

## Examining user attitudes towards electronic and mobile banking applications in Serbia

### Ispitivanje stavova korisnika aplikacija elektronskog i mobilnog bankarstva u Srbiji

Danilo Obradović<sup>a\*</sup>, Vladimir Mladenović<sup>a</sup>, Srećko Stamenković<sup>a</sup>

<sup>a</sup> Toplica Academy of Applied Studies, Department of Business Studies Blace, Serbia

#### Article info

##### Review paper/ Pregledni rad

Received/ Rukopis je primljen:

30 January, 2025

Revised/ Korigovan:

3 June, 2025

Accepted/ Prihvaćen:

18 August, 2025

Published online: 29 November, 2025

DOI:

<https://doi.org/10.71159/bizinfo2500240>

UDC/ UDK:

336.71:077(497.11)

#### Abstract

*The development of electronic and mobile banking has significantly improved the way users conduct financial transactions, making these services an essential part of modern banking. The aim of this paper is to examine the user experience of e-banking and m-banking application users in Serbia, with a focus on perceived usefulness, ease of use, security, and overall satisfaction. The paper also provides an overview of the functionalities offered by selected banks' electronic and mobile applications in order to illustrate the level of development of digital banking services. The empirical part of the research is based on an anonymous survey and the application of descriptive methods. The results show that most respondents use these applications daily and consider them useful, easy to use, and important for saving time and money. Perceptions of security are generally positive, although some users still express concerns about the possibility of payment errors. The findings indicate that digital banking services are widely accepted and that user experience plays a key role in their adoption. Further improvement of digital skills and strengthening user trust may contribute to even broader usage of these services.*  
**Keywords:** e-banking, m-banking, digital banking, user experience, application usability

#### Sažetak

*Razvoj elektronskog i mobilnog bankarstva značajno je unapredio način na koji korisnici obavljaju finansijske transakcije, čineći ove usluge ključnim delom savremenog bankarskog poslovanja. Cilj ovog rada je da ispita korisničko iskustvo korisnika e-banking i m-banking aplikacija u Srbiji, sa fokusom na percepciju njihove korisnosti, jednostavnosti upotrebe, bezbednosti i opšteg zadovoljstva. U radu je takođe predstavljen pregled funkcionalnosti elektronskih i mobilnih aplikacija odabranih banaka u Srbiji, kako bi se ukazalo na stepen razvijenosti digitalnih usluga. Empirijski deo istraživanja zasniva se na anonimnoj anketi i primeni deskriptivnih metoda. Rezultati pokazuju da većina ispitanika koristi ove aplikacije svakodnevno i da ih smatra korisnim, jednostavnim za upotrebu i značajnim za uštedu vremena i novca. Percepcija bezbednosti je uglavnom pozitivna, ali deo korisnika i dalje izražava rezerve u pogledu mogućnosti grešaka prilikom plaćanja. Nalazi ukazuju da su digitalne bankarske usluge široko prihvaćene i da korisničko iskustvo ima važnu ulogu u njihovoj upotrebi. Dodatno unapređenje digitalnih veština i jačanje poverenja korisnika mogu doprineti još većoj upotrebi ovih usluga.*

**Ključne reči:** elektronsko bankarstvo, mobilno bankarstvo, digitalno bankarstvo, korisničko iskustvo, upotrebljivost aplikacija


## 1. Introduction

The modern pace of life demands an increasingly efficient use of time as an irreplaceable resource. The development of technology has transformed the way various aspects of life are conducted. It had a significant impact on commerce, and therefore on financial management as well. A major progress in the banking sector occurred with the emergence of electronic banking, also known as e-

banking or online banking. The way of communication between banks and clients is changing, with efforts focused on strengthening the sense of security and trust in the technical innovations that are being developed. Innovations initially focused on the development of adequate communication and information channels, but the development of electronic banking has, in many ways, also altered the approach of banks to their clients and vice versa.

