information about the influence of age and education on using

social networks and e-banking services and the connection between using these two, it is important to get deeper into the purpose of using e-banking services. We divide e-bank services as follows: Paying bills, Account balance overview, Transfer of money from account to account, Applying for a loan, Online shopping, and Something else. The question was how often you use each e-bank service (do not use, very few, once a week, multiple times a week). A summary of the research results for this question is presented in table 8.

**Table 8.** Purpose of e-banking services using (%)

	Paying bills	Account balance overview	Transfer of money from account o account	Applying for a loan	Online shopping	Something else
Do not use	23	23	38	83	23	44.7
Very few	55	11	42	6	9	7.3
Once a week	11	38	5	0	51	0.0
Multiple times a week	0	17	4	0	0	0.0
Every Day	0	0	0	0	6	0.0
No answer	11	11	11	11	11	11
Total	100.0	100.0	100.0	100	100.0	100.0

**Source:** Field Survey –SPSS processing

Of all respondents, when paying bills is the purpose of usage of e-banking services, the majority is using this service sometimes a month (55,5%). This is logical because the bills for utilities, electricity, telephone, etc. in Serbia are delivered once a month, so people are using e-banking to pay them once or twice a month. It can be concluded that Paying bills is often used as an e-banking service.

Paying bills is another offered option for e-banking services. This service is used more than a few times a month. Most respondents answered that they use this e-banking service once a week. But when we are talking about the usefulness of this service, it is normal for someone to check its account once a week. We can conclude that this service is being used on a regular basis also as the previous. But it is used by less percentage of bank users than the previous ones.

Money transfer from account to account is using less than the previous two e-banking services. Most respondents are using this service maybe once or two times a month (42%). This can be explained by the fact that people maybe do not have more accounts in their name or do not have the need to transfer

money from one bank account to another or just they do not want to have additional costs for this service.

Obviously, according to our research, this e-banking service is used most often by more than half-interviewed bank clients. So, *online shopping is the most used e-banking service which was the topic of our research of bank clients*. This may be because online shopping, today, in the period of Covid19 has a significant growth compared to classic forms of trade. So, the banks play a significant role in this kind of trade. Other e-banking services besides online shopping are not used as much by the clients. It is also interesting to say that from 603 valid answers, 564 (94%) do not use e-banking services in order to apply for a loan, it is used by around 6%. All other services are used by more than 50% of respondents more than at least once a month.

At the end of this part of the discussion, if we must point out the most used e-banking service, it is an online shopping (when we are counting the frequency of usage also). Paying bills and account balance overview are used proportionally to the needs of bank users too. But for sure online shopping is used almost

every each day by more than half of the bank clients.

If we are going into further analysis and involve age as a factor in using e-banking services, regarding the correlation analysis presented in table 9, we can conclude that there is a strong inverse relationship ( $p < 0.05$ ) between the age of clients and the frequency of “Paying bills”, “Account balance overview”, “Online shopping”; and a low but significant inverse correlation with the statement “Something else”. An inverse relationship means that as age increases, the frequency of using bank services via e-banking decreases.

There is no significant correlation ( $p = 0.742 > 0.05$ ) between the age of the clients and the frequency of “Applying for

a loan” and hence, the younger population is using more e-banking services such as paying bills, account balance overview and online shopping, and the older population is using more e-banking service – money transfer from account to account. This can be also explained by the presumption that older people have more bank accounts, more loans, and a more complicated financial situation than younger, and that is why they must do some kind of “exhibitions “with their money.” Also, the younger population is more relaxed with new means of shopping, and paying and have more trust in such technology the older and that is why the first mentioned services are used more by the younger population.

**Table 9.** Correlations

		Paying bills	Account balance overview	Transfer of money from account o account	Applying for a loan	Online shopping	Something else
Age	Pearson Correlation	-.694**	-.645**	-.427**	-.014	-.891**	-.154**
	Sig. (2-tailed)	.000	.000	.000	.742	.000	.003
	N	591	591	591	591	591	378
Education	Pearson Correlation	.525**	.600**	.448**	.081*	.560**	.398**
	Sig. (2-tailed)	.000	.000	.000	.046	.000	.000
	N	603	603	603	603	603	384

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Source:** Field Survey –SPSS processing

The results in table 9 also show that there is a high degree of positive linkage (which are statistically significant ( $p < 0.05$ )) between the level of education and the frequency of “Bill payments”, as well as between education and “Account balance overview” and “Online shopping”. This means that clients with a higher level of education use these types of e-banking more often. There is a

medium positive link between education and the “Transfer of money from the account”. When we talk about the relationship between education and “Applying for a loan”, the situation is the same as that for age, and there is a low but statistically significant positive correlation ( $p = 0.046 < 0.05$ ).

Also, an interesting thing is an answer to the question of cost comparisons. Results in



table 10 show that most bank clients do not compare the costs of mobile banking. Only around 27% of the respondents answered positively this question. For the younger

population, the costs of e-banking do not matter, and the older are comparing e-banking costs services. Also, higher education brings higher concern for e-banking costs.

