

UTICAJ PANDEMIJE COVID - 19 NA DIGITALIZACIJU BANKARSKOG SEKTORA SRBIJE

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Apstrakt

Ovaj rad sagledava posledice COVID -19 na digitalizaciju bankarskog sektora, kako bi se identifikovali izazovi i prilike bankarskog sektora Srbije. Istraživanje se sastoji od dva dela. U prvom delu su korišćeni statistički podaci regulatornih i nadzornih tela, a drugi deo se odnosi na terenska istraživanja, koja se baziraju na anketi. Obrada podataka je kreirana na softveru IBM SPSS Statistics. Anketni upitnici su prikupljeni u periodu od januara do maja meseca 2022. godine. Za analizu su prihvaćeni odgovori 174 ispitanika, klijenata banaka. Upitnik je sastavljen pomoću Likertove petostepene skale. Ovakav uzorak možda nije sasvim reprezentativan, ali je u svakom slučaju dovoljno informativan, jer je moguće izvesti zaključak o doprinos svake promenljive razvoju digitalnog bankarstva. Za analiziranje veze između metričke promenljive i više nezavisnih promenljivih primenjujemo višestruku ili multiplu regresiju. Naše procene otkrivaju uticaj digitalnih proizvoda i usluga na razvoj digitalnog bankarstva. U istraživanju treba utvrditi i specifične ciljeve, konkretno koji procenat ispitanika je upoznat sa uslugama digitalnog bankarstva. Takođe, u daljoj analizi treba proveriti tvrđenje da je proporcija ispitanika koji imaju negativan stav prema digitalnom bankarstvu manja od 45%. U ovom istraživanju korišćena je regresiona analiza, kao deo analize koja se koristi za formiranje digitalne zrelosti klijenata u Srbiji. Za potrebe istraživanja poželjnih vrsta bankarskih proizvoda i usluga primenjena je dvofaktorska analiza. Analiza podataka pomoću SPSS verzija 20 za Windows pokazuje da: Postoji pozitivan i značajan uticaj digitalnih bankarskih proizvoda na zadovoljstvo klijenata banke. Analizirani modeli za istraživanje preferencija klijenta ukazuju da menadžerski pristup banke podrazumeva stvarno poznavanje i praćenje želja i preferencija svojih klijenata, kao i adekvatne ključne prioritete

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koje menadžeri bankarske industrije treba da pruže. Rezultati istraživanja pokazuju da digitalna banka može biti jedinstveni odgovor na sve izazove, kao i najefikasnije sredstvo za zadržavanje i privlačenje klijenata.

Ključne reči: *COVID-19 pandemic, digitalna zrelost, digitalizacija bankarstva.*

JEL: *G21, O32.*

Uvod

Pandemija COVID – 19, osim zdravstvene krize, uzrokovala je promene u globalnoj ekonomiji, ali i način poslovanja u svim zemljama. Bankarski sistem je najviše pogodjen izazovima i rizicima koje je izazvala pandemija. Preoblikovano je finansijsko poslovanje. Ekonomska teorija i njena primena u praksi, pokazuju povezanost finansijskog sistema sa realnom ekonomijom (Ercegovic, 2002). Put digitalne transformacije, je put izazova, tako da je neophodan balans između tehnologije, bankarske ponude i finansijskih potreba klijenata. Adekvatnom metodologijom istraživanja i istraživačkim alatima moguće je predvideti buduće ponašanje klijenta i odgovoriti adekvatnim digitalnim rešenjima. Digitalno bankarstvo predstavlja platformu za rešavanje jednostavnih finansijskih transakcija koje će u budućnosti potisnuti tradicionalni poslovni odnos između banke i klijenta.

Bankarski sistem Republike Srbije suočen je sa velikim promenama, a trajanje i ozbiljnost posledica ekonomske krize, kao i brzinu oporavka, veoma je teško sagledati. Stoga je na bankarskim menadžerima naporan zadatak da ponovo planiraju scenarije i prilagodjavaju se novonastaloj situaciji. Analiza situacije i adekvatno upravljanje izazovima i prilikama ključna je za kratkoročni opstanak i dugoročno zdravlje bankarske industrije. Neki autori smatraju da je ovakav stav presudan za finansijske organizacije (Radić, et al., 2020). U periodu krize stvaraju se moćni bankarski menadžeri, koji veoma uspešno mogu odgovoriti na sve nastale izazove i iskoristiti prilike koje se nude. Iskustvo pokazuje da lideri treba da donose odluke danas kako bi očekivali pobjedu u budućnosti. Na osnovu pogrešno donetih odluka razvili su se modeli predviđanja kriza i ponašanje bankarskog sistema na različite uticaje iz okoline.

U uslovima pandemije i iskustvo klijenata se sve više diferencira, tako da bankarski menadžeri sugerišu promenu dosadašnjih poslovnih sadržaja kako bi zadovoljile finansijske potrebe svojih klijenata i izdržali pritisak sve rastuće konkurencije kroz nove modele bankarskih aktivnosti. Savremena banka mora biti prisutna na tržištu onako kako korisnici ili klijenti od nje očekuju. Izazove sa kojima se suočava moderna bankarska industrija u velikoj meri određuju finansijske tehnologije, bankarstvo u senci i inovacije u finansijama na međunarodnoj sceni. Obrasci po kojima bankarski sektor posluje su se menjali i pre izbijanja pandemije pa tako imamo različite postojeće tehnološke inovacije u primeni. Transformacija bankarskih aktivnosti postaje neophodnost, a posebno

digitalna transformacija, kao dominantan makrotrend. Dominantna je težnja da se ljudi povežu, uprkos fizičkoj distanci, tako da su beskonačna rešenja sastavni deo mera za smanjenje stope zaraze, kao siguran i bezbedan način obavljanja transakcija. Međutim, rast bezgotovinskih transakcija uslovio je nove izazove za bankarsku industriju po pitanju prevara.

Pandemija COVID-19 stvorila je savršen ambijent za sajber kriminal u uslovima pandemije, medju kojima su najviše pogodjeni digitalno neiskusni klijenti i oni klijenti sa tradicionalnim uverenjima, kojima je neophodna kontinuirana personalizovana usluga. Prema Financial Times, procenjuje se da je više od polovine pozajmljenih 43 milijarde funti izgubljeno zbog lažnih zahteva. (Thomas, et al. 2020). Ključna uloga bankarske industrije jeste da zauzme holistički pristup digitalnim iskustvima. U uslovima pandemije trend digitalne transformacije veoma je aktuelan, ali rešavanje problema digitalnog jaza postaje sve dominantnije. U primeni je niz informacionih tehnologija koje mogu pomoći procesu digitalne transformacije bankarskog sektora i time pomoći i menadžerima i klijentima bankarskog sektora (integracija veštačke inteligencije; blockchain tehnologije; internet of things; cloud computing) i druga napredna rešenja kako bi bolje odgovorila na promene u načinu obavljanja poslovnih aktivnosti.

Ciljevi studije

Prvi i osnovni cilj rada je analizirati strukturu bankarskog sektora Republike Srbije i objasniti njegovu transformaciju u kratkom roku u uslovima pandemije. Kao nastavak ovog cilja nameće se dodatna analiza, ispitivanje stavova klijenata o bankarskoj ponudi. Osnovni cilj ovog rada je istraživanje uticaja pandemije COVID-19 na bankarsko poslovanje. Predmet istraživanja karakteriše aktuelnost i važnost problema, značajna za industriju bankarstva, kako sa makroekonomskog aspekta (efikasna alokacija resursa na finansijskom tržištu) i mikroekonomskog aspekta (otpuštanje zaposlenih) tako i sa psihološkog aspekta (rizik i povećanje stresa usled zdravstvene i finansijske krize). Cilj istraživanja je da se utvrde posledice pandemije na bankarski sektor Srbije, kao i da se definišu bankarski proizvodi i usluge u periodu pandemije i istaži zadovoljstvo klijenta banke tom ponudom. Mnogi faktori utiču na zadovoljstvo klijenata, a neki od njih su: cena, pouzdanost, dostupnost, lakoća primene, ljubaznost servisnog osoblja i dr. Imajući u vidu ključna pitanja sa kojima će se bankarski menadžeri suočavati u budućem periodu sa dinamikom stalne transformacije u cilju fokusiranja na finansijske potrebe klijenta, povećanja profitabilnosti, u granicama tolerancije na rizik, s jedne strane, kao i motivaciju klijenata u izboru bankarske ponude sa druge strane, iniciralo je izbor teme i fokusiralo predmet i cilj istraživanja ovog rada.

