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UTICAJ MOBILNIH TEHNOLOGIJA I INTERNETA NA BUDUĆNOST POSLOVANJA BANAKA

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Rezime

Brzi razvoj informacionih tehnologija, koje su našle primjenu u svim oblastima ljudske djelatnosti, doveo je i do promjena u načinu bankarskog poslovanja. Tradicionalno bankarstvo neizostavno je podrazumijevalo odlazak u banku radi korišćenja bankarskih usluga. U današnje vrijeme usluge banaka dostupne su klijentima u njihovim domovima ili na bilo kojem drugom mjestu. To je prvenstveno rezultat razvoja interneta i mobilnih tehnologija, usljed kojeg je došlo do razvoja novih vidova bankarskog poslovanja, poznatih pod nazivom internet bankarstvo i mobilno bankarstvo. Ova dva vida bankarstva predstavljaju okosnicu buduće bankarske djelatnosti.

Ključne riječi: internet, internet bankarstvo, mobilno bankarstvo, prednosti, ograničenja, fintek kompanije

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Uvod

Primjena savremenih informacionih tehnologije u bankarskom sektoru dovela je do unaprijeđenja bankarskog poslovanja. Broj informacija koje se mogu obraditi je sve veći i praktično postaje neograničen, a s obzirom na to da se one prostiru bez prostornog i vremenskog ograničenja bankarsko tržište je postalo globalno. Pored toga, došlo je i do razvoja novih proizvoda i usluga, kao i promjene u obimu i strukturu tražnje na tržištu bankarskih proizvoda i usluga. Prednosti koje su informacione tehnologije donijele bankarskom sektoru su višestruke i ogledaju se u smanjenju troškova poslovanja, unaprijeđenju svijesti klijenata o bankarskim proizvodima i uslugama, inovativnosti u poslovanju i ponudi standardnih i nestandardnih proizvoda i usluga, povećanju efikasnosti ponude, kao i stavljanju akcenta na klijenta kao pojedinca. Nova tehnološka infrastruktura dovodi do promjena u načinu vršenja komunikacionih aktivnosti, kao i u načinu građenja odnosa između klijenata i banke, što ima za posljedicu njihovu efikasniju međusobnu komunikaciju i poslovanje. Navedene prednosti uticale su na pojavu i postepeni razvoj elektronskog bankarstva, koje predstavlja skup raznovrsnih načina izvođenja finansijskih transakcija, upotrebom informacionih i telekomunikacionih tehnologija (Sanader, 2014).

U okviru razvoja elektronskog bankarstva zapaža se šest faza, koje se odnose na automatizaciju šalter-skog poslovanja; bankomate; platne kartice i POS uređaje; kućno bankarstvo (homebanking); internet bankarstvo i mobilno bankarstvo (Jokić i saradnici, 2017).

Automatizacija bankarskog poslovanja podrazumijevala je opremanje bankarskih šaltera računarskom opremom, čime je klijentima bio znatno olakšan pristup dokumentaciji, kao i njeno popunjavanje.

Uvođenje bankomata imalo je za cilj da klijentima omogući pristup servisima banke u bilo koje vrijeme, odnosno da koristi svoj račun 24 sata na dan.

Za POS terminale je karakteristično to što omogućavaju dostupnost bankarskih usluga na mjestu plaćanja proizvoda.

Kućno bankarstvo (homebanking) omogućava velikim korisnicima iznajmljivanje linija i direktnu konekciju sa bankarskim aplikacijama, u cilju jednostavnijeg plaćanja i transakcija, pri čemu telefonski servis obezbjeđuje brzo dobijanje svih potrebnih informacija (Isto).

O internet bankarstvu i mobilnom bankarstvu, kao najnovijim fazama elektronskog bankarstva, biće riječi u narednom izlaganju.

Internet bankarstvo

Razvoj internet bankarstva

Razvoj internet bankarstva, koje se može definirati kao proces u kojem je klijent u mogućnosti da pristupi, kontroliše i koristi svoj račun putem interneta,¹ usko je povezan s razvojem World Wide Web-a (WWW) (Brčić, 2018).

Počeci internet bankarstva vežu se za 1983. godinu, kada je Škotska banka korisnicima NBS10 (Nottingham Building Society) mreže, ponudila na korištenje internet bankarski servis u Velikoj Britaniji, poznat pod nazivom Homelink. Upotreba ovog servisa, koji je bio dostupan malom broju korisnika, ostvarena je pomoću televizora i telefona, na način što su se preko telefonske linije na televizoru tražili i listali podaci iz baze podatke.

U oktobru 1994. godine, internet bankarstvo, kojeg je razvila financijska institucija Stanford Federal Credit Union¹¹, prvi put se javlja u Sjedinjenim Američkim Državama. Usluge internet bankarstva mogli su da koriste svi klijenti ove finansijske institucije.

Maja 1995. godine Wells Fargo banka izradila je prvi web bankarski program za poslovanje na internet (Mihailović, 2009). Iste godine, u Atlanti (SAD) osnovana je Security First Network Bank (SFNB), prva banka koja je svoje poslovne aktivnosti obavljala isključivo putem interneta (Isto; Brčić, 2018).

U aprilu 1996. godine, prema podacima Online Banking Reporta, u Sjedinjenim Američkim Državama zabilježeno je milion korisnika internet bankarstva. Naredne godine internet bankarstvo imalo 4,2 miliona korisnika, da bi se 2001. godine taj broj povećao na 19 miliona. Svakako, trend rasta internet bankarstva zastupljen je u svim državama svijeta, a sve je više banaka koje se opredjeljuju da svoje poslovne aktivnosti obavljaju samo preko interneta (Brčić, 2018).