\*Corresponding author

E-mail address: [danilo\\_obrad@vpskp.edu.rs](mailto:danilo_obrad@vpskp.edu.rs)

This is an open access paper under the license 

The industry sector that has consistently remained ahead of the competition in terms of digitalization is financial services (Seetharaman, 2020). Through digital transformation, banks have provided their customers with a wide range of services that can meet the changing needs and preferences of clients. It can be said that, in a way, they facilitate the transition from traditional to digital banking. Serbia has not lagged behind in this digitalization. Electronic banking was first introduced in Serbia by Komercijalna Banka back in 2001, and afterward, other banks gradually adopted this service, which confirms the fact that in addition to competing in the market, banks had to simultaneously focus on technological development and the digital literacy of their customers and employees. According to Gašić et al. (2013), the significance and early forms of electronic banking in Serbia can be observed through the most common models of e-banking services implemented in practice

In recent times, mobile banking, as a form of electronic banking, has taken a primary position, thanks to the exponential development of smartphones, which are expected to completely replace computers at some point. Advanced technologies that are an integral part of modern mobile phones also contribute to the development of new services in mobile banking. Therefore, a mobile banking application installed on a phone serves to access an account, but also has many other roles, for example, it can function as a token, generating an access code for electronic banking instead of the former hardware tokens. Despite linking a token to a mobile payment application, hardware tokens have not completely lost their role, but their significance has diminished compared to the past, when they were the only option for online connection between the account holders and banks.

The following services within mobile banking are available at all banks in Serbia:

- Insight into user accounts and statements. A review of user accounts is available to the account user 24 hours a day.
- All types of payments in the country.
- Insight into spending made with the client's debit or credit cards, including pending transactions, transactions that have been made but have not yet been confirmed by the seller.
- Changing transaction limits, i.e., increasing or decreasing them.
- Changing daily limits for making transactions with debit cards.
- Blocking and unblocking of debit and credit cards.
- Foreign exchange operations.
- Opening additional accounts within existing packages, sub-accounts for special needs and purposes, such as savings accounts.
- Performing banking operations such as term deposits, applying for quick cash loans, activating the allowed deficit, submitting loan requests.
- Possibility of creating standing orders for paying user obligations.

- M-cash option that allows cash withdrawals at an ATM, changing the client's debit card.
- Purchasing travel insurance or household insurance.
- Trading of securities.
- Trading of investment units.
- The applications themselves also contain important information for users in terms of branch locations, user instructions, messages and notifications from the banks.
- Paying bills with the help of IPS (Instant payment System) without using cards but only the application.
- With the help of artificial intelligence, support and information is enabled by a virtual assistant chatbot, a robot that answers questions asked by users.

Many authors have tried to examine variables or factors that influence the acceptance and use of electronic and mobile banking applications (Malaquias et al, 2019; Chaouali et al, 2019; Singh et al, 2018). However, when it comes to the user experience, previous research studies have not adequately explored this concept (Shahid et al, 2022). This fact is the real motive for this paper, which deals with examining the user experience of users of e-banking and m-banking applications in Serbia. In the existing scientific literature, the evaluation of user experience is widely applied to explain user behavior towards a product or service (Sharma et al, 2021). In order to evaluate the usability of an application, in addition to heuristic evaluation, the evaluation of user experience plays a very important role (Stamenkovic et al, 2020). Before adopting any new technology or improving an existing one, the experiences of (real) users are extremely important (Augusto et al, 2018).

The remainder of the paper is structured as follows. It begins with an examination of e-banking and m-banking applications of the selected banks in Serbia, through a comparative analysis of available digital services. Next, the methodology applied in this research is established. After that, the results are presented alongside data analysis and discussion. Finally, the conclusion is presented, along with suggestions for future research.

## 2. Literature review

The majority of studies on mobile banking primarily focus on understanding the factors that influence consumers' intention to adopt or continue using the service. These studies employ technology acceptance models to examine the motivators and inhibitors of mobile banking adoption and continued use, including perceived usefulness, ease of use, subjective norms, expected performance, expected effort, and perceived financial costs (Priya et al., 2018; Srivastava & Vishnani, 2021; Kumar et al., 2023; Metlo et al., 2021).

The authors of the study (Monica et al., 2019) investigated the usability and cognitive understanding of banking service websites in Romania. A two-step research design was developed to study consumer attention and memory during and after reviewing two web applications of Romanian banking services. The results showed that the

way information is structured and presented on web applications influences their usability and cognitive understanding.

Shahid et al. (2022) examined the factors influencing user experience outcomes with mobile banking applications. To identify the relationship between user experience and other structures, they collected data using a structured questionnaire through an online survey. The sample consisted of 473 respondents. The findings revealed that, in addition to app features, convenience, trust, and social influence play a significant role in enhancing the user experience of mobile banking applications. It was also determined that there is no connection between customer support and user experience.