Prednost ovog istraživanja je u otkrivanju ponašanja zasnovano na uzajamnoj razmeni ideja menadžmenta sa klijentima, kako bi se kontinuirano poboljšali i osnažili ovi odnosi. Ponašanje bankarskih klijenata gravitira od konzervatizma i

averzije prema digitalnim kanalima prodaje u periodu pre pandemije pa sve do sve veće motivisanosti za upotrebu digitalnih bankarskih proizvoda za vreme pandemije. Istovremeno uočen je oprezan motiv klijenata zbog sajber kriminala. Dobijeni podaci daju jasnu sliku: postoje klijenti koji su spremni i traže digitalna rešenja odmah, a bankarski menadžeri treba da ih implementiraju što hitnije uz sve veću zaštitu od rizika sajber kriminala i postoji druga grupa tradicionalnih klijenata koji, uprkos korona virusu daju prednost odlasku u banku. Ovim istraživanjem dajemo dvostruki doprinos literaturi. Prvo, ispitujemo uticaj pandemije na digitalizaciju bankarskog poslovanja, kroz multikanalni pristup, odnosno izbor klijenta da stupi u kontakt sa bankom u bilo koje vreme, bilo kada i sa bilo kog uređjaja, digitalne procedure, elektronsko upravljanje odnosa sa klijentima. Drugo, mi predlažemo poželjne karakteristike bankarske ponude u procesu digitalne transformacije. Ispitivanje zadovoljstva klijenata veoma je važan parametar koji se mora uzeti u obzir pri formiranju bankarske ponude. Na osnovu ovog istraživanja moguće je izvesti zaključak o funkcionisanju bankarskog sektora u budućnosti, s obzirom da postoje različiti izazovi u periodu pandemije. Digitalna transformacija bankarskog poslovanja više se ne postavlja kao mogućnost, nego kao nužnost. Ono što je za većinu banaka u predpandemijskom periodu bila stvar izbora sada, za vreme pandemije postala je obaveza za sve učesnike na finansijskom tržištu.

Pregled literature

Predviđeno je, da ovo istraživanje bude realizovano u dve faze, teorijska istraživanja i praktična provera. Istraživanje izvora informacija o uticaju pandemije na bankarski sektor ukazuje zanemarljivo mali broj odrednica na ovu tematiku. (oko 15.900 rezultata). Pretraživanjem izvora na engleskom jeziku dobijeno je mnogo više izvora (48.500.000 rezultata). Ovi pomenuti rezultati mogu se prihvatiti kao grubi pokazatelji otvorenosti i aktuelnosti teme istraživanja. Efekat pandemije na bankarski sektor uključuje evaluacije uticaja koje su deo šireg programa kreiranja politike zasnovane na dokazima (Gertler, 2011). Nekoliko studija je otkrilo negativne efekte pandemije, kroz povećanu neefikasnost, promene cene fjučersa, promene cene nafte i sve veće nestabilnosti tržišta (Narayan, 2020; Halder et al., 2021). Saglasni smo s mišljenjima autora, da je pandemija COVID-19 ostavila velike posledice na globalnu ekonomiju. Imajući u vidu da je u prošloj 2021. godini, svetski BDP opao za oko 6%, ova se kriza izazvana pandemijom COVID-19 može upoređivati sa najvećim ekonomskim krizama svih vremena poput one iz 1929. godine, kao i sa onom izazvanom naftnim šokom sedamdesetih godina prošlog veka (Ramasamy, 2020). U periodu od 1970. do 2007. godine, desile su se 394 finansijske krize, među kojima su najčešće 207 valutne krize, zatim 124 bankarske krize i 63 savremene dužničke krize (Racickas, et al., 2012). Kriza izazvana pandemijom COVID-19, porastom sistemskog rizika izazvala je rast neneplativih kredita širom sveta (Rizwan, et. al.

2012). Porast nenaplativih kredita treba posmatrati u skladu sa ostalim nepovoljnim makroekonomskim pokazateljima. Autori (Ari, 2021) uočavaju da se u periodu pandemije zajmoprimci i preduzeća sve više suočavaju se sa gubitkom posla, usporenom prodajom i padom profita. Realno je očekivanje da će klijenti tražiti finansijsku pomoć, a regulatori podsticati banke da im pomognu. Same banke imaju svoj plan zaštite klijenata od korona virusa, preporukom rada od kuće, a klijentima dostupnost obavljanja bankarskih aktivnosti bez fizičke interakcije.

Takodje, Svetska zdravstvena organizacija (WHO, 2020) savetovala je ljude da koriste beskontaktno plaćanje koliko god je to moguće, jer se novčanice smatraju za potencijalni nosilac koronavirusa. Iz tih razloga fizičko bankarstvo postaje sve manje privlačno, ne samo za stariju i ugorženu populaciju nego i mladju. Prema istraživanju Pwc's iz 2021. godine, o navikama klijenata, njihovim preferencijama, zaduživanju, plaćanju, osiguranju i investiranju, na osnovu 6000 anketiranih, uočen je porast broja klijenata za digitalnim bankarskim uslugama, dok 32 odsto izbegavaju odlazak u fizičko filijalu. Banke su uspešno odgovorile na izazove u pandemijekom periodu. Po mišljenju mnogih autora digitalizacija dovodi do smanjenja i do 25% troškova, što direktno dovodi do povećanja prihoda u segmentu kratkoročnog i gotovinskog kreditiranja. Pandemija podstiče digitalno bankarstvo, on-line bankarstvo, telefonsko bankarstvo i usluge call centra. Dok korona virus čini potrebu za uslugama digitalnog bankarstva hitnijom, sve veća preferencija potrošača za digitalizacijom nije ništa novo. Prema nedavnom istraživanju kompanije Lightico, 56% potrošača bankarstva je izjavilo da su preusmereni sa onlajn bankarskih interakcija na fizičke lokacije. Čak 48% ispitanih kaže, da je od njih zatraženo da odštampaju, potpišu i pošalju papire e-poštom dok bankiraju na mreži (Lightico, 2021). Da bi pružanje digitalizovanih bankarskih usluga obezbedilo uspeh na finansijskom tržištu, AtKearney, u svom istraživanju, sugerise da banke treba da primenjuju elektronsku bazu podataka i interakcije sa klijentima putem društvenih mreža, uz niže troškove (AtKearney, 2014). Banke mogu da dodju do podataka na društvenim mrežama o stavovima o stavovima korisnika o novim bankarskim proizvodima i uslugama, kvalitetu korisničkog servisa, problemima koji su prisutni. Bankarska industrija u SAD je u velikoj trci za digitalnim naoružanjem. Za mnoge banke, digitalni kanali distribucije svojih proizvoda i usluga postali su važniji od filijala i bankomata. Banke u razvijenim zemljama smatraju da ulaganja u digitalnu tehnologiju donose veće koristi od zadovoljstva svojih klijenata. Na primer, Bank of America prima više depozita sa svog mobilnog kanala nego iz filijala (Rogers, 2018).

Pregled literature pokazuje da je digitalna transformacije ubrzana u proseku za šest godina (Twilio, 2020). Istraživanje konsultantske kompanije pokazuje da su klijenti banaka povećali upotrebu digitalnih bankarskih usluga za 50% od početka pandemije, a 71% ih nedeljno koristi kanale digitalnog bankarstva (KPMG, 2020). Sprovedeno istraživanje na Kosovu (Božović, 2016.) ukazuje da digitalni kanali

distribucije bankarske ponude još uvek nije zastupljeno u meri u kojoj bi trebalo, ali su zainteresovani da banke digitalizuju svoje usluge u većem obimu. Transformacija bankarskog sistema treba da bude usmerena prema klijentu (Jaubert, 2014). Uočena su mnoga korisna rešenja i preporuke za obim digitalne bankarske ponude u periodu pandemije, ali ukazano je i na rizik od sajber kriminala tokom pandemije. Evropsko telo za sistemski rizik je u svom dokumentu "Sistemski sajber rizik" (ESRB, 2020.) predstavilo konceptualni model razvoja i materijalizacije sajber rizika, kao i faktore nastanka sistemske krize usled sajber incidenta. Imajući u vidu da je od perioda pandemije posrednička uloga banaka smanjena, bankarski sektor posluje u uslovima većeg rizika zbog neizvesnosti tokom pandemije. Provajderi usluga digitalnog bankarstva i programeri aplikacija, mogu da iskoriste naučna istraživanja za poboljšanje tržišnog udela konceptom personalizacije usluga. (Krishanan, et al. 2016).

