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POVERENJE I PERCEPCIJA ISPUNJENOSTI OČEKIVANJA MEĐU KORISNICIMA ONLAJN BANKARSKIH USLUGA U SRBIJI: REZULTATI ISTRAŽIVANJA

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Rezime: *Cilj ovog rada je da ispita da li postoje statistički značajne razlike u stepenu poverenja i percepciji ispunjenosti očekivanja prilikom korišćenja usluga onlajn bankarstva među korisnicima različitog pola, starosnih grupa i obrazovnih profila. Istraživanje je sprovedeno u Srbiji u periodu od avgusta 2024. do februara 2025. godine primenom onlajn upitnika koji je obuhvatio 200 aktivnih korisnika usluga onlajn bankarstva. Rezultati statističkih analiza pokazali su da ne postoje značajne razlike u stepenu poverenja i percepciji ispunjenosti očekivanja između ispitanika različitog pola, starosti i obrazovanja, što ukazuje na to da demografske karakteristike nisu odlučujući faktor u formiranju poverenja i percepciji kvaliteta onlajn bankarskih usluga. Dobijeni rezultati doprinose razumevanju ponašanja korisnika onlajn bankarskih usluga i mogu biti od koristi bankama za dalje unapređenje digitalnih servisa, kroz fokus na univerzalne faktore poverenja i zadovoljstva, umesto na demografska obeležja korisnika.*

Ključne reči: onlajn bankarstvo, zadovoljstvo korisnika, poverenje, ispunjenost očekivanja, demografske razlike

JEL klasifikacija: D12, O33, G21

Uvod

Poverenje u onlajn bankarstvo postalo je centralna tema savremenih istraživanja u oblasti menadžmenta i ponašanja potrošača, usled brzog rasta i širokog usvajanja digitalnih finansijskih usluga (Alboqami, 2018). U sve digitalizovanijem finansijskom okruženju, poverenje ne predstavlja samo poželjnu karakteristiku, već osnovni element koji omogućava efikasne poslovne interakcije. Važnost poverenja posebno dolazi do izražaja u mobilnoj trgovini i onlajn bankarstvu, gde odsustvo lične, direktne interakcije povećava neizvesnost i percipirani rizik (Wang et al., 2015; Li & Yeh, 2010). Za pružaoce usluga mobilnog bankarstva, uspostavljanje početnog poverenja je od ključnog značaja, jer direktno utiče na prihvatanje usluga, stepen angažovanja korisnika usluga i njihovo dugoročno zadržavanje (Zhou, 2012).

Poverenje potrošača u usluge onlajn bankarstva podložno je uticaju brojnih međusobno povezanih faktora. Među njima se izdvajaju: robusnost zaštite privatnosti i bezbednosne mere, usklađenost sa zajedničkim vrednostima, upotrebljivost i pouzdanost tehnološki zasnovanih funkcija, društveni uticaj, kao i percipirani rizici povezani sa digitalnim transakcijama. Luhmann (2000) ističe da negovanje poverenja u onlajn kontekstu nije jednokratni napor, već kontinuirani izazov neophodan za održivi razvoj i rast onlajn finansijskih usluga. Priroda onlajn bankarstva, koja se u velikoj meri oslanja na tehnologiju i ne uključuje ličnu ljudsku interakciju, uvodi specifične izazove vezane za poverenje. Korisnici imaju izazov da se snalaze kroz složene interfejse, štite osetljive finansijske podatke i obavljaju transakcije preko digitalnih mreža koje su inherentno izložene određenim sajber pretnjama (Alboqami, 2018).

Tradicionalne banke često uživaju relativno viši nivo poverenja potrošača zahvaljujući svojoj dugogodišnjoj reputaciji, percipiranoj pouzdanosti, usklađenosti sa propisima i fizičkoj mreži filijala, koja korisnicima pruža opipljiv osećaj sigurnosti (Moden, 2021). Međutim, postepeno smanjenje broja fizičkih filijala i prelazak ka potpuno digitalnim modelima bankarstva dovode u pitanje ovaj tradicionalni temelj poverenja. Paralelno s tim, fintek kompanije i neo-banke stiču kredibilitet nudeći inovativna, korisnički orijentisana rešenja koja daju prioritet praktičnosti, transparentnosti i besprekornom digitalnom iskustvu. Ova evolucija ukazuje da tehnološka sofisticiranost, personalizacija usluga i kvalitet proizvoda postaju sve značajniji faktori u oblikovanju poverenja potrošača u eri digitalnog bankarstva (Broekhoff et al., 2024).

Zadovoljstvo korisnika u onlajn bankarstvu prevazilazi funkcionalni kvalitet usluge - kao što su brzina izvršenja transakcija, dostupnost sistema i bezbednost podataka - i obuhvata relacione i iskustvene aspekte, uključujući personalizovanu komunikaciju, pažnju usmerenu prema individualnim potrebama korisnika i zaštitu njihovih interesa (Parasuraman et al., 2005; Flavián et al., 2006). Svaki korisnik ima svoja očekivanja prilikom korišćenja bankarskih usluga, koja predstavljaju osnovu za procenu celokupnog stepena zadovoljstva (Lukić Nikolić et al., 2026). Empirijski dokazi pokazuju da neispunjavanje ovih očekivanja od strane banaka ne samo da izaziva nezadovoljstvo, već i narušava poverenje korisnika i smanjuje njihovu lojalnost (Ennew & Sekhon, 2007; Zhou, 2012). S druge strane, dosledno ispunjavanje ili prevazilaženje očekivanja jača dugoročne odnose sa korisnicima, promoviše pozitivnu atmosferu i doprinosi stvaranju održive konkurentske prednosti na digitalnom tržištu (Flavián et al., 2006; Parasuraman et al., 2005).

Cilj ovog rada je da se ispita da li postoje statistički značajne razlike u nivoima poverenja i percipiranom ispunjenju očekivanja prilikom korišćenja usluga onlajn bankarstva među korisnicima različitog

pola, starosne dobi i stepena obrazovanja. Kako digitalno bankarstvo postaje sve prisutnije, poverenje i zadovoljstvo korisnika predstavljaju ključne faktore koji utiču na stepen prihvatanja usluga, kontinuirano korišćenje usluga i lojalnost korisnika.

Razumevanje razlika u poverenju i zadovoljstvu u zavisnosti od demografskih karakteristika pruža uvid u ponašanje potrošača, omogućavajući bankama i pružaocima digitalnih finansijskih usluga da koncipiraju servise koji zadovoljavaju različite potrebe korisnika, smanjuju percipirane rizike i unapređuju ukupno korisničko iskustvo. Ispitivanje ove dinamike doprinosi, kako teorijskim modelima ponašanja u onlajn bankarstvu, tako i praktičnim strategijama za razvoj bezbednih, pouzdanih i korisnički orijentisanih digitalnih platformi.

Pregled literature

Poverenje je prepoznato kao značajan činilac ljudske društvene interakcije (Liu et al., 2019), ključna odrednica ponašanja potrošača u digitalnom okruženju (Dang et al., 2020) i suštinska komponenta finansijskih usluga (Van der Cruijsen et al., 2023). U kontekstu mobilnog bankarstva, poverenje predstavlja osnovni mehanizam za smanjenje neizvesnosti i percipiranog rizika, što direktno olakšava prihvatanje usluga, ponovno angažovanje korisnika i jačanje dugoročne lojalnosti (Kanani & Glavee-Geo, 2021).

Da bi se efikasno procenio stepen poverenja korisnika u pogledu mobilnog bankarstva, ono mora biti operacionalizovano kroz više dimenzija, uključujući percepciju korisnika o integritetu sistema, kvalitet odnosa između klijenta i banke, kao i ukupnu kompetentnost i pouzdanost institucije (Van Deventer, 2024). Ove dimenzije zajedno oblikuju poverenje korisnika u platformu i značajno utiču na njihovu spremnost da obavljaju finansijske transakcije, dele osetljive podatke i koriste nove usluge (Gefen et al., 2003). Poverenje, shodno tome, nije statički atribut, već dinamičan konstrukt koji se razvija paralelno sa tehnološkim inovacijama, promenama u načinu pružanja usluga i evolucijom očekivanja korisnika.