**Table 10.** Comparing costs

		Do you compare costs when it comes to mobile banking with banks?		Total
		Yes	No	
Age	up to 30	21	240	261
	31-40	63	83	146
	41-50	33	0	33
Total		117	323	440
Education	High school	0	37	37
	Applied school	0	51	51
	Basic studies	108	105	213
	Master	15	133	148
Total		123	326	449

**Source:** Field Survey –SPSS processing

Analyzing the answers depending on age and level of education, we see that from the population of up to 30, only 8% of the respondents are comparing e-banking costs, and from the population from 31-40, the percentage is 63%. All respondents from the population 41-50 are comparing e-banking costs. On the other hand, regarding the level of education, respondents with high school and applied school do not compare the costs, while those with basic studies and master's do.

At the end of this research, we did include in the analysis the satisfaction of bank's clients with the information provided by

banks in the Republic of Serbia, through their websites. Based on the descriptive analysis of this question presented in Graphic 1 we see that the majority of respondents (59%) are satisfied with bank's website, 6% are not satisfied and 24% did not answer this question, while 11% did not have an opinion about it. This is an important signal that there is generally customer satisfaction but there is still much room for improvement, additions, and updates regarding the information provided through websites and not only. Banks need to review and adopt advanced digital marketing strategies.



**Graph 1.** Level of satisfaction with bank's website.

#### 4.4 Results of hypothesis testing

Based on the analysis of the results using statistical methods we have reached the conclusions regarding the testing of the hypotheses raised for this research which are as follows:

H1: There is a positive correlation between the use of digital tools and the level of education of customers – except for the level of significance  $\alpha=0.05$ , and we can conclude that we have sufficient evidence to accept the alternative hypothesis that in regard to the client's level of education and the use of digital tools there is a statistically important positive correlation. So as a result of this empirical confirmation we can conclude that once the level of education is higher it means that the use of digital tools increases.

The ANOVA method and Tukey test were used to see if there is a difference between the groups and to determine between which groups this difference exists. As a result, for the level of significance  $\alpha = 0.05$  we conclude that there is sufficient evidence to accept there are statistically significant differences between the level of education of clients. The results suggest that clients with a higher level of education use digital tools more often, while with a decrease in the level of education, the

frequency of access to digital tools is lower. Based on the results of the Tukey test, the only exception is the case between clients who have Basic studies and Master's, that there is no statistically significant difference in the use of social networks.

H2: There is a negative correlation between the use of digital tools and the age of customers - for significance level  $\alpha = 0.05$  we can conclude that we have sufficient evidence to accept the alternative hypothesis that there is a statistically significant negative correlation between the age of customers and the use of digital tools. So as a result of this empiric confirmation we conclude that with the increase of age the use of digital tools decreases and vice versa. The younger the age the higher their use of them. This means that younger ages use more digital tools than older ones.

While by using the ANOVA method and Tukey test we came to the results of whether there is a statistically significant difference between age groups and between which groups this difference exists. As the results for significance level  $\alpha = 0.05$  we conclude that we have sufficient evidence to acknowledge that there are differences between client age groups statistically significant. The results

suggest that there is no statistically significant difference between clients of up to 30 years of age and clients aged between 31 and 40 years; clients in the age category between 41-50 and 51-60 years, as well as the category of clients between 61-70 years and 71 and older ( $p = 1$  &  $t; 0.05$ ).

The result from Tukey test is that the younger population (up to 40) is using social networks and digital bank channels more than the older population. Between older groups, the level of usage of digital tools is decreasing as the age category increases.

H3: Age and level of education have a correlation linkage with purposes of using bank services - for a level of significance  $\alpha = 0.05$  we can conclude that we have sufficient evidence to accept the alternative hypothesis that age and level of education have a statistically significant correlation when it comes to the purpose of using bank services. The results show that out of six goals presented, terms of age only do not have statistically significant links whereas in terms of the level of education all goals have statistically significant links (see table 9). The correlative relationship for age is negative and the level of education is positive.

## 5. Conclusions

The results of this research show that the application of digital marketing in the banking sector of the Republic of Serbia is a potential opportunity that will enable banks to use digital tools for increasing their business activities. Based on these results, we can conclude that the focus of banks' orientation through digital marketing should be mainly directed toward young people. Younger age groups use social media more often and the results also showed a statistically significant relationship, based on the Chi Square test, that there is a strong

relationship between using social networks and e-banking.

Even in terms of the level of education, from the research results, we do conclude that differentiation should be done between groups given that the differences between them are statistically significant. It is also an important finding that bank clients do not take much into account the cost-benefit when using digital tools. From this, we come to the conclusion that for someone the loss of time is more important. The purposes of using e-banking are different but there is a dominant scale in terms of the use of online shopping and Account balance overview followed by paying bills.

The results imply a proactive approach of the banking sector both in terms of market segmentation and the use of certain potentials for the development of their products using digital tools. Also, the results of bank clients' satisfaction with the information that banks forward through their websites, imply a greater commitment of banks to using their websites to convey the necessary information to customers. This opportunity should be used by banks by reviewing and adopting advanced digital marketing strategies to improve the satisfaction of bank users.

Implications for further research are related to the management of the banking sector where the focus will be on bank managers to understand their attitudes and beliefs in relation to using the opportunities offered by digital marketing in their businesses.

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