U Srbiji, centralna banka donela je odluku da u ambijentu ponovo pooštrene zdravstvene situacije deluje ekonomski proaktivno i preventivno. Banke su reagovala preduzimajući mere za nastavak poslovanja, vodeći računa o nesmetanom odvijanju osnovnih funkcija banke, ali i očuvanju zdravlja svojih zaposlenih. Istraživanje autora (Terkan, Ucar, 2020; NBS, 2021.) otvara novi pogled učenja na daljinu, jer većina ispitanika ima negativno mišljenje u pogledu efikasnosti i prakse učenja na daljinu. Banke su ubrzano aktivirale opcije rada od kuće za najveći broj zaposlenih, saradnja i komunikacija sa strankama odvija se, elektronski i preko video-konferencijskih poziva, dok su sa druge strane, klijenti banaka ohrabrivani da koriste digitalne kanale komunikacije, uključujući i beskontaktna plaćanja (mobilnim telefonom, putem računara, platnim karticama) uključujući i plaćanja nedavno uvedenim QR kodom na prodajnim mestima, za pitanja, konsultacije ili slanje dokumentacije bankama preporučuje se korišćenje elektronske pošte, društvenih mreža i usluga bankarskih kontakt centara. Pregledom relevantne literature i konsultovanjem zvaničnih podataka, analizom se sagledavaju faktori koji mogu doprineti da sektor bankarstva bude dovoljno izdržljiv nakon pandemije Covid -19, da finansijski sistem iskoristi trenutnu kriznu situaciju i poprimi održiviji oblik poslovanja. Bruto nenaplativih potraživanja (NLP) pokazatelj i dalje je ispod pretkriznog nivoa i u junu je iznosio 3,6%, što ukazuje na to da su mere Narodne banke Srbije i Vlade bile pravovremene, te da su sprečile veći negativan efekat po privredu i stanovništvo, a time i po finansijsku stabilnost. Takođe, u poređenju s krajem 2020. godine, to učešće je smanjeno (za 0,1 p.p.), pri čemu je kod sektora privrede 17% došlo do smanjenja za 0,2 p.p., na 2,9% u junu, a kod stanovništva 18% do rasta za 0,4 p.p., na 4,0% u junu (NBS, 2021). Narodna banka Srbije je još u 2018. godine, uvela sistem za instant plaćanja, zahvaljujući kome su plaćanja dostupna građanima i privredi 24 časa dnevno, sedam dana u nedelji, tokom cele godine. Plaćanje je moguće sa svih najčešće korišćenih savremenih komunikacionih uređaja, u bilo

koje vreme i s bilo kog mesta, a novac se prenosi za 1,2 sekunde (NBS, 2018). Efekat koji pandemija može imati na finansijski sistem zavisi od: a) daljeg širenja virusa i njegovog uticaja na ekonomska kretanja, b) reakcije monetarne i fiskalne politike na tržišne šokove i c) regulatorne reakcije na moguće urušavanje bankarskog sistema (Beck, 2020).

Metodologija istraživanja

Metodologija istraživanja usklađena je sa ciljevima i zadacima. Istraživanje se sastoji od dva dela. Prvi deo se odnosi na zvanične statističke podatke za Srbiju, a drugi deo obuhvata empirijska istraživanja.

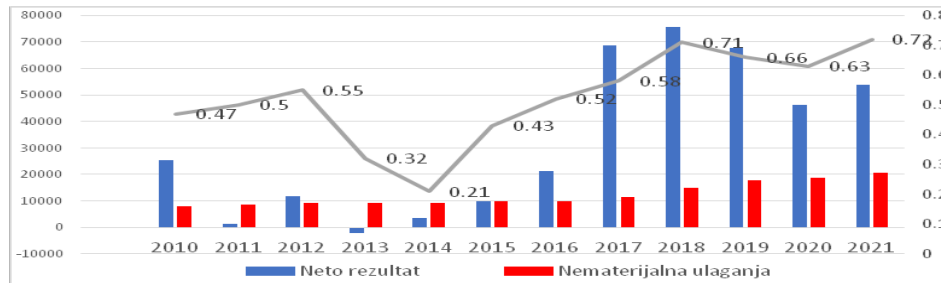
Posledice COVID-19 na bankarski sektor Srbije

U prvom delu su korišćenji statistički podaci NBS, Republički zavod za statistiku. Analizom ovih podataka sagledavamo dubinu posledica COVID-19 na bankarski sektor Srbije.

Centralna banka Srbije bila je jedna od prvih centralnih banaka u Evropi koja je na krizu izazvanu pandemijom odgovorila pravovremeno i sveobuhvatno nizom sprovedenih mera fiskalne, monetarne i makroprudencijalne politike, koje su delovale u pravcu jačanja stabilnosti finansijskog sistema Republike Srbije. Zvanični podaci pokazuju da u Srbiji 78.4% populacije svakodnevno koristi internet, a više od 50 odsto njih pristupa internetu preko mobilnih uređaja. Takođe, broj korisnika mobilnog bankarstva povećan je i do 20 puta u poslednjih šest godina. Prema zvaničnim podacima, mobilno bankarstvo koristi više od 2.2 miliona ljudi u Srbiji (NBS, 2022). Prva banka u Srbiji koja je uvela mobilno bankarstvo kroz aplikacije za pametne telefone je Banca Intesa, a u svetu to je "JP Morgan Chase Bank" iz SAD (Sanader, 2014.).

Sledeći, logički korak je analiza nematerijalnih ulaganja. Radi se o jedino javno objavljenim podacima o ulaganju u IT tehnologije, inovacijama i digitalizacijom, kao i upravljanje rizicima, ali su podaci ograničeni jer se radi o kumulativnim podacima o softverima i licencama. Rezultati istraživanja za period od 2010. do 2021. predstavljeni su grafički (*Slika 1.*).

Slika 1. Korelacioni koeficijent nematerijalnih ulaganja i neto rezultata za bankarski sektor za period od 2010. do 2021.



Izvor: Proračun autora na osnovu podataka Narodne banke Srbije.

Korelacija između nematerijalnih ulaganja i neto rezultata za bankarski sektor Srbije je 0.74, tj. srednje jaka korelaciona veza i pozitivna. Najjača korelaciona veza je ostvarena u 2018. godini. Prema uporednim podacima iz narednog grafikona, evidentno je da postoji veza između nematerijalnih investicija i neto rezultata. Međutim, koeficijent korelacije opada uprkos uvećanim nematerijalnim ulaganjima. To samo potvrđuje uticaj i drugih faktora koji utiču i opterećuju neto rezultat. Zabeležen je i gubitak u 2013. godini koji je nastao kao posledica oduzimanja dozvole za rad dvema bankama usled visokih rashoda otpisa plasmana. Klijenti su zbog epidemije bili prinuđeni da se okrenu elektronskom i mobilnom bankarstvu, tako da je uvođenje IPS platnog sistema pre nastanka epidemije dodatno doprineo popularizaciji istog. 27. februara 2020. godine uvedeno je instant plaćanje QR kodom na prodajnim mestima koju su sve izabrane banke implementirale u svoje m-banking aplikacije.

Empirijsko istraživanje stavova klijenata o bankarskoj ponudi u periodu pandemije

U drugom delu sprovedeno je kvantitativno istraživanje stavova klijenata o bankarskoj ponudi u periodu pandemije. Za utvrđivanje zadovoljstva klijenata bankarskom ponudom u doba pandemije nije moguće direktno merenje, već indirektno. Kvantitativno istraživanje sprovedeno je metodom anketiranja i intervjuisanja na populaciji koji su klijenti banke na teritoriji centralne Srbije. Ovaj rad se zasniva na primeni primarnih i sekundarnih podataka. Primarni podaci su prikupljeni putem strukturiranih upitnika. Prikupljanje podataka za ovo istraživanje sprovedeno je u periodu od januara do maja 2022. godine. Istraživanje je sprovedeno među istom grupom ljudi, tj. istraživači su sproveli neformalne intervjue i anketirali isključivo klijenate bankarskog sektora Srbije.

Broj ispitanika bio je 200, a od toga je 175 važećih anketnih upitnika, koji su korišćeni za izračunavanje važnosti parametra i motiva za kupovinu. Radi zaštite poverljivosti učesnika, podaci su šifrovani u radu. U istraživanju je sprovedena prikladna skala koju primenjuju i drugi istraživači u iste svrhe. Pitanja su

zatvorenog tipa, sa unapred definisanim odgovorima. Obrada podataka je kreirana primenom statističkog računarskog paketa za društvene nauke SPSS programa.

Upitnik se sastoji od dva dela. Prvi deo upitnika odnosi se na demografske karakteristike (Set demografskih pitanja obuhvata: pol, starosnu grupu, obrazovanje ispitanika, radni staž), a drugi deo pitanja ima za cilj da otvori značajna pitanja u vezi sa mobilnim bankarstvom, kako bi dobijeni rezultati doprineli boljem sagledavanju i oceni postojećeg stanja i ponudi digitalnih usluga od strane bankarskih institucija. Upitnik u radu je razvijen pomoću Likertove petostepene skale. Pitanja u anketnom upitniku struktuirana su u dva dela, sa odgovorima iskazanim ocenama od 1 do 5 (1-uopšte se ne slažem, 2. ne slažem se, 3- nemam stav, 4 - slažem se i 5- u potpunosti se slažem) Pitanja su formulisana tako da ispituju stavove klijenata o bankarskoj ponudi i koji utiču na motivisanost kupovine bankarskih proizvoda i zadovoljstvo klijenata. (Gliem, 2003).