Kako digitalno bankarstvo nastavlja da se razvija, tako se pojavljuju novi izazovi i mogućnosti za izgradnju i održavanje poverenja. Na primer, sve češće korišćenje finansijskih alata zasnovanih na veštačkoj inteligenciji, poput četbotova i virtuelnih asistenata, donosi prednosti u pogledu efikasnosti, ali istovremeno izaziva potencijalnu zabrinutost vezanu za privatnost podataka, transparentnost i tačnost automatizovanih saveta (Lappeman et al., 2023). Ovi razvojni trendovi naglašavaju značaj kontinuiranog praćenja i jačanja poverenja, budući da ono direktno utiče na usvajanje usluga, angažovanje korisnika i ukupni uspeh mobilnog bankarstva. Razumevanjem poverenja kao višedimenzionalnog i evoluirajućeg fenomena, finansijske institucije mogu da koncipiraju pouzdanije, korisnički orijentisane platforme koje su usklađene sa očekivanjima klijenata i tako povećaju percipiranu bezbednost digitalnih finansijskih interakcija.

Poverenje u digitalne finansijske usluge široko se prepoznaje kao višedimenzionalni konstrukt, koji obično obuhvata tri osnovne dimenzije: dobronamernost, iskrenost i kompetentnost (Martínez-Navalón et al., 2023; Bitkina et al., 2022; Casaló et al., 2007). *Dobronamernost* odražava uverenje potrošača da pružalac usluga zaista daje prioritet njihovoj dobrobiti i da je motivisan željom da neguje obostrano koristan odnos, umesto da teži isključivo sopstvenom interesu (Martínez-Navalón et al., 2023). U kontekstu onlajn bankarstva, dobronamernost podrazumeva da platforma proaktivno odgovara na trenutne i buduće potrebe korisnika, nudeći usluge koje su ne samo funkcionalno efikasne,

već i usklađene sa vrednostima i očekivanjima kupaca. Ova dimenzija je posebno značajna u digitalnim okruženjima, gde odsustvo interakcije licem u lice može pojačati percepciju brige i pažnje prema korisnicima. Iskrenost se odnosi na očekivanje da će pružalac usluga postupati s integritetom - ispunjavajući obećanja, komunicirajući transparentno i izbegavajući bilo koji oblik obmanjujuće prakse (Casaló et al., 2007). Za digitalne platforme, iskrenost uključuje pružanje tačnih i jasnih informacija u vezi sa uslugama, naknadama i rizicima, kao i održavanje transparentnosti u automatizovanim procesima, uključujući algoritamske preporuke i asistenciju vođenu veštačkom inteligencijom. Uspostavljanje iskrenosti ključno je za ublažavanje skepticizma i jačanje poverenja korisnika u pouzdanost platforme. *Kompetentnost* označava percepciju da pružalac usluga poseduje neophodnu stručnost, infrastrukturu i resurse - tehničke, finansijske i ljudske - za pružanje pouzdanih i efikasnih usluga (Casaló et al., 2007). U onlajn bankarstvu, kompetentnost se ogleda u sigurnim sistemima, efikasnoj obradi transakcija i doslednom kvalitetu usluge, što dodatno jača poverenje korisnika u sposobnost platforme da bezbedno upravlja osetljivim finansijskim informacijama. Platforma koja se doživljava kao kompetentna pruža korisnicima sigurnost da se njihovim osetljivim finansijskim podacima i transakcijama upravlja profesionalno i precizno, što je ključno za dugoročno očuvanje poverenja.

Zajedno, dimenzije dobronamernosti, iskrenosti i kompetentnosti čine čvrst temelj poverenja potrošača u digitalne finansijske usluge, oblikujući kako početne odluke o prihvatanju platforme, tako i dugoročno angažovanje korisnika. One ne utiču samo na percepciju i stavove korisnika, već i na konkretno ponašanje, uključujući kontinuirano korišćenje platforme, spremnost za deljenje ličnih podataka i promovisanje usluge kroz pozitivnu usmenu komunikaciju (Martínez-Navalón et al., 2023). Razumevanje i aktivno negovanje ovih dimenzija je od ključnog značaja za finansijske institucije koje žele da grade i održavaju trajne odnose poverenja u sve digitalizovanijem bankarskom okruženju.

Da bi se u potpunosti razumela i analizirala dinamika poverenja u finansijskim uslugama, neophodno je uzeti u obzir demografske varijable, uključujući etničku pripadnost, starost i pol. Pol je posebno značajan, s obzirom na sve veće ekonomsko učešće žena i njihovo intenzivnije angažovanje u formalnim finansijskim sistemima. Tradicionalne pretpostavke često prikazuju žene kao sklonije riziku od muškaraca, međutim, Schubert i saradnici (1999) ističu da ovakve generalizacije u velikoj meri zavise od konteksta i mogu odražavati društvene predrasude, a ne stvarne razlike u ponašanju. Empirijski rezultati pružaju preciznije i uravnoteženije razumevanje ovih obrazaca, naglašavajući potrebu za detaljnijim istraživanjima demografskih efekata na poverenje i zadovoljstvo korisnika u digitalnom bankarstvu. Na primer, međunacionalna studija koju su sproveli Heyert i Weill (2023) pokazala je da žene generalno iskazuju viši nivo poverenja u bankarske institucije u poređenju sa muškarcima, kao i da društva sa većom rodnom ravnopravnošću imaju veći stepen poverenja među klijentima ženskog pola. Dopunjujući ove rezultate, Natarajan et al. (2018) uočili su da žene često iskazuju jače namere da usvoje onlajn bankarstvo u poređenju sa muškarcima, dok starije osobe mogu pokazivati veće poverenje u digitalne finansijske usluge nego mlađi korisnici. Uprkos ovim rezultatima, literatura ne pruža jedinstvenu perspektivu o razlikama u poverenju zasnovanim na polu. Rezultati se razlikuju u zavisnosti od konteksta, kulturnih faktora i tipa finansijskih usluga, što ističe složenost formiranja poverenja i njegovu interakciju sa demografskim varijablama. Ovaj nedostatak konsenzusa naglašava potrebu za empirijskim istraživanjem kako bi se bolje razumelo kako pol, ali i demografske karakteristike u širem smislu, oblikuju poverenje, usvajanje i angažovanje korisnika u digitalnom bankarskom okruženju (Sholevar & Bachmann, 2025).

Prethodna istraživanja ukazuju da se ponašanja i očekivanja vezana za poverenje u finansijskim uslugama mogu razlikovati među demografskim grupama, uključujući pol, starost i obrazovanje, često pod

uticajem percepcije pouzdanosti sistema, kvaliteta informacija i transparentnosti usluga (Zhou, 2011). Iako su ovi faktori prepoznati kao ključne determinante poverenja, empirijski nalazi o njihovom uticaju ostaju dvosmisleni i ponekad kontradiktorni, što ističe složenost formiranja poverenja u digitalnim finansijskim kontekstima. Ispitivanje ovog jaza u znanju postaje posebno značajno u zemljama u razvoju, gde brzo usvajanje mobilnog bankarstva transformiše finansijski segment i uvodi veoma raznoliku bazu korisnika. U takvim uslovima, demografski faktori mogu imati još izraženiju ulogu u oblikovanju poverenja, jer korisnici različito pristupaju novim tehnologijama, imaju različite nivoe digitalne pismenosti i razlikuju se u stavovima prema finansijskim institucijama. Razumevanje kako se dinamika poverenja razlikuje među ovim grupama ključno je za dizajniranje inkluzivnih platformi za mobilno bankarstvo koje jačaju poverenje, podstiču usvajanje i održavaju dugoročno angažovanje korisnika.

U ovom radu su postavljene tri hipoteze koje su opisane u Tabeli 1.