¹ Ovo je jedna od mnogih definicija internet bankarstva, pošto različiti autori ovaj pojam opisuju na različite načine. Ipak, suština ovih opisa u osnovi je ista i svodi se na predstavljanje internet bankarstva, kao čina sprovođenja finansijskog posredovanja na internetu. (Ibok i Ikoš, 2014).

Vrste internet bankarstva

Postoje tri vrste Internet bankarstva i to: informaciono, komunikativno i transakciono internet bankarstvo (Mihailović, 2009).

Informaciono internet bankarstvo (poznato i kao basic level service) predstavlja prenošenje informacija o proizvodima i uslugama, koji se nude klijentima i javnosti uopšte. Komunikacija na relaciji banka-klijent odvija se putem e-mail-ova, pri čemu se ovaj vid prenošenja marketinških informacija može obavljati preko servera banke ili web sajta.

Ranjivost komunikacija koje se vrše preko servera je relativno niska, što nije slučaj ukoliko je web sajt glavni komunikacioni kanal između banke i klijenta. Stoga banka preduzima razne preventivne mjere kako bi se rizici preduprijedili. Komunikativno internet bankarstvo, koje se još naziva i simple transactional websiter, omogućava interakciju između sistema banke i klijenata. Klijenti mogu da primaju uputstva, kao i informacije o proizvodima i uslugama. Pored toga, oni mogu da prave upit stanja po tekućem računu, popunjavaju zahtjev za zajam, te da primaju i šalju e-mail-ove, ali ne mogu da obave ni jednu novčanu transakciju sa svoga računa. Ovi servisi su povezani sa internim sistemom banke, pa su usljed toga i rizici veći. Zato je potrebno da menadžment razvije odgovarajuće mjere prevencije, a da kontrolori nadgledaju sistem i upozoravaju na neovlašćene upade u internu mrežu banke (Isto).

Transakciono internet bankarstvo ili, kako se još naziva, full transactional websiter, omogućava klijentima da izvršavaju transakcije. Klijenti imaju mogućnost da koriste svoje račune na način da mogu da transferišu novac, plaćaju različite račune, kupuju i prodaju hartije od vrijednosti i sl. Kako je veza između servera interne mreže internet banke i spoljašnje mreže direktna, ovakav oblik povezanosti je najranjiviji, te stoga mora biti podložan najjačoj kontroli (Isto).

Vrste usluga u internet bankarstvu

Većina svjetskih banaka u svom internet poslovanju nudi sljedeće poslove i usluge: mjenjački poslovi; otvaranje i korišćenje zajmovnih računa; provjera stanja na računima klijenata; otvaranje i korišćenje čekovnih računa; plaćanje računa elektronskim putem; korišćenje sistema kreditnih kartica; trgovina hartijama od vrijednosti; obustave plaćanja; otvaranje i korišćenje tekućih računa; provjera transakcija iz prethodnog perioda na svim računima klijenta; elektronski transferi između računa; e-mail korespondencija; otvaranje i korišćenje depozitnih računa; obavljanje brokerskih usluga za klijente banke; odobravanje hipotekarnih i ostalih kredita; te usluge savjetodavne prirode (Radojević, 2009).

U smislu sistematizacije usluga internet bankarstva mogu se izdvojiti tri osnovne vrste usluga i to: konsolidovanje računa i obavljanje plaćanja; obavljanje finansijskog transfera između različitih računa i podnošenje aplikacija za kredite, osiguranja i sl.

Prva vrsta usluga je najpopularnija i omogućava klijentima banke da izvrše konsolidaciju većeg broja računa koje plaćaju svakog mjeseca, kao i da putem jedinstvenog naloga izvrše skidanje sredstava sa svojih bankarskih računa.

Druga vrsta usluga omogućava klijentima da vrše prenos sredstava sa računa na račun, bez odlaska u poslovnice ili mjesta gdje se nalaze ATM-ovi.

Slično kao i prethodnu, treću vrstu usluga takođe karakterišu efekti koji se odnose na uštedu vremena klijenata (Isto).

Prednosti internet bankarstva

U odnosu na tradicionalno bankarsko poslovanje, internet bankarstvo pruža brojne prednosti, kako za banke, tako i za korisnike njihovih usluga. Navešćemo neke od njih, za koje smatramo da su najvažnije:

Niži troškovi poslovanja

Banke snižavaju troškove poslovanja tako što zatvaraju određeni broj poslovnica, a klijenti na način što plaćaju nižu proviziju na bankarske usluge, koje su kod internet bankarstva, često i besplatne (Isto, Mihailović, 2009).

Prostorna neograničenost

Internet bankarstvo omogućava klijentu da koriste usluge neke banke bez obzira na mjesto njegovog trenutno boravka. Naravno, potrebno je da korisnik ima otvoren račun u toj banci, da na mjestu iz kojeg obavlja poslovanje postoji računar sa pristupom internetu, te da korisnik zna sve šifre koje su mu potrebne za ulazak u internet banku i svoj račun. U tradicionalnom bankarstvu klijent je vezan za mjesto i zemlju u kojoj postoje filijale banke u kojoj ima otvorene račune (Radojević, 2009).

Vremenska neograničenost internet banaka

Za razliku od klasičnog bankarstva koje podrazumijeva obavljanje bankarskih poslova u toku radnog vremena banke, kod internet bankarstva to nije slučaj, jer se transakcije mogu obavljati 24 sata, tokom svakog dana u godini. To znači da korisnici, ukoliko imaju internet konekciju, mogu pristupiti banci kad god to požele (Brčić, 2018; Mihailović, 2009).

Širok asortiman bankarskih usluga

Sve veća prisutnost informacionih tehnologija u savremenom svijetu uslovlila je da banke, ukoliko žele da ostanu konkurentne na tržištu, razvijaju i pružaju netradicionalne usluge, što je dovelo do toga da je broj usluga koje banke nude svojim klijentima putem interneta prilično veliki. Tako, banke imaju korist od razvoja novih usluga, a klijenti od proširenja ponude banaka, u smislu boljeg zadovoljenja sopstvenih potreba (Isto).