Rezultati istraživanja

Za statističku analizu bilo je dostupno ukupno 174 upitnika (N=174). Među anketiranim bilo je 56 osoba ženskog pola (97%) i 77 osoba muškog pola (44%). Među njima anketirano je 79 osoba starosti do 35 godina (45%), 53 osobe starosti od 35 do 45 godina (31%) i 42 osoba iznad 45 godina (24%). Podaci nam pokazuju da među klijentima dominira mlada populacija. Što se stepena obrazovanja tiče, dominiraju zaposleni srednjeg stepena obrazovanja 108 osobe (62%), niže obrazovanje 9 osoba (5%) i 57 osoba sa završenom višom školom ili fakultetom (33%). Sa aspekta dužine radnog staža dominiraju zaposleni sa minulim stažom do 10 godina, 72 osobe (41%), zatim slede 54 osobe sa stažom do 20 godina (31%) i 48 osoba sa stažom preko 20 godina (28%).

Nakon ispitivanja demografskih karakteristika, usledilo je ispitivanje motivacionih stavova koje su ispitanici rangirali prema njihovom stepenu važnosti za odabir banke. Na osnovu testa homogenosti varijanse utvrđujemo kod kojih pogodnosti nije prekršena pretpostavka o homogenosti varijanse (*Tabela 1.*). Najpoželjnija pogodnost je: cenovna pogodnost bankarske ponude (79%), Korisničko iskustvo (82%) i ugled i imidž banke (79%), to znači da postoji statistički značajna razlika između srednjih vrednosti konkretne pogodnosti. Najniže rangirana pogodnost je lokacija banke (29%).

Tabela 1. Test homogenosti varijanse

Najvažniji motivi za izbor banke?	Levene Statistic	df1	df2	Sig.
Pozitivna iskustva bliskih osoba	.565	2	45	.419
Korisničko iskustvo	5.509	2	45	.006
Lokacija banke	.369	2	45	.608
Cenovna pogodnost	7.532	2	45	.000
Ugled i imidž banke	4.101	2	45	.013

Izvor: Proračun autora primenom programa IBM SPSS Statistics.

Od 174 ispitanika, najviše ispitanika (59%) koristi mobilno bankarstvo, telefonski poziv koristi 4 %, a fizički odlazak u banku obavlja čak 37 %. Detaljnom segmentacijom odgovora najviše ispitanika (42%) koristi sledeće bankarske proizvode (plaćanje računa, kalkulator kurseva i uvid u trajne naloge. Rezultati razmatranja frekvencije pokazuju da klijenti najviše koriste mobilni telefon (89%), dominantna podrška je vodič kroz aplikaciju 52%, skoro svakodnevno korišćenje Interneta (79%), dok je najmanja fizička posećenost filijali banke, jednom mesečno 37%. S aspekta istraživanja lojalnosti banci, najviše ispitanika ima definisan stav oko promene banke 73% ukoliko ona ne ispuni njihova očekivanja.

Sledi set pitanja čija je namena da ispitaju važnost različitih činioca u pandemijskom periodu. Ispitanici su dobili mogućnost ocenjivanja od 1-5, gde 1-uopšte nisam zadovoljan, a 5 veoma sam zadovoljan. (Tabela 2.).

Tabela 2. Ispitivanje važnosti činilaca u pandemijskom periodu

Red. broj	Istraživačko pitanje	O C E N A				
		1	2	3	4	5
1.	Da li ste zadovoljni cenom bankarske ponude?	6%	26%	29%	32%	7%
2.	Da li smatrate da ste zaštićeni od sajber kriminala	10%	19%	30%	32%	9%
3.	Da li ste zadovoljni ljubaznošću osoblja banke?	7%	9%	11%	39%	34%
4.	Da li ste zadovoljni promocijom poslovanja banke u periodu pandemije?	1%	6%	23%	38%	32%
5.	Kako ocenjujete korisničko uputstvo vaše banke sa aspekta razumljivosti primene?	3%	5%	8%	35%	49%
6.	Koliko ste u potpunosti zadovoljni celokupnom kvalitetom bankarske usluge?	19%	21%	6%	17%	37%
7.	Da li ste zadovoljni proširenjem bankarske ponude?	20%	36%	19%	16%	9%
8.	Da li ste zadovoljni brzinom korisničkog interfejsa?	4%	19%	27%	33%	17%

Izvor: Proračun autora primenom programa IBM SPSS Statistics.

Zapažamo da je većina ispitanika, tj. 32% zadovoljna cenom bankarske ponude, 30% ispitanika nema stav da su zaštićeni od sajber kriminala, 39% je zadovoljno ljubaznošću osoblja, 38% je zadovoljno promocijom poslovanja banke i 35% je zadovoljno korisničkim uputstvom sa aspekta razumljivosti primene. Veoma važno istraživačko pitanje jeste kvalitet celokupne bankarske ponude jer predstavlja svojstvo usluge koje je najteže oponašati i ima veliki uticaj na konkurentnost. Odgovori po ovom kriterijumu imaju najviše zadovoljnih ispitanika (37%).

U daljoj analizi treba proveriti tvrđenje da je proporcija ispitanika koji imaju negativan stav prema digitalnom bankarstvu manja od 45%. Testiranje ćemo izvršiti primenom SPSS procedure "Non parametring test". Promenljiva digitalno

bankarstvo ima dve kategorije: 1. kategorija ispitanika koji imaju negativan odnos prema digitalnom bankarstvu i 2. kategorija ispitanika koji nemaju negativan odnos prema mobilnom bankarstvu. Rezultat testa prikazan je u tabeli.

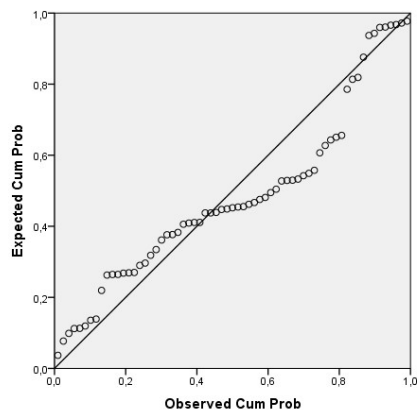
Tabela 3. Independent Samples Test

Independent Samples Test		Category	N	Observed Prop.	Test Prop.	Exact Sig. (1-tailed)
Digitalno bankarstvo	Group 1	ostali	104	,59	,45	,000
	Group 2	negativan	70	,40		
	Total		174	1,00		

Izvor: Proračun autora primenom programa IBM SPSS Statistics.

Na osnovu realizovanog nivoa značajnosti zaključujemo da prihvatamo alternativnu hipotezu da je proporcija ispitanika koji imaju negativan stav prema mobilnom bankarstvu manja od 45%. Naredna slika (*Slika 2.*) vizuelno potvrđuje hipotezu o normalnoj distribuciji za razvoj usluga digitalnog bankarstva.

Slika 2. Dijagram normalnosti raspodele za standardizovane rezidualne



Izvor: Proračun autora primenom programa IBM SPSS Statistics.

Napomena: Zavisna varijabla: Digitalna bankarska ponuda; Nezavisna varijabla: Očekivana promenljiva: cena bankarske ponude, zaštita od sajber kriminala, ljubaznost osoblja, promotivne aktivnosti, razumljivost korisničkog uputstva i brzina korisničkog interfejsa.

Dokazano je da pretpostavke normalnosti regresione analize nisu bile narušene. Tačke leže u približno pravoj dijagonalnoj liniji od donjeg levog do gornjeg desnog ugla dijagrama. Na osnovu dijagrama raspršenosti zaključujemo sledeće: po jačini kvantitativnog slaganja veza između celokupne digitalne bankarske ponude i ostalih pretpostavki je statistička, prilične jačine, zato što su tačke blizu zamišljenog pravca koji uvek prolazi kroz tačku. Po obliku je linearna, tačke su raspoređene približno zamišljenom pravcu, a po smeru direktna i pozitivna tj. sa rastom promenljivih dolazi do digitalne bankarske ponude. Za potrebe istraživanja na nivou zemlje moguće je identifikovati digitalnu zrelost klijenta.

Tabela 4. Digitalna zrelost klijenata po etapama

Etape zrelosti	Digitalna zrelost klijenata	%
Prikupljanje informacija	Dostupnost informacija	54
Otvaranje računa	Proces otvaranja	18
Uključivanje korisnika	Dostupnost kanala distribucije bankarske ponude	63
Day-to-day bankarstvo	Upravljanje nalogima i bankarskim proizvodima, autorizacija, upravljanje karticama, korisnička podrška, lične finansije, transferi i plaćanja	51
Proširena bankarska ponuda	Kartice, gotovinski zajam, ček, menica, hipoteka, računi (devizni, štedni, oročeni)	28
Prekid veze	Zatvaranje naloga	21

Izvor: Proračun autora primenom programa IBM SPSS Statistics.

Rezultati ankete upućuju na perspektivu klijenta koja pokazuje kako se poboljšanjem karakteristika i funkcionalnošću može postići zadovoljstvo klijenta. Najmanje zadovoljstvo (18) se javlja zbog nemogućnosti otvaranja računa na daljinu. Klijenti su prosečno zadovoljni obavljanjem svakodnevnih transakcija putem digitalnih kanala.