Tabela 1 - Hipotetički okvir rada

Hipoteza	Teorijska osnova	Izvori
H1: Ne postoji statistički značajna razlika u nivou poverenja i percepciji ispunjenja očekivanja prilikom korišćenja usluga onlajn bankarstva između ispitanika različitog pola.	Iako neka istraživanja ukazuju da postoje razlike prilikom korišćenja tehnologije između muškaraca i žena, istraživanja u oblasti onlajn bankarstva pokazuju da pol nije presudan faktor za poverenje i percepciju zadovoljstva. Ključni faktori su sigurnost, jednostavnost upotrebe i reputacija banke, što važi podjednako za oba pola.	Gefen & Straub, (1997) Zhou, (2012)
H2: Ne postoji statistički značajna razlika u nivou poverenja i percepciji ispunjenja očekivanja prilikom korišćenja usluga onlajn bankarstva između ispitanika različite starosti.	Starosna dob ima uticaj na percepciju tehnologije, ali istraživanja pokazuju da poverenje u onlajn bankarstvo zavisi pre svega od sigurnosti sistema, reputacije banke i jednostavnosti upotrebe, a ne toliko od starosne dobi.	Yoon, (2010) Martins, Oliveira, & Popovič (2014)
H3: Ne postoji statistički značajna razlika u nivou poverenja i percepciji ispunjenja očekivanja prilikom korišćenja usluga onlajn bankarstva između ispitanika različitog obrazovanja.	Iako obrazovanje može da doprinese višem nivou digitalnih kompetencija, istraživanja ukazuju da poverenje u onlajn bankarstvo zavisi pre svega od institucionalnih i tehničkih garancija (sigurnost, transparentnost, reputacija banke), a ne od formalnog obrazovanja korisnika.	Venkatesh, Thong, & Xu, (2012) Ennew & Sekhon, (2007)

Izvor: Autori na osnovu pregleda literature

Metodologija istraživanja

Istraživanje je sprovedeno primenom posebno koncipiranog upitnika koji su popunjavali korisnici usluga onlajn bankarstva u Srbiji. Upitnik se sastojao iz tri dela. Prvi deo upitnika obuhvatio je profilna pitanja kao što su pol, starost i obrazovanje ispitanika. Drugi deo upitnika obuhvatio je pitanje koje se odnosi na stepen zadovoljstva ispitanika uslugama onlajn bankarstva. Treći deo upitnika obuhvatio je tvrdnje koje su svrstane u dve skale: Stepen poverenja i Stepen ispunjenosti očekivanja u pogledu usluga onlajn bankarstva. Ispitanici su imali zadatak da na petostepenoj Likertovoj skali označe u kojoj meri se slažu / ne slažu sa navedenim tvrdnjama. Tvrdnje u okviru navedenih skala su formirane po uzoru na rad Malc-a i saradnika (2023) i prikazane su u tabelama 4 i 5.

Prosečno vreme popunjavanja upitnika bilo je 13 minuta. Ciljna populacija u ovom istraživanju bili su aktivni korisnici usluga onlajn bankarstva u Srbiji. Link ka onlajn upitniku distribuiran je putem više komunikacionih kanala: (1) putem društvenih mreža (Facebook, LinkedIn), (2) postavljanjem u tematske forume i specijalizovane grupe koje su posvećene digitalnom bankarstvu, i (3) direktnim kontaktiranjem potencijalnih ispitanika putem elektronske pošte, uz kratko objašnjenje svrhe istraživanja i poziv za učešće. Na osnovu analitike sa društvenih mreža i evidencije o broju poslatih mejlova, procenjuje se da je upitnik videlo oko 500 potencijalnih ispitanika. U periodu od avgusta 2024. do februara 2025. godine na upitnik je odgovorilo ukupno 200 ispitanika, što predstavlja stopu odgovora od 40% i smatra se zadovoljavajućom stopom u društvenim naukama (De Vaus, 2013). Ispitanici su dobrovoljno učestvovali u istraživanju, uz punu saglasnost za korišćenje njihovih podataka u svrhu naučnog istraživanja.

Prikupljeni odgovori su obrađeni primenom Microsoft® Excel® 2019 i Statistical Software for Social Sciences (SPSS), verzija 26. Kolmogorov-Smirnov test je korišćen za procenu normalnosti distribucije podataka. Pošto su rezultati sa značajnošću Sig.=0,000 pokazali da pretpostavka normalnosti distribucije podataka nije zadovoljena, za statističku analizu primenjene su neparametarske tehnike. Man-Whitney test je korišćen za poređenje razlika između dve grupe, dok je Kruskal-Wallis test korišćen za poređenje razlika između tri ili više grupa sa intervalom poverenja od 95%. Levenov test jednakosti varijansi primenjen je u svim testovima upoređujući razlike među grupama, zadovoljavajući pretpostavku o homogenoj varijansi u svim slučajevima ($p > 0,05$).

U tabeli 2 prikazani su rezultati Kronbahovog Alfa koeficijenta za obe korišćene skale. Sve vrednosti su iznad praga od 0,7, što ukazuje na visoku pouzdanost korišćenih skala.

Tabela 2 - Vrednosti Kronbahovog Alfa koeficijenta za merne skale

Br.	Skale	N	Kronbah Alfa
1.	Stepen poverenja	4	0,970
2	Stepen ispunjenja očekivanja	3	0,902

Izvor: Autori

Rezultati istraživanja i diskusija

Tabela 3 prikazuje osnovne informacije o ispitanicima. U istraživanju je učestvovalo ukupno 200 ispitanika. Prema polnoj strukturi, većinu čine žene (63%), dok muškarci učestvuju sa 37%. Kada je reč o starosnoj strukturi, najveći procenat ispitanika pripada grupi od 35 do 44 godina (40%), dok je najmanje zastupljena starosna grupa od preko 54 godine (7%). U pogledu obrazovne strukture, najveći deo ispitanika ima fakultetsko obrazovanje, uključujući osnovne i master studije (50,5%) i doktorske studije (17,5%), što ukupno čini skoro dve trećine uzorka (68%). Manji deo ispitanika završio je srednju školu (17%) ili višu školu (15%).

Tabela 3 - Osnovne informacije o ispitanicima

	N		%
Pol			
Muški			37,0
Ženski			63,0
Starost			
Od 18 do 24	17,0		17,0
Od 25 do 34	17,0		12,0
Od 35 do 44	17,0		40,0
Od 45 do 54	17,0		24,0
Preko 54 godine	17,0		7,0
Obrazovanje			
Srednja škola	34		17,0
Viša škola	30		15,0
Fakultet (osnovne ili master studije)	101		50,5
Fakultet (doktorske studije)	35		17,5

Izvor: Autori

Tabela 4 prikazuje rezultate vezane za zadovoljstvo ispitanika uslugama onlajn bankarstva, mereno na Likertovoj petostepenoj skali. Prosečna ocena zadovoljstva iznosi M = 4,41 uz standardnu devijaciju SD = 0,751. Najveći procenat ispitanika se izjasnio veoma pozitivno, 54,5% dalo je maksimalnu ocenu (5), dok je dodatnih 34,5% ispitanika dalo ocenu 4. Neutralan stav (ocena 3) izrazilo je svega 8,5% ispitanika, dok su ocene 1 i 2 koje ukazuju na nizak stepen zadovoljstva uslugama onlajn bankarstva bile gotovo zanemarljive (0% i 2,5%). Ovi rezultati ukazuju da su usluge onlajn bankarstva generalno dobro prihvaćene među korisnicima, sa dominantno pozitivnim ocenama i izraženim zadovoljstvom ispitanika.

Tabela 4 - Deskriptivna statistika stepena zadovoljstva ispitanika aplikacijama za onlajn bankarstvo

Br.	Tvrdnja	M	SD	Ocene	N	%
1.	Zadovoljan/a sam aplikacijom za onlajn bankarstvo.	4,41	0,751	1	0	0,0
				2	5	2,5
				3	17	8,5
				4	69	34,5
				5	109	54,5

Izvor: Autori

Tabela 5 predstavlja rezultate deskriptivne statistike za skalu stepen poverenja korisnika u usluge onlajn bankarstva.
Rezultati pokazuju da ispitanici generalno iskazuju visok stepen poverenja u bezbednost onlajn bankarstva. Najviša prosečna ocena zabeležena je kod tvrdnje da su transakcije bezbedne (M = 4,08; SD = 1,070), gde se 76,5% ispitanika izjasnilo ocenom 4 ili 5. Slično, visoko poverenje beleži se i u pogledu zaštite finansijskih podataka (M = 3,94), pri čemu je 69% ispitanika dalo ocenu 4 ili 5. Poverenje u zaštitu ličnih podataka (M = 3,89) i u prevenciju krađe identiteta i pronevere (M = 3,91) takođe je izraženo, iako uz nešto veći udeo neutralnih i nižih ocena. Dobijeni rezultati ukazuju da korisnici onlajn bankarskih usluga najviše poverenja imaju u bezbednost transakcija, dok je poverenje u prevenciju krađe identiteta i zaštitu ličnih podataka nešto niže, ali i dalje pretežno pozitivno.