Brzina obavljanja transakcija

U tradicionalnom bankarstvu potrebno je utrošiti vrijeme vezano za dolazak u filijalu i povratak iz nje. Pored toga, klijenti troše vrijeme dok čekaju u redu, popunjavaju razne formulare, kao i dok čekaju da se obave odgovarajuće transakcije (Radojević, 2009). Internet bankarstvo predstavlja daleko brži način za obavljanje bankarskog poslovanja, pošto u ovom slučaju klijenti troše vrijeme samo prilikom prijave na svoj račun i dok čekaju završetak transakcije (Isto; Brčić, 2018).

Fleksibilnost

U odnosu na tradicionalne, internet banke su puno fleksibilnije i lakše im je da izvrše potrebne promjene po pitanju svojih usluga, pošto imaju mogućnost da kroz stalnu interakciju sa klijentima, osluškujući njihove predloge i mišljenja, veoma dobro reaguju na njihove potrebe i želje. Na taj način klijentima se pruža potpunija usluga i utvrđuje njihova lojalnost prema banci (Mihailović, 2009).

Bolje upravljanje novčanim sredstvima

Kako je svaka transakcija zabilježena u digitalnom obliku, klijenti mogu da vide njihovu istoriju, te da ih analiziraju prije pokretanja nove transakcije. To, svakako, doprinosi boljem administriranju sopstvenih sredstava (Kulshrestha i Dave, 2016; Brčić, 2018; Rončević, 2006; Chavan, 2013).

Razvoj marketinga

Kroz interaktivan odnos sa klijentima banke formiraju baze podataka klijenata, koje se najčešće koriste u marketinške svrhe (Mihailović, 2009).

Ograničenja internet bankarstva

U vezi sa ograničenjima internet bankarstva, izdvojili bismo pitanja koja se tiču sigurnosti prilikom korišćenja bankarskih usluga, nepostojanju jedinstvene zakonske regulative u ovoj oblasti i odbojnosti prema inovacijama (Radojević, 2009).

Sigurnosna pitanja

Sistem internet bankarstva ne uliva potpunu sigurnost korisnicima, pošto su oni veoma osjetljivi po pitanju njihovog novca i teško prihvataju bilo kakav rizik od krađe i zloupotrebe njihovih podataka (Brčić, 2018).

Sa rastućom popularnošću otvorenih mreža kao što je internet i elektronskom razmjenom informacija i novca između geografski udaljenih lokacija, sigurnost transakcije ima ključni značaj za rast i razvoj ovog servisa. Banke koje upotrebljavaju elektronsku razmjenu podataka u zatvorenim mrežama (intranet) obezbjeđuju sigurnost utvrđivanjem identiteta i autorizacijom ljudi koji pristupaju mreži. Kad je riječ o otvorenim mrežama, postoje mehanizmi tehničke i pravne zaštite da spriječe neautorizovani pristup i hakerske napade. Međutim, određenim kriptografskim tehnologijama koje uključuju digitalni potpis, definiše se nova infrastruktura čija je glavna prednost viši nivo integriteta poruke i verifikacija pristupa (Milutinović, 2012).

Nepostojanje jedinstvene zakonske regulative

Internet, kao globalni sistem komuniciranja, zahtjeva postojanje odgovarajuće pravne regulacije, koja treba da definiše potrebe poslovnih subjekata i korisnika usluga. Zakonska regulativa koja se tiče

interneta, kao i poslovanja putem ove globalne računarske mreže, razlikuje se od zemlje do zemlje. Sjedinjene Američke Države i Evropska unija, kao dva najrazvijenija dijela svijeta, imaju različita stavove po ovom pitanju, pri čemu Evropska unija ima daleko liberalnije gledište u vezi sa privatnošću poslovanja u odnosu na SAD. Pristup EU bazira se na potpunoj anonimnosti i privatnosti poslovanja, dok se pristup SAD zasniva na potpunoj kontroli poslovanja, transakcija i podataka od strane državnih organa.

Odbojnost prema inovacijama

Svakako da postoji veliki broj ljudi koji se teško odlučuju da promjene ustaljene navike, pa tako i one koje se tiču načina korišćenja bankarskih usluga. Oni su jednostavno takvog psihološkog profila da zaziru od bilo kakvih noviteta i potrebno im je puno vremena dok odluče da se pozabave novim stvarima. To najčešće biva tek onda kad nemaju drugog izbora, odnosno kad ih životne okolnosti natjeraju da tako nešto učine. Pored toga, još uvijek postoji značajan postotak stanovništva, posebno kad se radi o starijoj populaciji, koja nema dovoljno iskustva u korišćenju interneta, ali i samih računara. Tim prije što je riječ o savremenim tehničko-tehnološkim dostignućima sa kojima nijesu imali prilike da se sretnu tokom svoga školovanja. Stoga je sasvim jasno zašto internet bankarstvo nije njihov izbor. Isto tako, potrebno je obratiti pažnju i na jedan aspekt, koji je, reklo bi se, naročito karakterističan za naše prostore, a koji se tiče odnosa korisnika i bankarskog službenika. Službenici su tu da svojim savjetima i pojašnjenjima pomognu korisnicima u vezi bilo koje stvari, koja kod njih izaziva nedoumice i poteškoće (uplate, isplate, podizanje novca i sl). Tako se dešava da dođe do promjene postojećih uslova za pojedine bankarske usluge, tj. da se klijantima izađe u susret po osnovu raznih pitanja (vraćanje pozajmica, odlaganje rokova i dr), što kod internet bankarstva jednostavno nije moguće.