Ograničenja istraživanja

U ovom istraživanju prisutna su izvesna ograničenja. S obzirom, da je u periodu pandemije poštovana preporuka o beskontaktnim transakcijama sasvim je izvesno da dominiraju digitalni kanali distribucije bankarske ponude. Kod odgovora na pitanja koji uključuje Likertovu skalu, postoji mogućnost da pojedinci imaju različitu percepciju stvarnosti.

Zaključak i preporuke

Svetska ekonomija nakon pandemije neće biti ista, što važi i za bankarski sektor kao neodvojivi deo ekonomije. Na osnovu analize rezultata istraživanja koji su zasnovani na statističkim podacima, izvodi se zaključak da je pandemija ostavila dubok trag na bankarski sektor Srbije. Blagi porast učešća problematičnih kredita, posledica je negativnih efekata pandemije i većih dospeća kredita nakon prestanka drugog moratorijuma na otplatu kredita, negativnih uticaja pandemije virusa korona na finansijska tržišta u prvoj polovini 2020. godine, usledio je porast kompozitnog pokazatelja sistemskog stresa i drugih pokazatelja finansijskog zdravlja. Pitanje zadovoljstva klijenata bankarskom ponudom u uslovima krize, pa i ove pandemijske, naročito dobija na značaju. U praksi je pravi izazov motivisati klijente da budu lojalni banci. Jedinstveno rešenje ne postoji, jer su klijenti individua, ličnost za sebe sa svojim osobenostima, a banka sui generis preduzeće, a konkurentski uslovi oštri. Najviše zabrinjava stav ispitanika, s aspekta lojalnosti banci, jer najviše ispitanika ima definisan stav oko promene banke 73% ukoliko ona ne ispuni njihova očekivanja.

Ova studija je pružila odgovor na glavna istraživačka pitanja koja su podržana u literaturi. Ishodi ovih istraživanja definišu motivacioni pristup klijenata

bankarskog sektora Republike Srbije. Na osnovu rezultata analize konstatujemo da su klijenti banke najviše privučeni cenovnom pogodnošću banke, da koriste usluge mobilnog bankarstva, a od bankarskih proizvoda najviše plaćanje računa, kalkulator kurseva i uvid u trajne naloge. Možemo konstatovati da je većina ispitanika, 32% zadovoljna cenom bankarske ponude, 37% ispitanika nema stav da su zaštićeni od sajber kriminala, 42 % je zadovoljno ljubaznošću osoblja, 38% je zadovoljno promocijom poslovanja banke i 49 % je zadovoljno korisničkim uputstvom sa aspekta razumljivosti primene. Veoma važno istraživačko pitanje jeste kvalitet celokupne bankarske ponude jer predstavlja svojstvo usluge koje je najteže oponašati i ima veliki uticaj na konkurentnost. Odgovori po ovom zadatom kriterijumu jesu pozitivni i to pokazuju najviše zadovoljnih ispitanika (37%). Ova istraživanja pokazuju koje aktivnosti treba preduzeti da bi sektor bankarstva sačuvao svoju poziciju i dinamizirao svoju aktivnost. Rezultati ove analize samo potvrđuju hipotezu, da sektor bankarstva mora da koristi pandemijski izazov kao priliku za proširenje ponude svojih proizvoda i usluga, jer 36 % klijenata nije zadovoljno proširenjem bankarske ponude, uprkos kvalitetu koji se nudi za dosadašnje proizvode. Porast onlajn trgovine i usluga koji se odobravaju „na daljinu“, kao i uvođenje novih servisa poput video onboardinga, prenosa računa i prenosa sredstava putem mobilnih telefona, pokazuju spremnost banaka i regulatora da finansijsko tržište Srbije učine savremenim i usklade ga sa najnovijim trendovima u Evropi.

Masovni prelazak na digitalne usluge i preispitivanje starih poslovnih navika ubrzaće digitalnu konkurentsku dinamiku. Da bi opstale i vršile svoju misiju, banke će morati da se prilagode novonastalim okolnostima. Da bi ubrzali digitalnu transformaciju bankarskog poslovanja rukovodioci banaka treba da se fokusiraju na sledeće prioritete: Banke treba da se opredele za strateški prioritet kroz stvaranje novih tokova prihoda, smanjenje troškova i poboljšanje korisničkog iskustva. Treba uspostaviti tehnološke i organizacione mogućnosti kako na strani ponude, tako i na strani tražnje. Na strani ponude banka treba da upravlja svojim distributivnim kanalima prodaje. Kreiranjem interfejsa, kao na primer aplikacija prodavnica, treba da budu dostupne korisnicima kroz jednostavan pristup, uključujući brzinu postupka registracije, autentifikaciju i smernice za cene. Bankarski menadžeri u Srbiji treba da stvore povoljnije radno okruženje. Bankarski menadžeri treba da preduzmu više mera da bi podržali svoje zaposlene. Banke treba da nastave sa stručnim usavršavanjem svojih zaposlenih kroz vebinare, digitalne kurseve radi boljeg pružanja usluga klijentima. Pandemija COVID-19 primorala je bankarske klijente da prihvate digitalnu bankarske proizvode i usluge na daljinu. Usredsredjenost na klijenta može se poboljšati kroz 1. prilagodjenu bankarsku ponudu ka digitalnim proizvodima, uslugama i operacijama, 2. adaptacija u smislu postojećih linija poslovanja relevantnim kupcima u skladu sa postojećim propisima i 3. implementiranje inovacija u vidu novih, boljih i bezbednijih digitalnih rešenja i boljeg korisničkog iskustva. Što je

banka opremljenija, to i klijenti imaju više poverenja u nju. Rezultati sprovedenog istraživanja pokazuju da digitalne transformacije imaju uzlazni trend i da menjaju sliku tradicionalnih banaka. Najevidentnije koristi za klijenta jesu od pristupa servisu pa sve do sagledavanja efekata digitalne transakcije. Ostaje otvoreno pitanje za bankarske menadžere, da li će bankarski sektor biti otporniji u budućnosti i koliko će digitalizacija ubrzati proces ekonomskog oporavka, kao i kako poboljšati digitalnu bankarsku ponudu.

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IMPACT OF THE PANDEMIC COVID - 19 ON THE DIGITALIZATION OF THE BANKING SECTOR OF SERBIA

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Abstract

This paper examines the consequences of COVID-19 on the digitalization of the banking sector, in order to identify the challenges and opportunities of the banking sector in Serbia. The research consists of two parts. The first part uses statistical data from regulatory and supervisory bodies, and the second part refers to field research, which is based on a survey. Data processing was created using IBM SPSS Statistics software. Survey questionnaires were collected in the period from January to May 2022. The answers of 174 respondents, bank clients, were accepted for analysis. The questionnaire was compiled using a five-point Likert scale. This sample may not be entirely representative, but in any case it is sufficiently informative, as it is possible to draw a conclusion about the contribution of each variable to the development of digital banking. To analyze the relationship between the metric variable and several independent variables, we use multiple or multiple regression. Our assessments reveal the impact of digital products and services on the development of digital banking. In the research, specific goals should be determined, specifically what percentage of respondents are familiar with digital banking services. Also, further analysis should verify the statement that the proportion of respondents who have a negative attitude towards digital banking is less than 45%. In this research, regression analysis was used, as part of the analysis used to form the digital maturity of clients in Serbia. A two-factor analysis was used to research the preferred types of banking products and services. Data analysis using SPSS version 20 for Windows shows that: There is a positive and significant impact of digital banking products on bank customer satisfaction. Analyzed models for researching client preferences indicate that the bank's managerial approach implies real knowledge and monitoring of the wishes and preferences of its clients, as well as adequate key priorities that managers of the banking industry should provide. The research results show that a digital bank can be a unique answer to all challenges, as well as the most effective tool for retaining and attracting clients.

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Introduction

The COVID-19 pandemic, in addition to the health crisis, caused changes in the global economy, but also the way of doing business in all countries. The banking system is most affected by the challenges and risks caused by the pandemic. Financial operations were reshaped. Economic theory and its application in practice show the connection of the financial system with the real economy (Ercegovac, 2002). The path of digital transformation is a path of challenges, so a balance between technology, banking offer and financial needs of clients is necessary. With an adequate research methodology and research tools, it is possible to predict the future behavior of the client and respond with adequate digital solutions. Digital banking is a platform for solving simple financial transactions that will in the future suppress the traditional business relationship between the bank and the client.

The banking system of the Republic of Serbia is facing major changes, and the duration and severity of the consequences of the economic crisis, as well as the speed of recovery, are very difficult to assess. Therefore, bank managers have an arduous task to re-plan scenarios and adapt to the new situation. Analyzing the situation and adequately managing challenges and opportunities is key to the short-term survival and long-term health of the banking industry. Some authors believe that this attitude is crucial for financial organizations (Radić, et al., 2020). In the period of crisis, powerful bank managers are created, who can very successfully respond to all the challenges and take advantage of the opportunities that are offered. Experience shows that leaders need to make decisions today to expect victory in the future. On the basis of wrongly made decisions, crisis prediction models and the behavior of the banking system to various influences from the environment were developed.