Tabela 5 - Deskriptivna statistika u pogledu poverenja korisnika u usluge onlajn bankarstva

Br.	Tvrdnja	M	SD	Ocene	N	%
1.	Imam poverenje u banku da su moji lični podaci zaštićeni.	3,89	1,173	1	13	6,5
				2	9	4,5
				3	44	22,0
				4	55	27,5
				5	79	39,5
2.	Imam poverenje u banku da su moji finansijski podaci zaštićeni.	3,94	1,156	1	12	6,0
				2	9	4,5
				3	41	20,5
				4	56	28,0
				5	82	41,0

3.	Imam poverenje u banku da su moje transakcije bezbedne.	4,08	1,070	1	8	4,0
				2	10	5,0
				3	29	14,5
				4	65	32,5
				5	88	44,0
4.	Imam poverenje u banku da neće doći do krađe identiteta i pronevere.	3,91	1,150	1	10	5,0
				2	16	8,0
				3	34	17,0
				4	63	31,5
				5	77	38,5

Izvor: Autori

Tabela 6 predstavlja rezultate deskriptivne statistike za skalu stepen ispunjenosti očekivanja. Rezultati pokazuju da su ispitanici u najvećoj meri zadovoljni ispunjenošću očekivanja u vezi sa uslugama onlajn bankarstva. Najviša prosečna ocena dodeljena je tvrdnji da su ispunjena očekivanja u pogledu vremena izvršenja usluga (M = 4,28; SD = 0,931), pri čemu je čak 82,5% ispitanika dalo ocenu 4 ili 5. U pogledu vrste usluga onlajn bankarstva, prosečna ocena iznosi M = 4,12, sa 77% pozitivnih ocena (4 i 5). Najniža prosečna vrednost zabeležena je kod rešavanja problema tokom korišćenja usluga onlajn bankarstva (M = 4,04; SD = 1,067), ali je i ovde više od 73% ispitanika izrazilo visok nivo zadovoljstva (ocenom 4 ili 5). Dobijeni rezultati ukazuju da korisnici najbolje ocenjuju pravovremenost izvršenja usluga, dok nešto slabije, iako i dalje pretežno pozitivno, ocenjuju efikasnost rešavanja problema.

Tabela 6 - Deskriptivna statistika u pogledu stepena ispunjenosti očekivanja

Br.	Tvrdnja	M	SD	Ocene	N	%
1.	Sve što je naznačeno u pogledu vrste usluga onlajn bankarstva je ispunjeno.	4,12	0,975	1	4	2,0
				2	9	4,5
				3	33	16,5
				4	67	33,5
				5	87	43,5
2.	Sve što je naznačeno u pogledu vremena izvršenja usluga je ispunjeno.	4,28	0,931	1	3	1,5
				2	8	4,0
				3	24	12,0
				4	60	30,0
				5	105	52,5
3.	Svi problemi koji su se pojavili u toku korišćenja usluga onlajn bankarstva su brzo rešeni.	4,04	1,067	1	7	3,5
				2	11	5,5
				3	35	17,5
				4	62	31,0
				5	85	42,5

Izvor: Autori

Rezultati statističkih testova i diskusija

Neparametarski statistički testovi, Mann-Whitney i Kruskal-Wallis, su primenjeni za istraživanje potencijalnih statistički značajnih razlika u odgovorima ispitanika. U tabeli 7 prikazani su rezultati Mann-Whitney testa u pogledu polne strukture ispitanika.

Tabela 7 - Rezultati Mann-Whitney testa (polna struktura ispitanika)

Skala	Odgovor	N	M	Md	Mann-Whitney	Z	Asymp. Sig.
Stepen poverenja	Muško	74	3,80	4,0	3.936,500	-1,877	0,060
	Žensko	126	4,04	4,25			
Stepen ispunjenosti očekivanja	Muško	74	4,04	4,33	4.080,000	-1,507	0,132
	Žensko	126	4,21	4,33			

Izvor: Autori

Za skalu stepen poverenja, rezultati Mann-Whitney testa pokazuju srednju vrednost 3,80 za muškarce i 4,04 za žene, sa medijanama 4,00 i 4,25. Mann-Whitney Z vrednost je -1,877, a asimptotska značajnost (p-vrednost) je 0,060. Dobijena p-vrednost je veća od uobičajeno korišćenog praga od 0,05, što sugeriše da ne postoji statistički značajna razlika između ispitanika muškog i ženskog pola u pogledu stepena poverenja koje imaju prilikom korišćenja usluga onlajn bankarstva. Za skalu stepen ispunjenja očekivanja, rezultati pokazuju srednju vrednost 4,04 za muškarce i 4,21 za žene sa istom medijanom od 4,33. Mann-Whitney Z vrednost je -1,507, a asimptotska značajnost (p-vrednost) je 0,132.

U tabeli 8 prikazani su rezultati Kruskal-Wallis testa u pogledu starosne strukture ispitanika.

Tabela 8 - Rezultati Kruskal-Wallis testa (starosna struktura ispitanika)

Skala	Odgovori	N	M	Md	Kruskal-Wallis	df	Asymp. Sig.
Stepen poverenja	Od 18 do 24	34	4,32	5,00	8,349	4	0,080
	Od 25 do 34	24	3,78	4,00			
	Od 35 do 44	80	3,87	4,00			
	Od 45 do 54	48	3,92	4,00			
	Preko 54 godine	414	3,89	4,50			
Stepen ispunjenosti očekivanja	Od 18 do 24	34	4,48	4,67	6,038	4	0,196
	Od 25 do 34	24	4,10	4,00			
	Od 35 do 44	80	4,13	4,33			
	Od 45 do 54	48	4,08	4,33			
	Preko 54 godine	14	3,71	4,00			

Izvor: Autori

Za skalu stepen poverenja, statistika Kruskal-Wallis testa je 8,349, a asimptotska značajnost (p-vrednost) je 0,080. Pošto je dobijena p-vrednost veća od praga od 0,05, ne postoji statistički značajna razlika u stepenu poverenja prema uslugama onlajn bankarstva u različitim starosnim grupama. Iako su ispitanici od 18 do 24 godine zabeležili najveću srednju vrednost (4,32), ova razlika ne dostiže statistički značaj, što sugeriše da sve starosne grupe imaju sličan nivo poverenja. Za skalu stepen ispunjenja očekivanja, statistika Kruskal-Wallis testa je 6,038, a asimptotska značajnost (p-vrednost) je 0,196. Samim tim, ne postoji statistički značajna razlika u pogledu stepena ispunjenja očekivanja od usluga onlajn bankarstva u odnosu na starost ispitanika.

U tabeli 9 prikazani su rezultati Kruskal-Wallis testa u pogledu nivoa obrazovanja ispitanika.

Tabela 9 - Rezultati Kruskal-Wallis testa (obrazovni nivo ispitanika)

Skala	Odgovori	N	M	Md	Kruskal-Wallis	df	Asymp. Sig.
Stepen poverenja	Srednja škola	34	3,60	4,00	2,483	3	0,478
	Viša škola	30	4,12	4,50			
	Fakultet (osnovne i master studije)	101	4,07	4,00			
	Fakultet (doktorske studije)	35	3,79	4,00			
Stepen ispunjenosti očekivanja	Srednja škola	34	3,93	4,00	2,400	3	0,494
	Viša škola	30	4,32	4,67			
	Fakultet (osnovne i master studije)	101	4,18	4,33			
	Fakultet (doktorske studije)	35	4,11	4,33			

Izvor: Autori

Za *skalu stepen poverenja*, statistika Kruskal-Wallis testa je 2,483, sa p-vrednošću od 0,478. Dobijena p-vrednost je nešto iznad praga značajnosti od 0,05, što sugeriše da ne postoji statistički značajna razlika u percipiranom stepenu poverenja među ispitanicima različitog nivoa obrazovanja. Iako je srednja vrednost za ispitanike sa višom školom (4,50) viša nego za druge grupe, razlika nije statistički značajna. To implicira da su percepcije poverenja u usluge onlajn bankarstva uglavnom slične među ispitanicima, bez obzira na njihov obrazovni nivo. U pogledu skale koja se odnosi na ispunjenje očekivanja, statistika Kruskal-Wallis testa je 2,400, dok je p-vrednost 0,494.