In the study by Apaua & Lallie (2022), the authors argue that the usability and user satisfaction of mobile banking largely depend on the security of the application, given the increasing trend of cybersecurity threats, cyber-attacks, and data misuse. Considering the growing vulnerabilities in the cybersecurity of m-banking applications, this study was conducted to empirically measure the security of m-banking applications as perceived by users. A total of 315 participant responses were analyzed. The results showed that institutional trust and trust in technology were confirmed as factors influencing users' intention to adopt and use m-banking applications. The effect of trust in technology was correlated with users' age, education, and experience. The guarantee of enhanced security, advanced privacy mechanisms, and trust should be considered the most important aspects of future strategies aimed at promoting the adoption and use of m-banking applications.

Orehovacki et al. (2023) examined the perceived quality of the most commonly used mobile banking applications in Croatia. Regarding this, the study had three main objectives. The first objective was to identify the extent to which pragmatic and hedonic quality dimensions contribute to customer satisfaction and their behavioral intentions regarding the continued use of mobile banking applications. The second objective was to determine whether there are significant differences in perceived quality between users of different mobile banking applications, as well as among users belonging to different age groups. The final objective was to identify the advantages and disadvantages of the evaluated mobile banking applications. To achieve this, an empirical study was conducted, during which data was collected through an online questionnaire. The sample consisted of 130 participants who were representative and regular users of mobile banking applications. The most frequently reported advantages of mobile banking applications were related to their efficiency and usefulness, while the main drawback was the lack of features dealing with the personalization of the services offered.

The study by Zhu and Wang (2022) examines user motivation for adopting and using mobile banking. The authors argue that users' trust in mobile banking services, enjoyment, system usefulness, and other factors should not be treated as the same concept. This study was

conducted in China, focusing on the top banks that offer mobile banking services. The questionnaire was distributed to both customers and bank staff, and within six months, 293 questionnaires were completed. Participants in this study did not express concerns about fraud risks, system reliability, or perceived privacy while building and expanding their trust in their banks and mobile services. The study concluded that, due to today's technology-driven lifestyle, users are more inclined to adopt new technologies that are compatible with their mobile devices.

Alhejji et al. (2022) conducted an analysis of mobile banking applications in Saudi Arabia and identified various usability issues across these apps. The study evaluated and compared the usability of all Saudi mobile banking applications available for iOS and Android systems. Usability, as defined by ISO 9241, was measured using three criteria—effectiveness, efficiency, and satisfaction. Additionally, the research identified and discussed the most critical weaknesses of Saudi banking apps, providing developers with insights into improving user satisfaction. The results revealed that the most significant issues were related to the user interface and functionality of the applications, particularly those that were frequently receiving updates. Furthermore, the lack of customer support weakened the interaction between banks and clients, leading to increased customer dissatisfaction.

Sharma (2024) conducted a study on how mobile banking app experiences differ across generations. He divided users into two groups: digital natives (users born after the digital age) and digital immigrants (users born before the digital age). The study asserts that four components of the mobile banking app experience—pragmatic, ease of use, emotional, and sensorial—affect the intention of continued use both directly and indirectly through satisfaction. The proposed relationships were analyzed using a sample of 215 digital natives (DN) and 203 digital immigrants (DI). DN users significantly value an enjoyable application experience and are less focused on ease of use. In contrast, DI users are more concerned with ease of use and less with enjoyment. Therefore, while both groups share some similarities, they have different expectations of the app experience, revealing distinctive patterns of satisfaction and continued usage intentions.

Identifying the factors that influence users' attitudes toward usability and satisfaction with the application is a fundamental process that can be used to modify the characteristics of the application in order to make it more attractive (Kuisma et al., 2007; Albashrawi et al., 2019). Usability is associated with the efficiency and effectiveness of the application and is typically tested through heuristic evaluation (Malik et al., 2021). As the aim of this paper is to identify the factors that influence the user experience and satisfaction, a research methodology similar to those applied in (Shahid et al., 2022; Zhou et al., 2021; Li et al., 2021) was used.

Given the growing importance of digital channels in modern banking, particularly in the context of user

experience, there is a clear need to explore how customers perceive the usability and quality of the applications they rely on. The adoption of new technology largely depends on whether users find a service useful, easy to navigate, and secure, as well as on the extent to which it genuinely simplifies their financial activities. For this reason, it is essential to examine how users evaluate the functionalities of electronic and mobile banking and which aspects they view as advantages or limitations.