Mobilno bankarstvo

Pojam mobilnog bankarstva

Mobilno bankarstvo, kao najnovija faza u razvoju elektronskog bankarstva, odnosi se na pružanje i korišćenje bankarskih usluga posredstvom mobilnih telekomunikacionih uređaja (Okiro i Ndungu, 2013; Jokić i saradnici, 2017). Najšire posmatrano, mobilno bankarstvo obuhvata tri vrste usluga i to: mobilno računovodstvo, mobilne brokerske usluge i mobilne finansijske informacije (Mladenović, 2014).

Mobilno računovodstvo odnosi se na mogućnost klijenata da koriste usluge vezane za račun koji posjeduju kod banke. Ovdje nije riječ samo o transakcijama, već i o drugim bankarskim uslugama. Shodno tome, bankarske usluge koje se mogu obavljati uz pomoć mobilnih telefona su: transferi novca, trajni nalog za plaćanje računa, prenos novca na podračune, prijavljivanje polise osiguranja i drugo. Mobilne brokerske usluge podrazumijevaju kupovinu ili prodaju finansijskih instrumenata kao što su hartije od vrijednosti, akcije i sl.

Mobilne finansijske informacije odnose se na informativne poruke koje mogu biti ponuđene klijentu, posebno ili zajedno sa brokerskim i transakcionim bankarskim uslugama. Radi se o informacijama koje se tiču računa klijenata (upiti stanja, posljednje transakcije, informacije o kreditnim karticama, lokacije ekspozitura i bankomata) i informacijama koje su vezane za finansijska tržišta (kursna lista, tržišne kamatne stope, izvještaji o akcijama, informacije o bankarskim proizvodima i ponudama) (Sanader, 2014).

Načini realizacije mobilnog bankarstva

Mobilno bankarstvo moguće je realizovati preko govorne pošte (Interactive Voice Response), poruka (Short Messaging Service), bežičnog pristupa (Wireless Access Protocol) i samostalne klijentske mobilne aplikacije (Standalone Mobile Application Clients) (Isto).

Govorna pošta (IVR) omogućava interakciju klijenta i banke kroz pozivanje IVR broja koji prati meni sa različitim opcijama biranja poruka i čitanja informacija (Isto). Govorna pošta je bila u upotrebi i prije postojanja mobilnih telefona, kada se IVR broj pozivao preko fiksnog telefona, što je i danas čest slučaj (Kasumović, 2019).

Sljedeći način realizacije mobilnog bankarstva podrazumijeva da klijenti bankama šalju tekstualne poruke preko SMS centra, a da banke na isti način odgovaraju, pružajući klijentima odgovarajuće specifične informacije.

Koncept korišćenja bežičnog pristupa (WAP), odnosno WAP kanala je sličan internet bankarstvu. Tako klijenti putem WAP pretraživača na mobilnom uređaju, dobijaju potrebne informacije po pitanju bankarskih proizvoda i usluga.

Samostalne klijentske mobilne aplikacije (SMAC) omogućavaju klijentima da vrše složene bankarske transakcije, sa visokim stepenom pouzdanosti i bezbjednosti (Isto).

Prednosti mobilnog bankarstva

U vezi sa prednostima i ograničenjima mobilnog bankarstva, treba reći da se oni u suštini poklapaju sa prednostima i ograničenjima koji su karakteristični za internet bankarstvo, s obzirom na činjenicu da korisnici mobilne telefonije danas uglavnom posjeduju pametne telefone, čija je upotreba praktično nezamisliva bez njegove povezanosti sa internetom. Stoga ćemo u daljem izlaganju istaći ono što u vezi sa odnosnim pitanjem, u mobilnom bankarstvu posebno dolazi do izražaja.

Jedna od najvažnijih prednosti mobilnog bankarstva je potpuna nezavisnost u odnosu na lokaciju, što znači da je pristup sopstvenom bankovnom računu moguć bukvalno na bilo kom mjestu i u bilo koje vrijeme (Sirovica, 2020).

Iz navedene činjenice da pametni telefoni imaju pristup internetu, slijedi prednost mobilnog bankarstva koja se odnosi na automatsku i trenutnu povezanost klijenta sa bankom.

Proaktivna funkcionalnost takođe predstavlja preimućstvo mobilnog bankarstva, a tiče se činjenice da savremene informacione tehnologije omogućavaju klijentima da izaberu uslugu ili proizvod o kojima bi željeli da budu informisani (uglavnom putem SMS-a) (Sanader, 2014).

Preko mobilnog bankarstva i mobilne tehnologije banke imaju bolji uvid u ponašanje klijenata tokom korišćenja bankarskih proizvoda i usluga. Tako, na primjer, ukoliko klijent koristi karticu prilikom plaćanja, uvijek je informisan kada je transakcija izvršena i za koji iznos je zadužen račun. Pored toga, banka može da obavijesti klijenta o stanju kredita, datumu kada rata dospijeva za plaćanje ili da je račun dospio za plaćanje i nizu drugih transakcija i informacija od značaja za klijenta. Sa druge strane, klijentima je omogućen uvid u svoje depozite i plaćanja koja dospijevaju (Isto).

Ograničenja mobilnog bankarstva

U smislu ograničavajućih faktora mobilnog bankarstva, koji često onemogućavaju njegovu široku upotrebu izdvojili bi nebezbednost, nelagodnost (usljed nedostupnosti i preopterećenosti sistema) i visoke troškove korišćenja (zbog cijena interneta na mobilnom uređaju).

Pitanja vezana za bezbednost korišćenja mobilnih uređaja za mobilno bankarstvo ogledaju se u fizičkoj sigurnosti mobilnog uređaja (krađa), sigurnosti otvaranja bankarske aplikacije (nepostojanje lozinke), autentifikaciji uređaja od strane provajdera usluga, preinicijaciji transakcije, kao i zaštiti podataka koji se transmituju i koji se čuvaju na mobilnom uređaju.