Tabela 10 sažeto prikazuje rezultate neparametarskih testova Mann-Whitney i Kruskal-Wallis koji su korišćeni za ispitivanje razlika u stepenu poverenja i percepciji ispunjenja očekivanja među korisnicima onlajn bankarstva prema polu, starosti i obrazovanju. Na osnovu dobijenih p-vrednosti, sve tri hipoteze su potvrđene, što ukazuje da demografske karakteristike ispitanika ne utiču statistički značajno na posmatrane varijable.

Tabela 10 - Prikaz rezultata testiranih hipoteza

Hipoteza	Test	Skala	Rezultat statistike	p-vrednost	Zaključak
H1: Ne postoji statistički značajna razlika u nivou poverenja i percepciji ispunjenja očekivanja između ispitanika različitog pola	Mann-Whitney	Poverenje	Z = -1,877	0,060	Potvrđena – nema značajne razlike
		Ispunjenje očekivanja	Z = -1,507	0,132	
H2: Ne postoji statistički značajna razlika u nivou poverenja i percepciji ispunjenja očekivanja između ispitanika različite starosti	Kruskal-Wallis	Poverenje	H = 8,349, df = 4	0,080	Potvrđena – nema značajne razlike
		Ispunjenje očekivanja	H = 6,038, df = 4	0,196	
H3: Ne postoji statistički značajna razlika u nivou poverenja i percepciji ispunjenja očekivanja između ispitanika različitog obrazovanja	Kruskal-Wallis	Poverenje	H = 2,483, df = 3	0,478	Potvrđena – nema značajne razlike
		Ispunjenje očekivanja	H = 2,400, df = 3	0,494	

Izvor: Autori

Zaključak

Cilj ovog istraživanja bio je da se ispita da li postoje statistički značajne razlike u stepenu poverenja i percepciji ispunjenja očekivanja prilikom korišćenja usluga onlajn bankarstva među korisnicima različitog pola, starosti i obrazovanja u Srbiji. Istraživanje je sprovedeno primenom strukturiranog onlajn upitnika, a rezultati su analizirani neparametarskim testovima Mann-Whitney i Kruskal-Wallis. Rezultati su pokazali da ne postoje značajne razlike u stepenu poverenja i percepciji ispunjenja očekivanja između ispitanika prema svim ispitivanim demografskim kategorijama. Sve hipoteze od kojih se pošlo u radu su potvrđene, ukazujući na to da korisnici različitog pola, starosne dobi i obrazovnog nivoa u proseku imaju sličan odnos prema onlajn bankarskim uslugama.

Rad ima nekoliko implikacija, kako za teoriju, tako i za praksu. Pre svega, rad potvrđuje rezultate prethodnih istraživanja da demografski faktori nisu odlučujući u formiranju poverenja i zadovoljstva korisnika onlajn bankarstva. Ovo doprinosi boljem razumevanju univerzalnih faktora koji oblikuju korisničko iskustvo u digitalnom bankarstvu i može poslužiti kao osnova za dalja istraživanja u ovom polju. Zatim, tu su i banke i pružaoci digitalnih finansijskih usluga koji mogu koristiti ove rezultate kako bi razvijali i unapređivali svoje onlajn servise fokusirajući se na kvalitet funkcionalnih i relacijskih aspekata usluge – sigurnost, jednostavnost korišćenja, transparentnost i pouzdanost – bez potrebe za prilagođavanjem po demografskim segmentima. Na ovaj način moguće je povećati poverenje i zadovoljstvo korisnika.

Sprovedeno istraživanje ima nekoliko ograničenja koja treba imati u vidu pri tumačenju rezultata. Prvo, uzorak ispitanika obuhvatio je 200 korisnika onlajn bankarstva u Srbiji, što predstavlja relativno mali uzorak u odnosu na ukupnu populaciju korisnika digitalnih bankarskih usluga, pa se rezultati možda ne mogu u potpunosti generalizovati na sve korisnike. Drugo, distribucija upitnika putem društvenih mreža, tematskih foruma i elektronske pošte mogla je izazvati selekcijsku pristrasnost, jer su učesnici verovatno aktivniji digitalni korisnici i samim tim možda imaju veću digitalnu pismenost i poverenje u tehnologiju od prosečnog korisnika. Treće, podaci su prikupljeni primenom tehnike upitnika, što znači da se oslanjaju na subjektivnu percepciju ispitanika i mogu biti podložni efektima socijalno poželjnog odgovaranja. Četvrto, istraživanje je sprovedeno u periodu od avgusta 2024. do februara 2025. godine, pa rezultati odražavaju stanje i ponašanje korisnika u tom vremenskom okviru i ne moraju nužno predstavljati dugoročne trendove. I pored ovih ograničenja, istraživanje daje vredne zaključke vezano za nivo poverenja i ispunjenje očekivanja korisnika onlajn bankarskih usluga u Srbiji, koji mogu poslužiti kao osnova za dalja istraživanja i praktične preporuke bankama u unapređenju digitalnih servisa.

Preporuka je da buduća istraživanja na ovu temu obuhvate veći i raznovrsniji uzorak korisnika usluga onlajn bankarstva iz Srbije ili drugih zemalja, kako bi se rezultati mogli generalizovati i upoređivati na međunarodnom nivou. Preporučuje se uključivanje drugih potencijalno značajnih faktora, kao što su prethodno iskustvo sa digitalnim uslugama, nivo digitalne pismenosti i tip bankarskih proizvoda koje korisnici koriste, kako bi se dublje razumela dinamika poverenja i zadovoljstva. U budućim istraživanjima može se primeniti kombinacija kvantitativnih i kvalitativnih metoda, npr. intervjui i fokus grupe, kako bi se dobili detaljniji uvidi u specifične izazove i preferencije korisnika u pogledu usluga onlajn bankarstva.

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TRUST AND PERCEIVED FULFILLMENT OF EXPECTATIONS AMONG ONLINE BANKING USERS IN SERBIA: RESEARCH FINDINGS

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Summary: *The aim of this paper is to examine whether statistically significant differences exist in the level of trust and the perception of expectation fulfillment in the use of online banking services among users of different genders, age groups, and educational backgrounds. The study was conducted in Serbia between August 2024 and February 2025 using an online questionnaire administered to 200 active users of online banking services. Findings from the statistical analysis revealed no significant differences in trust or in perceptions of expectation fulfillment across gender, age, or education. This suggests that demographic characteristics are not decisive factors in shaping trust or perceptions of service quality in the context of online banking. These results contribute to a deeper understanding of user behavior in digital financial services and provide valuable insights for banks seeking to enhance their online offerings. Rather than segmenting users primarily by demographic attributes, banks may benefit more from focusing on universal factors that foster trust and satisfaction across the entire customer base.*

Keywords: online banking, customer satisfaction, trust, fulfillment of expectations, demographic differences

JEL classification: D12, O33, G21

Introduction

Trust in online banking has become a central focus in contemporary management and consumer behavior research, reflecting the rapid growth and widespread adoption of digital financial services (Alboqami, 2018). In the increasingly digitalized financial landscape, trust is not merely a desirable trait but a foundational element that enables effective business interactions. Its importance is pronounced in mobile commerce and online banking, where the absence of face-to-face interaction heightens uncertainty and perceived risk (Wang et al., 2015; Li & Yeh, 2010). For mobile banking providers, establishing initial trust is crucial, as it directly influences user adoption, engagement, and retention (Zhou, 2012).