Building on these considerations, the primary aim of this study is to investigate the experience of users of e-banking and m-banking applications in Serbia, with special attention to perceived usefulness, ease of use, time and cost savings, and the sense of security and reliability. Additionally, the study seeks to determine whether these applications are seen as essential in everyday life and whether their use differs across age groups. As digital banking services have become a standard in the industry, it is important to understand which groups consider these applications indispensable and which adopt them mainly due to broader technological and institutional changes. To

achieve this aim, the study relies on an anonymous survey that gathers users' opinions, providing a detailed insight into their experiences and attitudes toward digital banking services.

### 3. A comparison of e-banking and m-banking services offered by banks in Serbia

Mobile and electronic banking represent one of the most promising innovations in recent times, which can be proven to have practical value for both banks and users (Baabdullah et al., 2019). There are 20 banks operating in Serbia (National Bank of Serbia, 2024). For the purposes of this paper, the functions of electronic and mobile banking of selected commercial banks will be analyzed, specifically the leading banks in Serbia: Banca Intesa, OTP Bank, UniCredit Bank and Raiffeisen Bank. Table 1 lists all the functionalities within the electronic banking applications of the selected banks, while Table 2 shows all the functionalities of the mobile applications of specific banks.

**Table 1.** An overview of electronic banking services offered by selected banks in Serbia

Service	Bank			
	Banca Intesa	OTP Bank	UniCredit Bank	Raiffeisen Bank
Access to proprietary accounts	+	+	+	+
Payments in the domestic payment system	+	+	+	+
Foreign currency payments abroad	-	+	+	+
Current account statements	+	+	+	+
The ability to issue confirmations of completed payments	+	+	+	+
Setting up and terminating standing orders	+	+	+	-
The option to sort completed transactions by the payment user	+	+	+	+
Choosing a communication channel with the bank	+	+	+	+
The ability to apply for and approve credit products	+	+	-	+
Access to loan and credit obligations (installment amounts, remaining debt)	+	+	+	+
ATM location schedules	+	+	+	+
Access to savings accounts	+	+	+	+
Overview of user cards (debit and credit)	+	+	+	+
Currency exchange operations (buying and selling foreign currency)	+	+	+	+
Internal transfers between user accounts	+	+	+	+
The ability to purchase travel insurance	+	+	-	+
The ability to purchase investment units and view shares in investment funds	+	-	-	+
Notifications about bank partners offering discounts to service package users	-	+	-	-
The ability to trade securities	-	-	-	+

Source: Authors

**Table 2.** An overview of mobile banking services offered by selected banks in Serbia

Service	Bank			
	Banca Intesa	OTP Bank	UniCredit Bank	Raiffeisen Bank
Access to proprietary accounts	+	+	+	+
Payments in the domestic payment system	+	+	+	+
Foreign currency payments abroad	-	-	-	+
Current account statements	+	-	-	+
The ability to issue confirmations of completed payments	+	+	+	+
Setting up and terminating standing orders	+	+	+	-
The option to sort completed transactions by the payment user	+	+	-	+
Choosing a communication channel with the bank	+	+	+	+
The ability to apply for and approve credit products	+	+	-	+
Access to loan and credit obligations (installment amounts, remaining debt)	+	+	+	+
ATM location schedules	+	+	+	+
Access to savings accounts	+	+	+	+
Overview of user cards (debit and credit)	+	+	+	+
Currency exchange operations (buying and selling foreign currency)	+	+	+	+
Internal transfers between user accounts	+	+	+	+

Table 2. Continued

Service	Bank			
	Banca Intesa	OTP Bank	UniCredit Bank	Raiffeisen Bank
The ability to purchase travel insurance	+	+	+	+
The ability to purchase investment units and view shares in investment funds	-	-	-	-
Notifications about bank partners offering discounts to service package users	-	+	-	-
The ability to trade securities	-	-	-	-
M-cash withdrawal at ATMs via the mobile application	+	-	+	+
IPS scan/pay options	+	+	+	+
"Transfer" option for sending money based on a phone number from the contact list	-	+	+	-
The ability to create a virtual card for online payments	+	-	-	-

Source: Authors

If we examine the functionalities of the applications offered by the four mentioned banks within mobile and electronic banking, we can see that the differences are minimal, as well as that the banks tend to redirect all their services to digital channels and provide users with online access.