Istraživanja su pokazala da oko 51 % klijenata nema povjerenja u bezbednost vršenja bankarskih usluga preko mobilnih telefona, dok njih 74% smatra da je korišćenje mobilnih kanala povezano sa brojnim rizicima. Isto tako, 88% klijenata je ubjeđena da postoji mogućnost prevarnih radnji putem mobilnih uređaja.

Kad je riječ o ograničenjima mobilnog bankarstva treba pomenuti i probleme koji se tiču tehničkog aspekta, a vezani su za korišćenje raznovrsnih aplikacija na istom mobilnom uređaju, koje nijesu autentifikovane i zaštićene; neobezbjeđenost Wi-Fi konekcija, kao i viruse koji se šire mrežom (Isto).

Strategijske opcije mobilnih distributivnih kanala banke

Postoje tri vrste strategija za izlazak banaka na mobilno tržište i to: Super operator, Prodavac specijalista i Brend biro strategija (Đorđević, 2007).

Kod Super operater strategije mobilni operater povećava svoje kapacitete (mreže, infrastrukturu, broj korisnika) i proširuje svoje usluge, dobijajući ulogu agenta za plaćanje. Banke zavise od distribucije mobilnog operatera, koji, s druge strane, mora biti tijesno povezan sa njima. Ova strategija je dominantna na japanskom tržištu.

Prodavac specijalista strategija pretpostavlja postojanje velikog raznovrsnog tržišta, na kome kupci pokušavaju da pronađu željene proizvode, pri čemu oni žele da se obrate odgovarajućem specijalisti, koji bi im pomogao prilikom obavljanja transakcije. Naravno, ova strategija podrazumijeva da banke pronalaze mogućnost za uspostavljanje mobilnih prodajnih kanala.

U okviru Brend biro strategije zadatak banke je da agregira različite ponude i napravi homogeno tržište za svoje korisnike. Najveću korist banke mogu imati od ove strategije, pošto njenom primjenom mobilni operater gubi dominantnu ulogu, koju naročito ima u Super operater strategiji (Isto).

Pošto identifikuje najpovoljniju strategiju, banka razvija potrebnu tehnologiju i ispituje tržišta, kako bi izvukla maksimalnu korist iz cijelog procesa. U tom cilju, banka mora da identifikuje partnere koji imaju slične ciljeve sa ciljevima banke, kao i da uspostavi saradnju sa njima.

Pored toga, potrebno je da banka kreira različite portfolio usluge za različite segmente tržišta. To znači da na svakom segmentu tržišta treba ispitati koji su pravi, a koji potencijalni korisnici, te koje su njihove potrebe.

Isto tako, svim zaposlenim banka treba da omogući lak pristup informacijama o klijentima, koje su uglavnom razbacane na više mjesta, odnosno nalaze se u više različitih sistema. To se postiže primjenom data mining tehnika.

Takođe, treba naznačiti da uspješnost mobilnog poslovanja, odnosno investiranja u ovakav vid pružanja bankarskih usluga, zahtjeva usklađenost sa opštom strategijom banke. To znači da prelazak banke na novu tehnologiju mora biti precizno definisan i usaglašen sa dotadašnjom informacionom infrastrukturom banke (Isto).

Od posebnog značaja je da banka sprovede detaljnu analizu u vezi sa povraćajem investiranih sredstava (Return on Investment-ROI). Da bi se odredio ROI najprije je potrebno da se izračunaju, koliko je to moguće, troškovi i koristi projekta. Zatim se računa neto sadašnja vrijednost projekta (NSV), da bi se potom podjelom neto sadašnje vrijednosti sa ukupnim troškovima dobila vrijednost koja se odnosi na povraćaj investiranih sredstava.

Na osnovu navedenih pokazatelja banka se odlučuje da li će se, i uolikoj mjeri, opredijeliti za pružanje usluga putem mobilnih uređaja. Nije lako dati generalni sud o tome da li uvođenje mobilnog bankarstva donosi banci pozitivan povraćaj uloženi sredstava. To najviše zavisi od toga koliko je rješenje prihvaćeno na tržištu (Isto).

Na strani ROI jednačine koja se odnosi na korist, valja konstatovati da mobilne aplikacije mogu poboljšati lojalnost kupca, povećati prodaju i prihode, te smanjiti operativne troškove drugih kanala usluživanja. U početku je većinu od ovih koristi vrlo teško prikazati, a većina od njih se osjeti tek na duže staze.

Troškovna strana ROI može široko varirati, što zavisi od načina implementacije mobilnog rješenja, cijene licenciranog softvera i tome slično. Međutim, uopšteno posmatrano može se govoriti o troškovima koji se tiču hardvera, a koji obuhvataju mobilne terminale (telephone, PDA uređaje i sl), servere, WLAN mreže i drugo, kao i troškove koji se odnose na softver, razvoj i integraciju, a uključuju licencu za platforme, razvojni alat, troškove razvoja i integracije sa back-end sistemima i postojećim WEB aplikacijama.

Da bi smanjila operativne troškove i maksimizirala ROI, potrebno je da banka preduzme mjere koje podrazumijevaju analizu investiranja, podjelu rizika sa proizvođačima softvera, korišćenje postojeće infrastrukture i obezbjeđivanje odgovarajuće podrške za mobilno rješenje. Analiza investiranja pretpostavlja upoznavanje sa svim raspoloživim mobilnim rješenjima, u smislu ispitivanja njihove funkcionalnosti i mogućeg stepena prihvatanja od strane korisnika.

U okviru podjele rizika sa proizvođačima softvera, treba istaći da neke softverske kuće kao zamjenu za vrijednost softvera dobijaju prihod u zavisnosti od uspješnosti implementiranog rješenja, koja se, na primjer, može određivati prema broju korisnika ili, pak, vrijednosti obavljenih transakcija.