Consumer trust in online banking is impacted by multiple interrelated factors. These include the robustness of privacy protections and security measures, alignment with shared values, the usability and reliability of technology-driven features, social influence, and the perceived risks associated with digital transactions. Luhmann (2000) emphasizes that cultivating trust in such contexts is not a one-time effort but an ongoing challenge, essential for the sustainable growth of online financial services. The nature of online banking, which relies heavily on technology and lacks personal human interaction, introduces unique trust-related concerns. Users must navigate complex interfaces, protect sensitive financial data, and engage in transactions over digital networks that are inherently vulnerable to cyber threats (Alboqami, 2018).

Traditional banks often enjoy comparatively higher levels of consumer trust due to their long-standing reputation, perceived reliability, regulatory compliance, and physical branch networks that provide a tangible sense of security (Moden, 2021). However, the gradual reduction of physical branches and the shift toward fully digital banking models challenge this traditional trust foundation. In parallel, fintech companies and neo-banks are gaining credibility by offering innovative, user-centric solutions that prioritize convenience, transparency, and seamless digital experiences. This evolution suggests that technological sophistication, service personalization, and product quality are increasingly pivotal in shaping consumer confidence in the digital banking era (Broekhoff et al., 2024).

Customer satisfaction in online banking extends beyond functional service quality - such as transaction speed, system availability, and data security - to encompass relational and experiential aspects, including personalized communication, attentiveness to customer needs, and the protection of individual interests (Parasuraman et al., 2005; Flavián et al., 2006). Each customer brings distinct expectations when engaging with a banking service, and these expectations form the benchmark against which satisfaction is measured (Lukić Nikolić et al., 2026). Empirical evidence indicates that when banks fail to meet these expectations, it not only generates dissatisfaction but also erodes trust and diminishes customer loyalty (Ennew & Sekhon, 2007; Zhou, 2012). Conversely, consistently fulfilling or exceeding customer expectations strengthens long-term relationships, promotes positive word-of-mouth, and creates a sustainable competitive advantage in the digital marketplace (Flavián et al., 2006; Parasuraman et al., 2005).

The aim of this paper is to examine whether statistically significant differences exist in levels of trust and perceived fulfillment of expectations in online banking services among users of different gender identities, age groups, and educational backgrounds. As digital banking becomes increasingly prevalent, trust and satisfaction are critical factors influencing adoption, continued use, and customer loyalty. Understanding how trust varies across demographic segments provides insights into consumer behavior, enabling banks to design services that meet diverse user needs, reduce perceived risks, and enhance overall user experience. Examining these dynamics helps inform both theoretical models of online banking behavior and practical strategies for developing secure, dependable, and user-centered digital banking platforms.

Literature Review

Trust is recognized as a significant element of human social interaction (Liu et al., 2019), a critical determinant of consumer behavior in digital environments (Dang et al., 2020), and an essential component of financial services (Van der Cruijsen et al., 2023). In the context of mobile banking, trust functions as a key mechanism for mitigating uncertainty and perceived risk, which in turn facilitates user adoption, repeated engagement, and long-term loyalty (Kanani & Glavee-Geo, 2021).

To effectively assess trust in mobile banking, it must be operationalized through multiple dimensions, including customer perceptions of system integrity, the quality of the customer–bank relationship, and the institution's overall competence and reliability (Van Deventer, 2024). These dimensions collectively shape users' confidence in the platform and influence their willingness to perform financial transactions, share sensitive information, and engage with new services (Gefen et al., 2003). Trust is therefore not a static attribute but a dynamic construct, evolving alongside technological innovations, shifts in service delivery, and changes in customer expectations.

As digital banking continues to advance, new challenges and opportunities for trust emerge. For example, the growing adoption of artificial intelligence-driven financial tools, such as chatbots and virtual assistants, introduces both efficiency benefits and potential concerns regarding data privacy, transparency, and the accuracy of automated advice (Lappeman et al., 2023). These developments underscore the importance of continuously monitoring and reinforcing trust, as user confidence directly affects adoption rates, engagement, and the overall success of mobile banking services. By understanding trust as a multidimensional and evolving phenomenon, financial institutions can design more reliable, user-centric platforms that align with customer expectations and enhance the perceived safety of digital financial interactions.

Trust in digital financial services is widely recognized as a multidimensional construct, typically comprising three core dimensions: benevolence, honesty, and competence (Martínez-Navalón et al., 2023; Bitkina et al., 2022; Casaló et al., 2007). Benevolence reflects the consumer's belief that the service provider genuinely prioritizes their well-being and is motivated by a desire to foster a mutually beneficial relationship, rather than pursuing self-interest alone (Martínez-Navalón et al., 2023). In the context of online banking, benevolence implies that the platform proactively addresses users' current and future needs, offering services that are not only functionally effective but also aligned with customer values and expectations. This dimension is particularly important in digital environments, where the absence of face-to-face interaction can make users more sensitive to perceptions of care and attentiveness. Honesty refers to the expectation that the provider will act with integrity - fulfilling promises, communicating transparently, and avoiding any form of deceptive practice (Casaló et al., 2007). For digital platforms, honesty entails providing accurate and clear information regarding services, fees, and risks, as well as maintaining transparency in automated processes, such as those involving algorithmic recommendations or artificial intelligence-driven assistance. Establishing honesty is crucial for mitigating skepticism and reinforcing users' confidence in the reliability of the platform. Competence denotes the perception that the service provider possesses the necessary expertise, infrastructure, and resources - technical, financial, and human - to deliver reliable and effective services (Casaló et al., 2007). A platform perceived as competent assures users that their sensitive financial data and transactions are managed with professionalism and precision, which is essential for sustaining trust over time.

Together, benevolence, honesty, and competence form the foundation of consumer trust in digital financial services, shaping both initial adoption decisions and long-term engagement. These dimensions

not only influence user perceptions but also affect behavioral outcomes, including continued platform use, willingness to share personal data, and advocacy through positive word-of-mouth (Martínez-Navalón et al., 2023). Understanding and actively cultivating these dimensions is therefore critical for financial institutions aiming to foster durable trust relationships in increasingly digitalized banking environments.

To fully understand and analyze trust dynamics in financial services, it is essential to consider demographic variables, including gender, age, and education. Gender has received considerable attention due to the growing economic participation of women and their increasing engagement with formal financial systems. Traditional assumptions often portray women as more risk-averse than men; however, Schubert et al. (1999) caution that such generalizations are highly context-dependent and may reflect societal bias rather than inherent behavioral differences. Empirical evidence provides a more nuanced understanding. For instance, a cross-national study by Heyert and Weill (2023) found that women exhibit higher levels of trust in banking institutions than men, and that societies with greater gender equality tend to foster increased trust among female customers. Complementing these findings, Natarajan et al. (2018) reported that women often demonstrate stronger intentions to adopt electronic banking compared to men, and that older individuals may place greater trust in digital financial services than younger users. Despite these insights, the literature does not present a unified perspective on gender-based differences in financial trust. Results vary across contexts, cultures, and types of financial services, highlighting the complexity of trust formation and its interaction with demographic factors. This lack of consensus underscores the need for continued empirical investigation to better understand how gender - and demographic variables more broadly - shapes trust, adoption, and engagement in digital banking environments (Sholevar & Bachmann, 2025).

Prior research indicates that trust-related behaviors and expectations in financial services may vary across demographic groups, including gender, age, and educational background, often influenced by perceptions of system reliability, information quality, and service transparency (Zhou, 2011). While these factors are recognized as important determinants of trust, empirical findings regarding their impact remain mixed and sometimes contradictory, highlighting the complexity of trust formation in digital financial contexts. Addressing this knowledge gap is particularly important in emerging economies, where the rapid adoption of mobile banking is transforming financial landscapes and introducing a highly diverse user base. In such contexts, demographic factors may play an even more pronounced role in shaping trust, as users navigate innovative technologies, varying levels of digital literacy, and differing cultural attitudes toward financial institutions. Understanding how trust dynamics differ across these groups is therefore critical for designing inclusive, user-centric mobile banking platforms that foster confidence, encourage adoption, and sustain long-term engagement.

Table 1 provides an overview of the three hypotheses tested in this study.