The nuances in the functionality of the applications are reflected in the method of transaction verification, where Banca Intesa has enabled its users to pay up to 10 payment orders in the domestic payment system with a single verification, while with other banks it is necessary to confirm each transaction using the user's PIN.

All banks offer the option to purchase insurance, not only for credit products, but also for travel insurance for the entire family, as well as life and property insurance. The synergy between banks and insurance companies emerges to achieve profit for both financial institutions. Although insurance is not a traditional banking activity, it appears within the offerings of banks as dominant participants in the financial market and is included in electronic channel offerings, because it has been recognized as a necessity for users and of course as an opportunity for profit for both financial entities.

Banca Intesa and Raiffeisen Bank have enabled their users to trade investment units, because they are also owners of these units. In contrast, UniCredit Bank and OTP Bank do not offer the option of trading investment units on their electronic and mobile banking platforms. Raiffeisen Bank's applications stand out as the only ones that offer the possibility of online securities trading, a feature that other banks cannot boast of. What sets Banca Intesa's applications apart is the ability to apply for all credit products and monitor the approval process. At OTP Bank, it is possible to submit an online application for credit products, but it is not possible to track the approval process. In this regard, Raiffeisen Bank may have achieved the best technical support for clients, as it uses artificial intelligence to process the client's statistical data autonomously, almost independently offering and selling the aforementioned credit services. Meanwhile, the option for online credit products at UniCredit Bank is still under development.

From all of the above, it can be concluded that Banca Intesa and Raiffeisen Bank have the most developed applications with the highest number of features available.

By redirecting users to digital channels, banks reduce the workload on employees in branches, allowing them to deal with new clients and the acquisition of new customers, while existing users are fully enabled to fulfill their needs through electronic and mobile banking. The fact is that electronic and mobile banking services are present in the offers of all banks. They are not an innovation anymore, but a service without which no bank can survive in the market. Initially, the necessity of using online payments was based on the needs of legal entities; over time, it became a necessary service in the offerings of all banks for individual clients as well. Although at the very beginning it may have faced some resistance, especially from individual users, the use of these services experienced its expansion during the Covid-19 pandemic in Serbia.

As can be seen from the previous tabular presentations and the accompanying commentary, the differences between mobile and electronic banking are minimal, as well as the functionalities of the applications offered by all banks. It is a fact that banks are continuously striving to develop their applications to adapt to the needs of their users, thereby achieving a competitive advantage. The increase in the number of users is reflected in the advantages enabled by the aforementioned applications and all the benefits they bring. Furthermore, the push for digitization, not only from banks but also from government institutions, somehow forces even those who were not users to accept and use them, especially in situations like during the pandemic. In such moments, the necessity of such processes becomes evident, as well as the necessity of electronic communication channels between institutions and users.

#### 4. Methodology and research techniques

The measurement instrument used in this research was an anonymous questionnaire designed for users of mobile and electronic banking, based on their personal experience. The research relied on descriptive methods in order to present and interpret users' attitudes toward electronic and mobile banking. The results were obtained by collecting respondents' opinions regarding the use, usefulness, safety and overall satisfaction with electronic and mobile banking applications.

In order to examine the extent to which the use of mobile and electronic banking has become a necessity, a survey

was conducted on a sample of 60 individuals. The sample consisted of 27 men, 32 women, and one respondent who chose not to disclose gender. The anonymous questionnaire, based on a five-point Likert scale (1 – Strongly agree to 5 – Strongly disagree), was conducted in August 2024.

Before analyzing attitudes, it was essential to verify whether respondents were users of a current account. Out of 60 individuals, 55 (93.2%) confirmed that they had an account in a commercial bank, which also implies access to mobile or electronic banking services. Four respondents reported not having an account, and therefore do not use digital payment solutions, while one did not answer the question. The dominance of account holders indicates that the findings are relevant for evaluating perceptions of mobile and electronic banking among active users.

**4.1. Characteristics of the sample**

Age proved to be an important factor. One-third of respondents were between 37 and 46 years old, while 20%

belonged to the youngest group (18–26 years). Respondents aged 47–56 accounted for 18%, those aged 27–36 represented 16.7%, and only 10% were older than 57. Although younger users are often assumed to rely more on mobile banking services, the sample indicates that digital banking is widely adopted among middle-aged users as well. Regarding education, 3.3% completed primary school, 36.7% had secondary education, while 38.3% held college-level degrees. Academic education was reported by 22% of respondents. The distribution of educational levels suggests that digital banking is used across diverse user profiles, not exclusively among highly educated groups.