Korišćenje postojeće infrastrukture, sasvim je jasno, znači da mobilno rješenje treba da se oslanja na postojeću IT strukturu banke, što pored smanjenja troškova implementacije rješenja, olakšava i njegovu samu implementaciju.

Obezbjeđivanje odgovarajuće podrške za mobilno rješenje podrazumijeva, recimo, da banka, u cilju osiguravanja da se njena aplikacija izvršava na odgovarajućim uređajima, što dovodi do ostvarenja dodatog prihoda, obezbjeđi mobilne uređaje za svoje korisnike (Isto).

Veoma je važno naglasiti da izračunavanje povraćaja investiranih sredstava za mobilno bankarstvo nije linearan proces. U svrhu određivanja koristi koje neka banka ima od mobilnog rješenja mogu se koristiti tehnike operacionog istraživanja, kao što je to, na primjer, teorija igara. U tim istraživanjima najznačajniji parametar kojeg je potrebno pratiti je lojalnost klijenata. Ukoliko klijent dobija pravu informaciju u pravo vrijeme, njena vrijednost se povećava. U tom smislu moguće je govoriti o lokacijskoj, personalizacijskoj i vremenskoj vrijednosti informacije.

Kod lokacijske vrijednosti informacije, vrijednost informacije se povećava ako se ona isporučuje na pravu lokaciju, tj. lokaciju na kojoj treba da se preduzme odgovarajuća akcija.

Personalizacijska vrijednost informacije ukazuje na činjenicu da je vrijednost informacije povećana, ukoliko je ona upodobljena prema očekivanjima primalaca i ukoliko oni mogu efikasno da je upotrijebe.

U vezi sa vremenskom vrijednošću informacije treba reći da povećanje vrijednosti informacije zavisi od njenog pravovremenog isporučivanja, tj. od vremena kada akcija treba da se preduzme (Đorđević, 2007).

Fintek kompanije

Fintek kompanije su organizacije koje koriste savremene tehnologije, u svrhu efikasnijeg pružanja finansijskih usluga (Lekić, 2020). Smatra se da ove organizacije imaju veliki potencijal da izvrše radikalne promjene čitavog finansijskog sektora (Krstić i Tešić, 2016).

Usluge, odnosno područja poslovanja koje pokrivaju fintek kompanije su sljedeće:

- Zajmovi – kreiraju se platforme koje mijenjaju način na koji se zajmovi uzimaju, npr. platforme koje spajaju zajmodavce s ljudima kojima su zajmovi potrebni.
- Blockchain tehnologija/kriptovalute – koriste se moderne blockchain tehnologije u cilju pružanja finansijskih usluga.
- Regtech – korištenje softvera kako bi se upravljalo rizicima, kontrolisala usklađenost sa regulativom, kao i u revizorske svrhe.
- Lične finansije – uvođenje različitih alata s namjenom upravljanja računima i praćenjem ličnih finanija.
- Plaćanje/naplata – pojava kompanija koje na brz i jednostavan način omogućuju plaćanje i naplatu.
- Osiguranje – kompanije prodaju osiguranje preko digitalnih kanala ili kreiraju softver za upravljanje osiguranicima.
- Tržišta kapitala – prodaja i trgovina tržišnim papirima, kreiranje analiza i alata za finansijske institucije.
- Upravljanje imovinom – kreiraju platforme za upravljanje imovinom, kao i analitičkih alata koji to omogućavaju.
- Prenos novca – kreiraju se softver za međunarodni prenos novca.
- Nekretnine – kreditiranje hipoteka, alati za finansiranje hipoteka i dr. (Petruša, 2020).

Za usluge Fintek kompanija klijenti se odlučuju iz nekoliko razloga, kao što su: jednostavno otvaranje i podešavanje računa za željena plaćanja, niže naknade, pristup razvijenim proizvodima i uslugama, bolju internet podršku i usluge, bolji kvalitet usluga i dr. Fintek kompanije konstantno rade na unapređenju i pojednostavljenju svojih usluga i inovacija, što utiče na njihov rast, ali istovremeno i pad korisnika bankarskih usluga (Krstić i Tešić, 2016).

Jasno je da su fintek kompanije fleksibilnije i inovativnije od banaka, međutim, banke takođe imaju neke značajne prednosti u odnosu na fintek kompanije, kao što su: visok nivo povjerenja klijenata, stručnost, veliku bazu podataka o klijentima, resurse, iskustvo (naročito u pravnom dijelu) i sl. Stoga se smatra da će u budućnosti preovladati partnerstvo i udruživanje ovih dviju finansijskih organizacija, a ne rivalstvo među njima (Vasić, 2019).

Tako, banke mogu fintek kompanijama obezbjediti kapital i pristup njihovoj velikoj bazi korisnika, dok fintek kompanije mogu ponuditi bankama inovativne i korisne tehnologije, koje bi im pomogle u poboljšanju bankarskog iskustva za klijente. To znači da će banke koje se opredjele za ovaj vid saradnje, moći da uz manje troškove pružaju novu vrijednost i usluge, sa većom brzinom njihove realizacije, i na taj način povećaju svoju konkurentnost (Maričić, 2018).

Neke od najznačajnijih Fintech kompanija su: PayPal, Amazon, Facebook, Apple, Walmart, Google i dr. (Lekić, 2020).

Zaključak

Brza ekspanzija informacionih tehnologija, koje su našle primjenu u svim sferama ljudske djelatnosti i koje u savremenom svijetu predstavljaju osnovnu pokretačku snagu privrednog razvoja, neizbežno su morale dovesti i do promjena u načinu poslovanja bankarskog sektora. Od tradicionalnog bankarstva, koje je neizostavno podrazumijevalo odlazak na bankarske šaltere radi korišćenja bankarskih usluga, došlo se do toga da su one danas dostupne klijentima u njihovim domovima ili na bilo kojem drugom mjestu. Sve to, prvenstveno kao rezultat razvoja interneta i mobilnih tehnologija, koji je doveo i do razvoja novih formi bankarskog poslovanja, poznatih pod nazivom internet bankarstvo i mobilno bankarstvo.