Table 1 - Hypothetical Framework

Hypothesis	Theoretical basis	Sources
H1: There is no statistically significant difference in the level of trust or in the perception of expectation fulfillment in online banking services between respondents of different genders.	Although some studies suggest differences in technology use between men and women, research in the field of online banking indicates that gender is not a decisive factor influencing trust or perceived satisfaction. Instead, key determinants - such as security, ease of use, and the bank's reputation -affect users' perceptions equally across all genders.	Gefen & Straub, (1997) Zhou, (2012)
H2: There is no statistically significant difference in the level of trust or in the perception of expectation fulfillment in online banking services between respondents of different age groups.	While age can influence how individuals perceive and interact with technology, research indicates that trust in online banking is shaped primarily by system security, the bank's reputation, and ease of use, rather than by age itself.	Yoon, (2010) Martins, Oliveira, & Popovič (2014)
H3: There is no statistically significant difference in the level of trust or in the perception of expectation fulfillment in online banking services between respondents with different educational backgrounds.	Although higher levels of education may enhance digital competence, research suggests that trust in online banking is shaped primarily by institutional and technical assurances - such as security, transparency, and the bank's reputation - rather than by users' formal educational attainment.	Venkatesh, Thong, & Xu, (2012) Ennew & Sekhon, (2007)

Source: Authors based on the literature review

Research Methodology

Data were collected through a specially designed questionnaire administered to users of online banking services in Serbia. The instrument was structured into three sections. The first section captured respondents' demographic characteristics, including gender, age, and level of education. The second section contained a measure of overall satisfaction with online banking services. The third section comprised items organized into two scales: trust and expectation fulfillment in relation to online banking services. All items were evaluated using a five-point Likert scale, where respondents indicated the extent of their agreement/disagreement with the presented statements. The scale items were adapted from Malc et al. (2023) and are presented in Tables 4 and 5.

The average time required to complete the questionnaire was approximately 13 minutes. The target population for this study consisted of active users of online banking services in Serbia. The online questionnaire was distributed through multiple channels: (1) social media platforms, including Facebook and LinkedIn; (2) thematic forums and specialized groups dedicated to digital banking; and (3) direct e-mail invitations to potential respondents, followed by a brief explanation of the research objectives and a request for participation. Based on analytics from social media and records of e-mails sent, it is estimated that approximately 500 potential respondents had access to the questionnaire. Between August 2024 and February 2025, a total of 200 respondents completed the survey, yielding a response rate of 40%, which is considered satisfactory in social science research (De Vaus, 2013). Participation was entirely voluntary, and respondents provided informed consent for the use of their data for scientific purposes.

The data collected were processed using Microsoft® Excel® 2019 and IBM SPSS Statistics, version 26. The Kolmogorov-Smirnov test was employed to assess the normality of the data distribution. As the results indicated a significance level of Sig. = 0.000, the assumption of normality was not met, and non-parametric statistical techniques were applied. Differences between two groups were analyzed using the Mann-Whitney U test, while the Kruskal-Wallis H test was employed to assess differences among three or more groups, all with a 95% confidence interval. Levene's test for equality of variances was conducted for all group comparisons, confirming that the assumption of homogeneity of variance was satisfied in all cases ($p > 0.05$).

Table 2 presents the results of the Cronbach's Alpha coefficient for both scales used in the study. All values exceed the recommended threshold of 0.7, indicating that the scales demonstrate high internal reliability.

Table 2 - Values of Cronbach's Alpha Coefficient for Measurement Scales

Number	Scale	N	Cronbach Alfa
1.	Level of trust	4	0.970
2	Level of expectation fulfillment	3	0.902

Source: Authors

Research Results and Discussion

Table 3 provides an overview of the respondents' demographic characteristics. A total of 200 participants completed the survey. In terms of gender, the majority were women (63%), while men accounted for 37% of the sample. Regarding age distribution, the largest group of respondents was aged 35 to 44 years (40%), whereas individuals over 54 years were the least represented (7%). With respect to educational background, most respondents held university degrees, including both bachelor's and master's qualifications (50.5%), while those with doctoral degrees comprised 17.5%, together representing two-thirds of the sample (68%). The remaining participants had completed secondary education (17%) or college (15%).

Table 3 - Basic Information about the Respondents

	N		%
Gender			
Male			37.0
Female			63.0
Age			
From 18 to 24	17,0		17.0
From 25 to 34	17,0		12.0
From 35 to 44	17,0		40.0
From 45 to 54	17,0		24.0
Above 54 years	17,0		7.0
Education			
Secondary school	34		17.0
College	30		15.0
Faculty (undergraduate or master's studies)	101		50.5
Faculty (doctoral studies)	35		17.5

Source: Authors

Table 4 presents the results of respondents' satisfaction with online banking services, measured on a five-point Likert scale. The mean satisfaction score was M = 4.41 with a standard deviation of SD = 0.751. Most respondents expressed positive evaluations: 54.5% assigned the maximum score of 5, and an additional 34.5% rated their satisfaction as 4. Only 8.5% of respondents reported a neutral attitude (score 3), while scores of 1 and 2 were minimal, accounting for 0% and 2.5% of responses, respectively. These findings suggest that online banking services are well received among users, with predominantly high satisfaction levels and positive perceptions of service quality.

Table 4 - Descriptive Statistics of Respondents' Level of Satisfaction with Online Banking Applications

No.	Statement	M	SD	Marks	N	%
1.	I am satisfied with the online banking application.	4.41	0.751	1	0	0.0
				2	5	2.5
				3	17	8.5
				4	69	34.5
				5	109	54.5

Source: Authors

Table 5 presents the results of descriptive statistics for the scale of users' trust in online banking services. The results indicate that respondents exhibit a high level of trust in the security of online banking services. The highest mean score was observed for the statement regarding the security of transactions (M = 4.08; SD = 1.070), with 76.5% of respondents assigning a rating of 4 or 5. Similarly, trust in the protection of financial data was also high (M = 3.94), with 69% of respondents giving a score of 4 or 5. Respondents also expressed trust in the protection of personal data (M = 3.89) and in measures to prevent identity theft and embezzlement (M = 3.91), although these items had a slightly higher proportion of neutral or lower ratings. Overall, the findings suggest that users of online banking services place the greatest trust in the security of transactions, while trust in identity theft prevention and personal data protection is slightly lower but remains positive.

Table 5 - Descriptive Statistics Regarding User Trust in Online Banking Services

No.	Statements	M	SD	Marks	N	%
1.	I trust that the bank ensures the security of my personal data.	3.89	1.173	1	13	6.5
				2	9	4.5
				3	44	22.0
				4	55	27.5
				5	79	39.5
2.	I trust that the bank ensures the security of my financial data.	3.94	1.156	1	12	6.0
				2	9	4.5
				3	41	20.5
				4	56	28.0
				5	82	41.0
3.	I trust that the bank ensures the safety of my transactions.	4.08	1.070	1	8	4.0
				2	10	5.0
				3	29	14.5
				4	65	32.5
				5	88	44.0
4.	I trust that the bank effectively safeguards against identity theft and embezzlement.	3.91	1.150	1	10	5.0
				2	16	8.0
				3	34	17.0
				4	63	31.5
				5	77	38.5

Source: Authors

Table 6 presents descriptive statistics for the level of expectation fulfillment scale. Overall, respondents reported prominent levels of satisfaction with the fulfillment of expectations regarding online banking services. The highest mean score was observed for the statement concerning service execution time (M = 4.28; SD = 0.931), with 82.5% of respondents assigning a rating of 4 or 5. For the type of online banking services, the mean score was M = 4.12, with 77% of respondents providing positive ratings (4 or 5). The lowest mean score was recorded for problem resolution during the use of online banking services (M = 4.04; SD = 1.067); however, more than 73% of respondents still indicated a high level of satisfaction (ratings 4 or 5). These findings suggest that users are most satisfied with the timeliness of service execution, while problem-solving efficiency, although slightly lower, remains positive.

Table 6 - Descriptive Statistics Regarding the Fulfillment of Customers' Expectations

No.	Statements	M	SD	Marks	N	%
1.	All aspects of the online banking services, as specified, are delivered satisfactorily.	4.12	0.975	1	4	2.0
				2	9	4.5
				3	33	16.5
				4	67	33.5
				5	87	43.5
2.	All services were delivered according to the specified execution times.	4.28	0.931	1	3	1.5
				2	8	4.0
				3	24	12.0
				4	60	30.0
				5	105	52.5
3.	All problems arising during the use of online banking services were addressed quickly.	4.04	1.067	1	7	3.5
				2	11	5.5
				3	35	17.5
				4	62	31.0
				5	85	42.5

Source: Authors

Results of Statistical Tests and Discussion

Non-parametric statistical tests, specifically the Mann-Whitney U and Kruskal-Wallis H tests, were used to examine potential statistically significant differences in respondents' responses. Table 7 presents the results of the Mann-Whitney U test for differences based on respondents' gender.