**5. Results and discussion**

The descriptive statistics (Table 3) provide an overview of attitudes toward electronic and mobile banking applications.

**Table 3. Descriptive Statistics**

Items	N	Min	Max	Mean	SD
I use mobile and electronic banking for managing my finances on a daily basis	59	1.00	5.00	3.7627	1.10390
I consider electronic and mobile banking easy to use	59	1.00	5.00	3.8305	1.13187
I consider electronic and mobile banking useful	59	1.00	5.00	3.8983	1.09379
Paying via the app saves time and money	59	1.00	5.00	4.0847	1.02197
I use electronic banking but I am not a supporter of it	59	1.00	5.00	2.7627	1.11941
I believe it is safe to make payments via electronic banking	59	1.00	5.00	3.5254	1.16495
I believe it is not possible to make an incorrect payment through electronic banking	59	1.00	5.00	2.7966	1.04683
I believe it is safer to pay in cash at bank counters	59	1.00	5.00	3.0847	1.19320
Applications for electronic and mobile banking are complicated and confusing for me	59	1.00	5.00	2.3220	1.19540
How satisfied are you in general with the use of electronic and mobile banking	59	1.00	5.00	3.8983	1.06180

Source: Authors

The highest mean value was recorded for the statement “Paying via the app saves time and money” (M = 4.08, SD = 1.02), indicating that respondents clearly recognize the efficiency benefits of digital transactions. More than 80% agreed or strongly agreed with this statement, confirming that time and cost savings represent the strongest motivator for adopting these services.

Statements referring to usefulness (M = 3.90) and ease of use (M = 3.83) also received relatively high average scores. Around 70% of respondents described digital banking as both useful and easy to navigate. These results reflect a generally positive user experience and align with global research emphasizing perceived usefulness and simplicity as key determinants of technology acceptance.

Daily use of electronic and mobile banking presented a somewhat lower, but still positive mean value (M = 3.76). More than two-thirds of respondents reported using digital services as part of everyday financial management. Considering that the largest age group consists of users aged 37 to 46, it may be concluded that mobile banking is no longer a service predominantly used by younger generations, but a routine tool for different age categories. When evaluating safety perceptions, respondents

expressed moderate confidence (M = 3.53). Over half agreed that electronic payments are safe, while one-quarter remained neutral.

However, the belief that incorrect payments cannot occur through electronic banking scored lower (M = 2.79). More than 40% disagreed with this statement, suggesting that users still perceive the possibility of error, despite high security standards.

The statement “I use electronic banking but I am not a supporter of it” received a low mean (M = 2.76). Although a portion of respondents use the applications unwillingly or with reservations, the majority disagreed, indicating that users generally have a positive orientation toward digital banking. Similarly, the belief that it is safer to pay in cash at the bank counter yielded a neutral-to-slightly-positive mean (M = 3.08). Opinions were clearly divided: while over 40% felt more comfortable with cash transactions, a similar proportion rejected this idea. This indicates that traditional habits still influence customer behavior, despite increased digitalization.

The lowest mean score (M = 2.32) was recorded for the statement “Applications for electronic and mobile

banking are complicated and confusing for me.” A significant majority disagreed or strongly disagreed with this statement. In other words, almost two-thirds of users do not experience difficulties in navigating digital banking platforms, reinforcing the earlier finding regarding ease of use.

Finally, general satisfaction with mobile and electronic banking scored high ( $M = 3.90$ ). Nearly three-quarters of respondents reported being satisfied or very satisfied with their overall experience, supporting the conclusion that digital banking services meet user expectations.

The research confirms that mobile and electronic banking have become an everyday tool for the majority of respondents. Time and cost efficiency stand out as the main advantages, followed by ease of use and usefulness is factors that are central to the adoption of any digital service. While respondents mostly perceive digital payments as safe, a portion of them continue to rely on traditional payment methods, either out of habit or due to concerns about potential errors. This highlights the importance of continuous user education, particularly regarding payment verification mechanisms and available security features. Satisfaction levels show that electronic and mobile banking are well accepted among users across different age and education groups. The fact that applications were not perceived as complicated suggests that banks have successfully simplified user interfaces and improved functionality over time. In summary, the results demonstrate that digital banking is widely adopted, practical, and generally well-received. However, further efforts in promoting digital literacy and enhancing user trust could contribute to even broader use and a stronger sense of security among customers.