Internet bankarstvo, kao proces u kojem je klijent u mogućnosti da pristupi, kontroliše i koristi svoj račun putem interneta, pojavljuje se u vidu informacionog (prenošenje informacija o proizvodima i uslugama, koji se nude klijentima i javnosti uopšte), komunikativnog (omogućava interakciju između sistema banke i klijenata) i transakcionog (omogućava klijentima da izvršavaju transakcije) internet bankarstva.

U okviru internet bankarstva mogu se izdvojiti tri osnovne vrste usluga: konsolidovanje računa i obavljanje plaćanja; obavljanje finansijskog transfera između različitih računa i podnošenje aplikacija za kredite, osiguranja i sl.

Mobilno bankarstvo odnosi se na pružanje i korišćenje bankarskih usluga posredstvom mobilnih telekomunikacionih uređaja. Riječ je o uslugama mobilnog računovodstva (usluge vezane za račun koji posjeduju kod banke), mobilnim brokerskim uslugama (kupovinu ili prodaju finansijskih instrumenata kao što su hartije od vrijednosti, akcije i sl) i mobilnim finansijskim informacijama (informativne poruke koje mogu biti ponuđene klijentu, posebno ili zajedno sa brokerskim i transakcionim bankarskim uslugama).

Mobilno bankarstvo moguće je realizovati preko govorne pošte (Interactive Voice Response), poruka (Short Messaging Service), bežičnog pristupa (Wireless Access Protocol) i samostalne klijentske mobilne aplikacije (Standalone Mobile Application Clients).

Strategijskim opcijama mobilnih distributivnih kanala banke su: Super operator (mobilni operater povećava svoje kapacitet i proširuje svoje usluge, dobijajući ulogu agenta za plaćanje), Prodavac specijalista (klijenti se obraćaju specijalisti radi pomoći prilikom obavljanja transakcije) i Brend biro scenario (banka agregira različite ponude i pravi homogeno tržište za svoje korisnike).

S obzirom na sve veći broj korisnika interneta i mobilnih uređaja, kao i sve veću informatičku pismenost populacije, sasvim je jasno da će se buduće poslovanje banaka bazirati na internet i mobilnom bankarstvu. Tome svakako doprinosi i savremeni, ubrzani i stresni, način života, kojeg karakteriše krilatica „vrijeme je novac“, tako da ljudi ne žele da gube svoje dragocjeno vrijeme na bespotrebni odlazak u banku i čekanje u redovima pred šalterom, a sve uz obostrano zadovoljstvo, kako klijenta, tako i banke.

Upotreba interneta i mobilnih uređaja takođe je neizostavna i u poslovanju fintek kompanija, koje još uvijek predstavljaju konkurenciju bankarskom sektoru, ali s tendencijom prevladavanja konkurentskih i uspostavljanja partnerskih odnosa među njima.

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THE IMPACT OF MOBILE TECHNOLOGIES AND THE INTERNET ON THE FUTURE OF BANKING OPERATIONS

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Summary

The rapid development of information technologies, which have found application in all areas of human activity, has also led to changes in the way of banking operations. Traditional banking inevitably involved going to the bank to use banking services. Nowadays, bank services are available to clients in their homes or anywhere else. This is primarily the result of the development of the Internet and mobile technologies, which has led to the development of new types of banking operations, known as internet banking and mobile banking. These two types of banking will represent the backbone of future banking activity.

Keywords: internet; internet banking; mobile banking; advantages; limitations; fintech companies

JEL classification: G21, L86

Introduction

The application of modern information technologies in the banking sector has led to the improvement of banking operations. The number of information that can be processed is increasing and practically becoming unlimited, and given that it spreads without space and time limitations, the banking market has become global. In addition, there was also the development of new products and services, as well as changes in the volume and structure of demand on the market for banking products and services. The advantages that information technology has brought to the banking sector are multiple and are reflected in the reduction of business costs, the improvement of clients' awareness of banking products and services, innovation in business and the offer of standard and non-standard products and services, increasing the efficiency of the offer, as well as placing emphasis on the client as an individual. The new technological infrastructure leads to changes in the way of performing communication activities, as well as in the way of building relationships between clients and the bank, which results in more efficient mutual communication and business. The aforementioned advantages influenced the emergence and gradual development of electronic banking, which include a set of diverse ways of performing financial transactions, using information and telecommunication technologies (Sanader, 2014).

Six phases can be observed in the framework of the development of electronic banking, which relate to the automation of counter operations; ATMs; payment cards and POS devices; home banking; internet banking and mobile banking (Jokić et al., 2017).

The automation of banking operations meant equipping bank counters with computer equipment, which made it much easier for clients to access documentation, as well as to fill it out.

The purpose of introducing ATMs was to enable clients to access the bank's services at any time, that is, to use their account 24 hours a day.

POS terminals are characterized by the fact that they enable the availability of banking services at the point of product payment.

Home banking allows large users to rent lines and maintain a direct connection with banking applications, in order to make payments and transactions easier, while the telephone service provides quick access to all necessary information (Ibid.).

Internet banking and mobile banking, as the latest stages of electronic banking, will be discussed in the following presentation.

Internet banking

The Development of Internet Banking

The development of Internet banking, which can be defined as a process in which the client is able to access, control and use his account via the Internet, is closely related to the development of the World Wide Web (WWW) (Brčić, 2018).¹

The beginnings of internet banking date back to 1983, when the Bank of Scotland offered users of the NBS10 (Nottingham Building Society) network an internet banking service in Great Britain, known as Homelink. The use of this service, which was available to a small number of users, was achieved using a television and a telephone, in such a way that data from the database was searched for and browsed through the telephone line on the television.