In the conditions of the pandemic, the experience of clients is increasingly differentiated, so bank managers suggest changing the current business contents in order to meet the financial needs of their clients and withstand the pressure of growing competition through new models of banking activities. A modern bank must be present on the market in the way that users or clients expect from it. The challenges facing the modern banking industry are largely determined by financial technologies, shadow banking and innovation in finance on the international stage. The patterns by which the banking sector operates were changing even before the outbreak of the pandemic, so we have various existing technological innovations in use. Transformation of banking activities is becoming a necessity, especially digital transformation, as a dominant macrotrend. There is a dominant desire to connect people, despite physical distance, so infinite solutions are an

integral part of measures to reduce the rate of contagion, as a safe and secure way of conducting transactions. However, the growth of cashless transactions has caused new challenges for the banking industry in terms of fraud.

pandemic has created the perfect environment for cybercrime in pandemic conditions, among which digitally inexperienced clients and those clients with traditional beliefs who need continuous personalized service are the most affected. According to the Financial Times, it is estimated that more than half of the £43 billion borrowed was lost to fraudulent claims. (Thomas, et al. 2020). A key role for the banking industry is to take a holistic approach to digital experiences. In the conditions of the pandemic, the trend of digital transformation is very current, but solving the problem of the digital gap is becoming more and more dominant. A number of information technologies are in use that can help the process of digital transformation of the banking sector and thus help both managers and clients of the banking sector (integration of artificial intelligence; blockchain technology; internet of things; cloud computing) and other advanced solutions in order to better respond to changes in the way performing business activities.

Objectives of the study

The first and basic goal of the paper is to analyze the structure of the banking sector of the Republic of Serbia and explain its transformation in the short term in the conditions of the pandemic. As a continuation of this goal, an additional analysis is imposed, the examination of clients' attitudes about the banking offer. The main goal of this paper is to investigate the impact of the COVID-19 pandemic on banking operations. The subject of the research is characterized by the topicality and importance of the problem, significant for the banking industry, both from the macroeconomic aspect (effective allocation of resources on the financial market) and the microeconomic aspect (laying off employees) as well as from the psychological aspect (risk and increased stress due to the health and financial crisis). The goal of the research is to determine the consequences of the pandemic on the banking sector of Serbia, as well as to define banking products and services during the pandemic period and to determine the satisfaction of the bank's clients with that offer. Many factors affect customer satisfaction, and some of them are: price, reliability, availability, ease of application, courtesy of service staff, etc. Bearing in mind the key issues that bank managers will face in the future with the dynamics of constant transformation in order to focus on the financial needs of the client, increase profitability, within the limits of risk tolerance, on the one hand, as well as the motivation of clients in choosing a banking offer on the other sides, initiated the choice of topic and focused the subject and research goal of this paper.

The advantage of this research is in the discovery of behavior based on the mutual exchange of management ideas with clients, in order to continuously improve and

strengthen these relationships. The behavior of banking clients gravitates from conservatism and aversion to digital sales channels in the period before the pandemic to increasing motivation to use digital banking products during the pandemic. At the same time, a cautious motive of clients due to cybercrime was observed. The obtained data give a clear picture: there are clients who are ready and looking for digital solutions immediately, and bank managers should implement them as soon as possible with increasing protection against the risk of cybercrime, and there is another group of traditional clients who, despite the corona virus, prefer going to the bank. With this research, we make a double contribution to the literature. First, we examine the impact of the pandemic on the digitization of banking operations, through a multi-channel approach, that is, the choice of the client to contact the bank at any time, any time and from any device, digital procedures, electronic management of relations with clients. Second, we propose the desirable characteristics of the banking offer in the process of digital transformation. Examining customer satisfaction is a very important parameter that must be taken into account when forming a banking offer. Based on this research, it is possible to draw a conclusion about the functioning of the banking sector in the future, given that there are various challenges during the pandemic period. Digital transformation of banking operations is no longer seen as a possibility, but as a necessity. What was a matter of choice for most banks in the pre-pandemic period has now become an obligation for all participants in the financial market during the pandemic.

Literature review

It is planned that this research will be carried out in two phases, theoretical research and practical verification. Research on sources of information on the impact of the pandemic on the banking sector indicates a negligible number of determinants on this topic. (about 15,900 results). Searching for sources in English yielded many more sources (48,500,000 results). These mentioned results can be accepted as rough indicators of the openness and topicality of the research topic. The effect of the pandemic on the banking sector includes impact evaluations that are part of a broader evidence-based policy-making program (Gertler, 2011). Several studies have revealed the negative effects of the pandemic, through increased inefficiency, futures price changes, oil price changes, and increasing market volatility (Narayan, 2020; Haldar et al., 2021). We agree with the author's opinion that the COVID-19 pandemic has had a major impact on the global economy. Bearing in mind that in the last year 2021, the world GDP decreased by about 6%, this crisis caused by the pandemic of COVID-19 can be compared to the biggest economic crises of all time, such as the one in 1929, as well as the one caused by the oil shock of the seventies years of the last century (Ramasamy, 2020). In the period from 1970 to 2007, 394 financial crises occurred, among which the most common are 207 currency crises, followed by

124 banking crises and 63 contemporary debt crises (Racickas, et al., 2012). The crisis caused by the COVID-19 pandemic, the increase in systemic risk caused the growth of non-payable loans worldwide (Rizwan, et. al. 2012). The increase in non-performing loans should be viewed in accordance with other unfavorable macroeconomic indicators. The authors (Ari, 2021) observe that during the pandemic, borrowers and companies are increasingly faced with job losses, slowed sales and falling profits. It is a realistic expectation that clients will seek financial assistance, and regulators will encourage banks to help them. The banks themselves have their own plan to protect clients from the corona virus, by recommending working from home, and providing clients with the ability to perform banking activities without physical interaction.

Also, the World Health Organization (WHO, 2020) advised people to use contactless payment as much as possible, because banknotes are considered a potential carrier of the coronavirus. For these reasons, physical banking is becoming less and less attractive, not only for the elderly and burdened population, but also for the younger population. According to Pwc's 2021 research on customer habits, preferences, borrowing, payment, insurance and investing, based on 6,000 respondents, an increase in the number of customers for digital banking services was observed, while 32 percent avoid going to a physical branch. Banks have successfully responded to the challenges in the pandemic period. In the opinion of many authors, digitization leads to a reduction of up to 25% of costs, which directly leads to an increase in income in the segment of short-term and cash lending. The pandemic is boosting digital banking, online banking, telephone banking and call center services. While the coronavirus makes the need for digital banking services more urgent, consumers' growing preference for digitization is nothing new. According to a recent survey by Lightico, 56% of banking consumers reported being diverted from online banking interactions to brick-and-mortar locations. As many as 48% of respondents say they have been asked to print, sign and email documents while banking online (Lighico, 2021). In order to provide digitized banking services to ensure success in the financial market, AtKearney, in his research, suggests that banks should implement electronic database and customer interactions through social networks, with lower costs (AtKearney, 2014). Banks can obtain data on social networks about the opinions of users about new banking products and services, the quality of customer service, and the problems that are present. The US banking industry is in a major digital arms race. For many banks, digital distribution channels for their products and services have become more important than branches and ATMs. Banks in developed countries believe that investments in digital technology bring greater benefits than the satisfaction of their customers. For example, Bank of America receives more deposits from its mobile channel than from branches (Rogers, 2018).

A review of the literature shows that digital transformation has been accelerated by an average of six years (Twilio, 2020). Research from a consulting company shows that bank customers have increased their use of digital banking services by 50% since the start of the pandemic, and 71% of them use digital banking channels weekly (KPMG, 2020). Research conducted in Kosovo (Božović, 2016) indicates that the digital distribution channels of the banking offer are still not represented to the extent they should be, but banks are interested in digitizing their services on a larger scale. The transformation of the banking system should be directed towards the client (Jaubert, 2014). Many useful solutions and recommendations for the scope of the digital banking offer during the pandemic period were observed, but the risk of cybercrime during the pandemic was also pointed out. In its document "Systemic cyber risk" (ESRB, 2020), the European body for systemic risk presented a conceptual model of the development and materialization of cyber risk, as well as the factors of the emergence of a systemic crisis due to a cyber incident. Bearing in mind that since the pandemic period, the intermediary role of banks has been reduced, the banking sector operates in conditions of greater risk due to uncertainty during the pandemic. Digital banking service providers and application developers can take advantage of academic research to improve market share with the concept of service personalization. (Krishanan, et al. 2016).