## 6. Conclusion

Electronic banking is an essential component of modern life and business, playing a significant role in improving the process of banking services. In the context of Serbia, banks have adapted to the development of technology and the provision of services through electronic channels. The mere use of electronic banking promotes more efficient business operations and a more convenient way of life. The process of digitalization not only represents a necessity for modern individuals and businesses, but also an inevitability. An increasing number of users are registering for services that are now offered by all institutions. As can be seen in the results of the survey, this process greatly saves time, and primarily money. Large corporations and financial institutions, in order to reduce their own costs, are extensively introducing various platforms where artificial intelligence, as a more affordable option, takes the lead and gradually replaces human involvement. As a result, cheaper online services are offered, which are more attractive to users and lead to higher adoption rates.

Perhaps not so much out of personal desire, but rather out of what we can call existential reasons, electronic banking is becoming a necessity. Imposed by technological advancements and the increasingly fast-paced lifestyle, it

has taken the lead over services offered at payment institutions' branches. The initial apprehension is gradually being overcome, and younger generations are increasingly accepting digitalization as a normal and logical part of everyday life.

It should be kept in mind that there are still certain challenges, as older generations may not be used to modern technology and therefore do not fully recognize the necessity of contemporary payment processes, thus continuing to use traditional banking despite the higher costs it entails.

Computers are primarily used for business purposes, but according to all reports from the National Bank of Serbia (NBS), there has been an increase in the number of users of mobile banking services, while electronic banking has been in use for quite some time and no serious company can function without it. Electronic banking has emerged as a justified necessity in modern business operations, facilitating fast and efficient transactions and services. Banks in Serbia are following this trend and, accordingly, are improving their services through electronic channels. It is crucial to maintain a balance between technological advancements, the desires and needs of clients, legal regulations, and ensuring adequate security for all users of electronic payment services.

Feedback and customer comments on mobile banking applications belonging to selected banks in Serbia highlight certain issues and shortcomings in the provided banking services. This study aimed to evaluate and compare the factors influencing user attitudes toward mobile banking applications. The key factors affecting usability include satisfaction, effectiveness, efficiency, and simplicity.

In order to improve applications, it is essential to follow the conclusions drawn from research on user experiences. A limitation of this study is the small and non-representative sample, as well as the fact that only descriptive data were analyzed, which restricts the broader generalization of the findings. This work can provide a starting point for drawing general conclusions, but a much larger sample is needed for result generalization. The plan for future research includes evaluating the usability of electronic and mobile banking applications.

## References

- Albashrawi, M., & Motiwalla, L. (2019). Privacy and personalization in continued usage intention of mobile banking: An integrative perspective. *Information Systems Frontiers*, 21, 1031–1043. <https://doi.org/10.1007/s10796-017-9814-7>
- Alhejji, S., Albesher, A., Wahsheh, H., & Albarrak, A. (2022). Evaluating and comparing the usability of mobile banking applications in Saudi Arabia. *Information*, 13(12), 559. <https://doi.org/10.3390/info13120559>
- Apaua, R., & Lallie, H. S. (2022). Measuring user perceived security of mobile banking applications. *arXiv preprint*, arXiv:2201.03052. <https://doi.org/10.48550/arXiv.2201.03052>