Table 7 - Results of the Mann-Whitney Test (Sex Structure of Respondents)

Scale	Answer	N	M	Md	Mann-Whitney	Z	Asymp. Sig.
Level of trust	Male	74	3.80	4.0	3,936.500	-1.877	0.060
	Female	126	4.04	4.25			
Level of expectation fulfillment	Male	74	4.04	4.33	4,080.000	-1.507	0.132
	Female	126	4.21	4.33			

Source: Authors

For the Level of trust scale, the Mann-Whitney U test results indicate a mean value of 3.80 for men and 4.04 for women, with corresponding medians of 4.00 and 4.25. The Mann-Whitney Z value was -1.877, and the asymptotic significance (p-value) was 0.060. As the p-value exceeds the conventional threshold of 0.05, these results suggest that there is no statistically significant difference between male and female respondents in terms of their level of trust when using online banking services. For the Level of expectation fulfillment scale, the mean values were 4.04 for men and 4.21 for women, with identical medians of 4.33. The Mann-Whitney Z value was -1.507, and the asymptotic significance (p-value) was 0.132, indicating no significant gender-based differences in the level of expectation fulfillment. Table 8 presents the results of the Kruskal-Wallis test regarding the age structure of the respondents.

Table 8 - Results of the Kruskal-Wallis Test (Age Structure of Respondents)

Scale	Answer	N	M	Md	Kruskal-Wallis	df	Asymp. Sig.
Level of trust	From 18 to 24	34	4.32	500	8.349	4	0.080
	From 25 to 34	24	3.78	4.00			
	From 35 to 44	80	3.87	4.00			
	From 45 to 54	48	3.92	4.00			
	Above 54 years	414	3.89	4.50			
Level of expectation fulfillment	From 18 to 24	34	4.48	4.67	6.038	4	0.196
	From 25 to 34	24	4.10	4.00			
	From 35 to 44	80	4.13	4.33			
	From 45 to 54	48	4.08	4.33			
	Above 54 years	14	3.71	4.00			

Source: Authors

For the Level of trust scale, the Kruskal-Wallis test yielded a statistic of 8.349, with an asymptotic significance (p-value) of 0.080. As the p-value exceeds the conventional threshold of 0.05, no statistically significant differences were observed in the level of trust toward online banking services across different age groups. Although respondents aged 18 to 24 reported the highest mean value (4.32), this difference was not statistically significant, indicating that all age groups exhibit a comparable level of trust. For the Level of expectation fulfillment scale, the Kruskal-Wallis test statistic was 6.038, with a p-value of 0.196, demonstrating no statistically significant differences in expectation fulfillment across age groups.
Table 9 shows the results of the Kruskal-Wallis test regarding the level of education of the respondents.

Table 9 - Results of the Kruskal-Wallis Test (Educational Level of Respondents)

Scale	Answer	N	M	Md	Kruskal-Wallis	df	Asymp. Sig.
Level of trust	Secondary school	34	3.60	4.00	2.483	3	0.478
	College	30	4.12	4.50			
	University (undergraduate or master's studies)	101	4.07	4.00			
	University (doctoral studies)	35	3.79	4.00			
Level of expectation fulfillment	Secondary school	34	3.93	4.00	2.400	3	0.494
	College	30	4.32	4.67			
	University (undergraduate or master's studies)	101	4.18	4.33			
	University (doctoral studies)	35	4.11	4.33			

Source: Authors

For the Level of trust scale, the Kruskal-Wallis test yielded a statistic of 2.483, with a p-value of 0.478. As the p-value exceeds the conventional significance threshold of 0.05, there is no statistically significant difference in the perceived level of trust among respondents with different educational backgrounds. Although respondents with higher education reported the highest mean value (4.50), this difference was not statistically significant, suggesting that perceptions of trust in online banking services are similar across educational levels. For the Level of expectation fulfillment scale, the Kruskal-Wallis test statistic was 2.400, with a p-value of 0.494, indicating no statistically significant differences in the fulfillment of expectations among respondents with varying educational backgrounds.
Table 10 summarizes the results of the non-parametric Mann-Whitney and Kruskal-Wallis tests, which were applied to examine differences in the Level of trust and Level of expectation fulfillment among online banking users across gender, age, and educational groups. Based on the obtained p-values, all three hypotheses were confirmed, indicating that respondents' demographic characteristics do not have a statistically significant effect on the observed variables.

Table 10 - Presentation of the Results of the Tested Hypotheses

Hypothesis	Test	Scale	Statistical result	p-value	Decision
H1: There is no statistically significant difference in the level of trust or in the perception of expectation fulfillment in online banking services between respondents of different genders.	Mann-Whitney	Trust	Z = -1.877	0.060	Accepted
		Expectation fulfillment	Z = -1.507	0.132	
H2: There is no statistically significant difference in the level of trust or in the perception of expectation fulfillment in online banking services between respondents of different age groups.	Kruskal-Wallis	Trust	H = 8.349 df = 4	0.080	Accepted
		Expectation fulfillment	H = 6.038 df = 4	0.196	
H3: There is no statistically significant difference in the level of trust or in the perception of expectation fulfillment in online banking services between respondents with different educational backgrounds.	Kruskal-Wallis	Trust	H = 2.483 df = 3	0.478	Accepted
		Expectation fulfillment	H = 2.400 df = 3	0.494	

Source: Authors

Conclusion

The aim of this study was to examine whether statistically significant differences exist in the level of trust and level of expectation fulfillment when using online banking services among users of different gender, age, and educational levels in Serbia. Data were collected through a structured online questionnaire, and the results were analyzed using non-parametric Mann-Whitney and Kruskal-Wallis tests.

The analysis revealed no significant differences in trust or expectation fulfillment across any of the demographic categories examined. All initial hypotheses were confirmed, indicating that users of varying gender, age, and educational levels exhibit similar attitudes toward online banking services.

This study has several implications for both theory and practice. First, it confirms previous research findings that demographic factors are not decisive in shaping trust and satisfaction among online banking users. This contributes to a better understanding of the universal factors that influence user experience in digital banking and provides a foundation for further research in this field. From a practical perspective, banks and providers of digital financial services can utilize these findings to develop and enhance their online offerings by focusing on the quality of both functional and relational service aspects - such as security, ease of use, transparency, and reliability - without the need to tailor services based on demographic segments. By prioritizing these universal factors, institutions can effectively increase user trust and satisfaction.

The present study has several limitations that should be considered when interpreting the results. First, the sample consisted of 200 users of online banking in Serbia, which represents a small proportion of the overall population of digital banking users; therefore, the findings may not be fully generalizable. Second, the distribution of the questionnaire via social networks, thematic forums, and e-mail may have introduced selection bias, as participants are likely to be more active digital users and may possess higher digital literacy and greater trust in technology than the average user. Third, the data were collected using a questionnaire, which relies on respondents' subjective perceptions and may be influenced by socially desirable responses. Fourth, the research was conducted between August 2024 and February 2025, so the results reflect user behavior during this period and may not represent long-term trends. Despite these limitations, the study provides valuable insights into the level of trust and expectation fulfillment among online banking users in Serbia. These findings can serve as a foundation for further research and offer practical guidance for banks seeking to improve their digital services.

For future research, it is recommended to include a larger and more diverse sample of online banking users from Serbia or other countries, which would allow for greater generalizability of results and enable cross-national comparisons. Additionally, incorporating other potentially influential factors - such as prior experience with digital services, the level of digital literacy, and the types of banking products used - could provide a deeper understanding of the dynamics of trust and satisfaction. Future studies could also benefit from employing a mixed-methods approach, combining quantitative techniques with qualitative methods, such as interviews and focus groups, to gain more nuanced insights into the specific challenges and preferences of users regarding online banking services.

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