In Serbia, the central bank made a decision to act in an economically proactive and preventive manner in the context of a worsening health situation. Banks responded by taking measures to continue operations, taking care of the unhindered performance of the bank's basic functions, as well as preserving the health of its employees. The author's research (Terkan, Ucar, 2020; NBS, 2021) opens a new view of distance learning, because most respondents have a negative opinion regarding the effectiveness and practice of distance learning. Banks have rapidly activated work-from-home options for the largest number of employees, cooperation and communication with customers takes place electronically and via video-conference calls, while on the other hand, bank clients are encouraged to use digital communication channels, including contactless payments (mobile by phone, via computer, payment cards) including payments with the recently introduced QR code at points of sale, for questions, consultations or sending documents to banks, it is recommended to use e-mail, social networks and banking contact center services. By reviewing the relevant literature and consulting official data, the analysis looks at the factors that can contribute to the banking sector being durable enough after the Covid-19 pandemic, to the financial system taking advantage of the current crisis situation and adopting a more sustainable form of business. The indicator of gross non-collectible claims (NLP) is still below the pre-crisis level and amounted to 3.6% in June, which indicates that the measures of the National Bank of Serbia and the Government were timely and that they prevented a larger negative effect on the economy and the

population, and thereby also financial stability. Also, compared to the end of 2020, that share decreased (by 0.1 pp), with the economy sector 17% decreasing by 0.2 pp to 2.9% in June, and the population 18% to growth of 0.4 pp, to 4.0% in June (NBS, 2021). Back in 2018, the National Bank of Serbia introduced a system for instant payments, thanks to which payments are available to citizens and the economy 24 hours a day, seven days a week, throughout the year. Payment is possible from all commonly used modern communication devices, at any time and from any place, and money is transferred in 1.2 seconds (NBS, 2018). The effect that the pandemic can have on the financial system depends on: a) the further spread of the virus and its impact on economic trends, b) the reaction of monetary and fiscal policy to market shocks and c) the regulatory reaction to the possible collapse of the banking system (Beck, 2020).

Research methodology

The research methodology is aligned with the goals and objectives. The research consists of two parts. The first part refers to official statistical data for Serbia, and the second part includes empirical research.

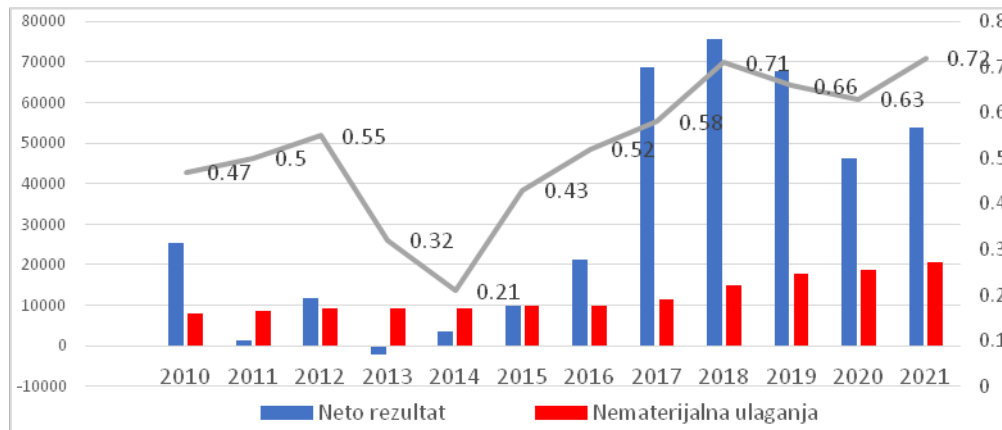
Consequences of COVID-19 on the banking sector of Serbia

In the first part, the statistical data of NBS, Republic Institute of Statistics are used. By analyzing these data, we see the depth of the consequences of COVID-19 on the banking sector of Serbia.

The Central Bank of Serbia was one of the first central banks in Europe to respond to the crisis caused by the pandemic in a timely and comprehensive manner with a series of implemented measures of fiscal, monetary and macroprudential policy, which acted in the direction of strengthening the stability of the financial system of the Republic of Serbia. Official data show that in Serbia, 78.4% of the population uses the Internet every day, and more than 50% of them access the Internet via mobile devices. Also, the number of mobile banking users has increased up to 20 times in the last six years. According to official data, mobile banking is used by more than 2.2 million people in Serbia (NBS, 2022). The first bank in Serbia that introduced mobile banking through smartphone applications is Banca Intesa, and in the world it is "JP Morgan Chase Bank" from the USA (Sanader, 2014).

The next, logical step is the analysis of intangible assets. It is the only publicly available data on investment in IT technologies, innovation and digitization, as well as risk management, but the data is limited because it is cumulative data on software and licenses. The research results for the period from 2010 to 2021 are presented graphically (*Figure 1*).

Figure 1. Correlation coefficient of intangible investments and net results for the banking sector for the period from 2010 to 2021.



Source: Author's calculation based on data from the National Bank of Serbia.

The correlation between intangible investments and net results for the banking sector of Serbia is 0.74, i.e. medium strong correlation relationship and positive. The strongest correlation was achieved in 2018. According to the comparative data from the following graph, it is evident that there is a connection between intangible investments and net results. However, the correlation coefficient is decreasing despite increased intangible investments. It only confirms the influence of other factors that influence and burden the net result. A loss was also recorded in 2013, which arose as a result of the revocation of the operating license of two banks due to the high expenses of writing off placements. Due to the epidemic, clients were forced to turn to electronic and mobile banking, so the introduction of the IPS payment system before the outbreak of the epidemic additionally contributed to its popularization. On February 27, 2020, instant payment by QR code was introduced at points of sale, which all selected banks implemented in their m-banking applications.

Empirical research of clients' attitudes about the banking offer during the pandemic period

Of clients' attitudes about the banking offer during the pandemic period was conducted. To determine the satisfaction of clients with the banking offer during the pandemic, it is not possible to measure directly, but indirectly. Quantitative research was conducted using the method of surveying and interviewing on the population who are clients of the bank in the territory of central Serbia. This paper is based on the application of primary and secondary data. Primary data were collected through structured questionnaires. Data collection for this research was conducted in the period from January to May 2022. The research was conducted

among the same group of people, i.e. researchers conducted informal interviews and surveyed exclusively clients of the Serbian banking sector.

The number of respondents was 200, of which 175 were valid survey questionnaires, which were used to calculate the importance of the parameter and purchase motive. In order to protect the confidentiality of the participants, the data is encrypted in the work. An appropriate scale was implemented in the research, which is also used by other researchers for the same purposes. The questions are closed-ended, with predefined answers. Data processing was created using the SPSS statistical computer package for social sciences.

The questionnaire consists of two parts. The first part of the questionnaire refers to demographic characteristics (The set of demographic questions includes: gender, age group, education of the respondents, work experience), and the second part of the questions aims to open important questions related to mobile banking, so that the obtained results contribute to a better understanding and evaluate the current state and offer of digital services by banking institutions. The questionnaire in the paper was developed using a five-point Likert scale. The questions in the survey questionnaire are structured in two parts, with answers expressed in grades from 1 to 5 (1- do not agree at all, 2. do not agree, 3- have no opinion, 4 - agree and 5- completely agree) The questions were formulated in such a way as to examine the attitudes of clients about the banking offer and which influence the motivation to purchase banking products and client satisfaction. (Gliem, 2003).

Research results

A total of 174 questionnaires (N=174) were available for statistical analysis. Among the respondents there were 56 female persons (97%) and 77 male persons (44%). Among them, 79 people under the age of 35 (45%), 53 people between the ages of 35 and 45 (31%) and 42 people over 45 (24%) were surveyed. The data show us that the young population dominates among clients. As far as the level of education is concerned, 108 people (62%) have a secondary level of education, 9 people (5%) have a lower education and 57 people have completed a higher school or university (33%). In terms of length of service, employees with up to 10 years of service dominate, 72 people (41%), followed by 54 people with up to 20 years of service (31%) and 48 people with more than 20 years of service (28%).

After examining the demographic characteristics, there followed an examination of the motivational attitudes that the respondents ranked according to their degree of importance for choosing a bank. Based on the homogeneity of variance test, we determine in which facilities the assumption of homogeneity of variance is not violated (*Table 1*). The most desirable convenience is: the price convenience of the banking offer (79%), the user experience (82%) and the reputation and image of the bank (79%), this means that there is a statistically significant difference

between the mean values of the specific convenience. The lowest ranked convenience is the location of the bank (29).

Table 1. Test of homogeneity of variance

The most important reasons for choosing a bank?	Levene Statistic	df1	df2	Sig.
Positive experiences of close people	.565	2	45	.419
User experience	5,509	2	45	.006
Bank location	.369	2	45	.608
Price convenience	7,532	2	45	.000
Reputation and image of the bank	4.101	2	45	.013

Source: Author's calculation using the IBM SPSS program Statistics.

Out of 174 respondents, most respondents (59%) use mobile banking, 4% use a phone call, and 37% make a physical visit to the bank. By detailed segmentation of the responses, most of the respondents (42%) use the following banking products (bill payment, exchange rate calculator and insight into standing orders). The results of the frequency analysis show that clients use the mobile phone the most (89%), the dominant support is the guide through the application 52%, almost daily use of the Internet (79%), while the smallest physical visit to a bank branch is once a month at 37%. In terms of bank loyalty research, the majority of respondents have a defined attitude about changing banks, 73% if it does not meet their expectations.