- Augusto, M., & Torres, P. (2018). Effects of brand attitude and eWOM on consumers' willingness to pay in the banking industry: Mediating role of consumer-brand identification and brand equity. *Journal of Retailing and Consumer Services*, 42, 1–10. <https://doi.org/10.1016/j.jretconser.2018.01.005>
- Baabdullah, A. M., Alalwan, A. A., Rana, N. P., Kizgin, H., & Patil, P. (2019). Consumer use of mobile banking (m-banking) in Saudi Arabia: Towards an integrated model. *International Journal of Information Management*, 44, 38–52. <https://doi.org/10.1016/j.ijinfomgt.2018.09.002>
- Chaouali, W., & Souiden, N. (2019). The role of cognitive age in explaining mobile banking resistance among elderly people. *Journal of Retailing and Consumer Services*, 50, 342–350. <https://doi.org/10.1016/j.jretconser.2018.07.009>
- Gašić, M., Stojiljković, M., & Ivanović, V. (2013). Application forms of electronic banking in practice. *BizInfo Blace*, 4(2), 49–63
- Kuisma, T., Laukkanen, T., & Hiltunen, M. (2007). Mapping the reasons for resistance to Internet banking: A means–end approach. *International Journal of Information Management*, 27(2), 75–85. <https://doi.org/10.1016/j.ijinfomgt.2006.08.006>
- Kumar, R., Singh, R., Kumar, K., Khan, S., & Corvello, V. (2023). How does perceived risk and trust affect mobile banking adoption? Empirical evidence from India. *Sustainability*, 15(5), 4053. <https://doi.org/10.3390/su15054053>
- Li, F., Lu, H., Hou, M., Cui, K., & Darbandi, M. (2021). Customer satisfaction with bank services: The role of cloud services, security, e-learning and service quality. *Technology in Society*, 64, 101487. <https://doi.org/10.1016/j.techsoc.2020.101487>
- Malaquias, R. F., & Hwang, Y. (2019). Mobile banking use: A comparative study with Brazilian and US participants. *International Journal of Information Management*, 44, 132–140. <https://doi.org/10.1016/j.ijinfomgt.2018.10.004>
- Malik, H. A. M., Muhammad, A., & Sajid, U. (2021). Analyzing usability of mobile banking applications in Pakistan. *Sukkur IBA Journal of Computing and Mathematical Sciences*, 5(2), 25–35. <https://doi.org/10.30537/sjcms.v5i2.883>
- Metlo, M. Y., Hussain, N., Saqib, G., Phulpoto, K., & Abro, S. (2021). Impact of mobile banking on customers' satisfaction. *International Journal of Management*, 12(1), 1263–1271. <https://doi.org/10.34218/IJM.12.1.2021.111>
- Monica, T. B., Iuliana, C., & Mihai, T. (2019). Studying the user experience in online banking services: An eye-tracking application. *Studies in Business and Economics*, 14(2), 193–208. <https://doi.org/10.2478/sbe-2019-0034>
- Narodna banka Srbije. (2024). *Spisak banaka koje posluju u Srbiji*. <https://www.nbs.rs/sr/finansijske-institucije/banke/spisak-banaka/>
- Orehovački, T., Blašković, L., & Kurevija, M. (2023). Evaluating the perceived quality of mobile banking applications in Croatia: An empirical study. *Future Internet*, 15(1), 8. <https://doi.org/10.3390/fi15010008>
- Priya, R., Gandhi, A. V., & Shaikh, A. (2018). Mobile banking adoption in an emerging economy. *Benchmarking: An International Journal*, 25(2), 743–762. <https://doi.org/10.1108/BIJ-01-2016-0009>
- Seetharaman, P. (2020). Business model shifts: Impact of COVID-19. *International Journal of Information Management*, 54, 102173. <https://doi.org/10.1016/j.ijinfomgt.2020.102173>
- Shahid, S., Islam, J. U., Malik, S., & Hasan, U. (2022). Examining consumer experience in using m-banking apps: A study of its antecedents and outcomes. *Journal of Retailing and Consumer Services*, 65, 102870. <https://doi.org/10.1016/j.jretconser.2021.102870>
- Sharma, N. (2024). A digital cohort analysis of consumers' mobile banking app experience. *International Journal of Consumer Studies*, 48(1), e12989. <https://doi.org/10.1111/ijcs.12989>
- Sharma, V., & Tiwari, A. K. (2021). A study on user interface and user experience designs and its tools. *World Journal of Research and Review*, 12(6), 41–45.
- Singh, S., & Srivastava, R. K. (2018). Predicting the intention to use mobile banking in India. *International Journal of Bank Marketing*, 36(2), 357–378. <https://doi.org/10.1108/IJBM-12-2016-0186>
- Srivastava, S., & Vishnani, S. (2021). Determinants of mobile bank usage among the bank users in North India. *Journal of Financial Services Marketing*, 26(1), 34–51. <https://doi.org/10.1057/s41264-020-00083-9>
- Zhou, Q., Lim, F. J., Yu, H., Xu, G., Ren, X., Liu, D., & Xu, H. (2021). A study on factors affecting service quality and loyalty intention in mobile banking. *Journal of Retailing and Consumer Services*, 60, 102424. <https://doi.org/10.1016/j.jretconser.2020.102424>
- Zhu, J., & Wang, M. (2022). Analyzing the effect of people utilizing mobile technology to make banking services more accessible. *Frontiers in Public Health*, 10, 879342. <https://doi.org/10.3389/fpubh.2022.879342>