The following is a set of questions intended to examine the importance of various factors in the pandemic period. Respondents were given the option of rating from 1-5, where 1- is not satisfied at all, and 5 is very satisfied. (*Table 2.*)

Table 2. Examining the importance of factors in the pandemic period

A row. Number	A research question	EVALUATION				
		1	2	3	4	5
1.	Are you satisfied with the price of the bank offer?	6%	26%	29%	32%	7%
2.	Do you think you are protected from cybercrime?	10%	19%	30%	32%	9%
3.	Are you satisfied with the courtesy of the bank staff?	7%	9%	11%	39%	34%
4.	Are you satisfied with the promotion of the bank's business during the pandemic?	1%	6%	23%	38%	32%
5.	How do you evaluate the user manual of your bank from the aspect of comprehensibility of application?	3%	5%	8%	35%	49%
6.	How completely satisfied are you with the overall quality of the banking service?	19%	21%	6%	17%	37%
7.	Are you satisfied with the expansion of the banking offer?	20%	36%	19%	16%	9%
8.	Are you satisfied with the speed of the user interface?	4%	19%	27%	33%	17%

Source: Author's calculation using the IBM SPSS Statistics program.

We note that the majority of respondents, i.e. 32% are satisfied with the price of the bank's offer, 30% of the respondents do not believe that they are protected from cybercrime, 39% are satisfied with the courtesy of the staff, 38% are satisfied with the promotion of the bank's business and 35% are satisfied with the user manual from the aspect of comprehensibility of application. A very important research question is the quality of the entire banking offer because it is the most difficult service attribute to imitate and has a great impact on competitiveness. Answers according to this criterion have the most satisfied respondents (37%).

In further analysis, the statement that the proportion of respondents who have a negative attitude towards digital banking is less than 45% should be verified. We will perform the testing using the SPSS procedure " Non parametrizing test". The digital banking variable has two categories: 1st category of respondents who have a negative attitude towards digital banking and 2nd category of respondents who do not have a negative attitude towards mobile banking. The test result is shown in the table.

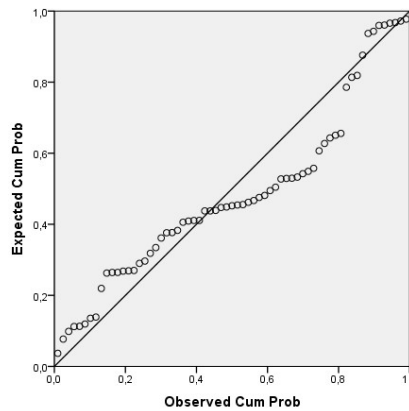
Table 3. Independent Samples Test

Independent Samples Test	Category	N	Observed Prop.	Test Prop.	Exact Sig. (1-tailed)	
Digital banking	Group 1	the others	104	,59	,45	,000
	Group 2	negative	70	,40		
	Total		174	1.00		

Source: Author's calculation using the IBM SPSS Statistics program.

Based on the realized level of significance, we conclude that we accept the alternative hypothesis that the proportion of respondents who have a negative attitude towards mobile banking is less than 45%. The next picture (*Figure 2*) visually confirms the hypothesis of a normal distribution for the development of digital banking services.

Figure 2. Normality distribution diagram for standardized residuals



Source: Author's calculation using the IBM SPSS Statistics program.

Note: Dependent variable: Digital banking offer; Independent variable: Expected variable: price of banking offer, cybercrime protection, friendliness of staff, promotional activities, comprehensibility of user manual and speed of user interface.

It was proved that the normality assumptions of the regression analysis were not violated. The points lie in an approximately straight diagonal line from the lower left to the upper right corner of the diagram. Based on the scatter diagram, we conclude the following: according to the strength of the quantitative agreement, the connection between the entire digital banking offer and the other assumptions is statistical, of considerable strength, because the points are close to the imaginary direction that always passes through the point. Its shape is linear, the points are distributed approximately in the imagined direction, and its direction is direct and positive, i.e. with the growth of variables comes the digital banking offer. For the purposes of country-level research, it is possible to identify the digital maturity of the client.

Table 4. Digital maturity of clients by stages

Stages of maturity	Digital maturity of clients	%
Information gathering	Availability of information	54
Account opening	Opening process	18
User involvement	Availability of distribution channels of the banking offer	63
Day-to-day banking	Account and banking product management, authorization, card management, customer support, personal finance, transfers and payments	51
Extended banking offer	Cards, cash loan, check, bill of exchange, mortgage, accounts (foreign exchange, savings, term)	28
Disconnection	Closing the account	21

Source: Author's calculation using the IBM SPSS Statistics program.

The survey results point to the client's perspective, which shows how customer satisfaction can be achieved by improving features and functionality. The least satisfaction (18) occurs due to the impossibility of opening an account remotely. On average, clients are satisfied with performing everyday transactions through digital channels.

Limitations of the research

There are certain limitations in this research. Given that the recommendation on contactless transactions was respected during the pandemic period, it is quite certain that digital distribution channels of the banking offer dominate. When answering questions that involve a Likert scale, there is a possibility that individuals have different perceptions of reality.

Conclusion and recommendations

The world economy will not be the same after the pandemic, which also applies to the banking sector as an inseparable part of the economy. Based on the analysis of research results based on statistical data, it is concluded that the pandemic left a deep mark on the banking sector of Serbia. The slight increase in the share of problem loans is a consequence of the negative effects of the pandemic and higher loan maturities after the end of the second moratorium on loan repayments, the negative effects of the corona virus pandemic on the financial markets in the first half of 2020, followed by an increase in the composite indicator of systemic stress and other indicators of financial health. The issue of client satisfaction with the banking offer in crisis conditions, including this pandemic one, is gaining particular importance. In practice, it is a real challenge to motivate customers to be loyal to the bank. There is no single solution, because clients are individuals, a personality in themselves with their own peculiarities, and the bank is a sui generis company, and competitive conditions are harsh. The attitude of the respondents is the most worrying, from the aspect of loyalty to the bank, because most of the respondents have a defined attitude about changing the bank, 73%, if it does not meet their expectations.

This study answered the main research questions that are supported in the literature. The results of these researches define the motivational approach of clients of the banking sector of the Republic of Serbia. Based on the results of the analysis, we conclude that the bank's clients are most attracted by the bank's price advantage, that they use mobile banking services, and among banking products, the most are bill payment, exchange rate calculator and insight into standing orders. We can state that the majority of respondents, 32%, are satisfied with the price of the bank's offer, 37% of respondents do not believe that they are protected from cybercrime, 42% are satisfied with the friendliness of the staff, 38% are satisfied with the promotion of the bank's business and 49% are satisfied with the user instructions from the aspect of comprehensibility applications. A very important research question is the quality of the entire banking offer because it is the most difficult service attribute to imitate and has a great impact on competitiveness. The answers according to this given criterion are positive and this is shown by the majority of satisfied respondents (37%). These studies show what activities should be undertaken in order for the banking sector to preserve its position and dynamize its activity. The results of this analysis only confirm the hypothesis that the banking sector must use the pandemic challenge as an opportunity to expand the range of its products and services, because 36% of clients are not satisfied with the expansion of the banking range, despite the quality offered for the current products. The increase in online trade and services that are approved "at a distance", as well as the introduction of new services such as video onboarding, account transfer and fund transfer via mobile phones, show the willingness of banks and regulators to modernize the Serbian financial market and bring it into line with the latest trends in Europe..

The massive shift to digital services and the rethinking of old business habits will accelerate digital competitive dynamics. In order to survive and fulfill their mission, banks will have to adapt to the new circumstances. In order to accelerate the digital transformation of banking operations, bank managers should focus on the following priorities: Banks should choose a strategic priority through the creation of new revenue streams, cost reduction and improvement of user experience. Technological and organizational capabilities should be established both on the supply side and on the demand side. On the supply side, the bank should manage its sales distribution channels. By creating interfaces, such as app stores, they should be accessible to users through easy access, including the speed of the registration process, authentication, and pricing guidelines. Bank managers in Serbia should create a more favorable working environment. Bank managers should take more measures to support their employees. Banks should continue professional development of their employees through webinars, digital courses in order to provide better services to clients. The COVID-19 pandemic has forced banking customers to embrace digital banking products and services remotely. Focus on the client can be improved through 1. adapted banking offer to digital

products, services and operations, 2. adaptation in terms of existing lines of business to relevant customers in accordance with existing regulations and 3. implementing innovations in the form of new, better and safer digital solutions and better user experience. The more equipped the bank is, the more trust clients have in it. The results of the conducted research show that digital transformations have an upward trend and are changing the image of traditional banks. The most obvious benefits for the client are from accessing the service to seeing the effects of the digital transaction. It remains an open question for bank managers, whether the banking sector will be more resilient in the future and how much digitization will accelerate the process of economic recovery, as well as how to improve the digital banking offer.

Literature

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