In October 1994, Internet banking, developed by the financial institution Stanford Federal Credit Union¹¹, appeared for the first time in the United States of America. Internet banking services could be used by all clients of this financial institution.

In May 1995, Wells Fargo Bank created the first web banking program for doing business on the Internet (Mihailović, 2009). In the same year, Security First Network Bank (SFNB) was founded in Atlanta (USA), the first bank that conducted its business activities exclusively via the Internet (Ibid; Brčić, 2018).

In April 1996, according to the Online Banking Report, there were one million Internet banking users in the United States. The following year, internet banking had 4.2 million users, and in 2001, that number increased to 19 million. Certainly, the growth trend of internet banking is present in all countries of the world, and there are more and more banks that decide to conduct their business activities only via the internet (Brčić, 2018).

¹ This is one of the many definitions of internet banking, as different authors describe this term in different ways. Nevertheless, the essence of these descriptions is basically the same and boils down to the presentation of Internet banking, as the act of conducting financial mediation on the Internet. (Ibok i Ikoh, 2014).

Types of Internet Banking

There are three types of Internet banking: informational, communicative, and transactional Internet banking (Mihailović, 2009).

Informational internet banking (also known as basic level service) is the transmission of information about products and services offered to clients and the public in general. Communication between the bank and the client takes place via e-mails, and this type of transmission of marketing information can be done via the bank's server or website. The vulnerability of communications made via the server is relatively low, which is not the case if the website is the main communication channel between the bank and the client. Therefore, the bank undertakes various preventive measures in order to prevent risks.

Communicative internet banking, which is also called simple transactional website, enables interaction between the bank's system and clients. Clients can receive instructions, as well as information about products and services. In addition, they can inquire about the current account balance, fill out a loan application, and receive and send e-mails, but they cannot make a single monetary transaction from their account. These services are connected to the bank's internal system, so the risks are higher as a result. That is why it is necessary for management to develop appropriate prevention measures, and for controllers to monitor the system and warn of unauthorized intrusions into the bank's internal network (Ibid).

Transactional internet banking or, as it is also called, full transactional website, enables clients to carry out transactions. Clients have the possibility to use their accounts in such a way that they can transfer money, pay various bills, buy and sell securities, etc. As the connection between the server of the Internet bank's internal network and the external network is direct, this form of connection is the most vulnerable, and therefore must be subject to the strongest control (Ibid).

Types of Services in Internet Banking

Most of the world's banks offer the following business and services in their online business: exchange business; opening and using loan accounts; checking balances on clients' accounts; opening and using checking accounts; paying bills electronically; using the credit card system; securities trading; suspension of payments; opening and using current accounts; verification of transactions from the previous period on all client accounts; electronic transfers between accounts; e-mail correspondence; opening and using deposit accounts; performing brokerage services for bank clients; approval of mortgage and other loans; and advisory services (Radojević, 2009).

In terms of the systematization of Internet banking services, three basic types of services can be singled out, namely: account consolidation and making payments; making financial transfers between different accounts and submitting applications for loans, insurance, etc.

The first type of service is the most popular and allows the bank's clients to consolidate a large number of bills they pay each month, as well as withdraw funds from their bank accounts through a single order. Another type of service allows clients to transfer funds from account to account, without going to branches or places where ATMs are located.

Similar to the previous one, the third type of services is also characterized by effects related to saving clients' time (Ibid).

Advantages of Internet Banking

Compared to traditional banking, internet banking offers numerous advantages, both for banks and for users of their services. We will list some of them, which we consider to be the most important:

Lower operating costs

Banks lower operating costs by closing a certain number of branches, and clients pay a lower commission for banking services, which are often free with internet banking (Ibid, Mihailović, 2009).

No spatial limit

Internet banking allows the client to use the services of a bank regardless of his current location. Of course, it is necessary that the user has an open account in that bank, that there is a computer with Internet access at the place from which they conduct business, and that the user knows all the codes they need to access the online bank and their account. In traditional banking, the client is tied to the place and country where there are branches of the bank where they have an open account (Radojević, 2009).

No time limit on Internet banks

Unlike traditional banking, which involves performing banking operations during the bank's working hours, this is not the case with internet banking, because transactions can be performed 24 hours a day, every day of the year. This means that users, if they have an internet connection, can access the bank whenever they want (Brčić, 2018; Mihailović, 2009).

A wide range of banking services

The increasing presence of information technologies in the modern world has caused banks, if they want to remain competitive in the market, to develop and provide non-traditional services, which has led to the fact that the number of services offered by banks to their clients via the Internet is quite large. Thus, banks benefit from the development of new services, and clients benefit from the expansion of the banks' offer, in terms of better satisfaction of their own needs (Ibid).

Speed of transactions

In traditional banking, it is necessary to spend time arriving at the branch and returning from it. In addition, clients waste time while waiting in line, filling out various forms, as well as while waiting for appropriate transactions to be made (Radojević, 2009). Internet banking represents a much faster way to perform banking business, since in this case clients spend time only when logging into their account and while waiting for the completion of the transaction (Ibid; Brčić, 2018).

Flexibility

Compared to traditional banks, internet banks are much more flexible and it is easier for them to make the necessary changes in terms of their services, since they have the ability to respond very well to their needs and wishes through constant interaction with clients, listening to their suggestions and opinions. In this way, clients are provided with a more complete service and their loyalty to the bank is established (Mihailović, 2009).

Better cash management

As each transaction is recorded digitally, clients can see their history and analyze them before starting a new transaction. This, of course, contributes to better administration of one's own funds (Kulshrestha & Dave, 2016; Brčić, 2018; Rončević, 2006; Chavan, 2013).

Development of marketing

Through an interactive relationship with clients, banks form client databases, which are most often used for marketing purposes (Mihailović, 2009).

Internet Banking Limitations

In connection with the limitations of internet banking, we would single out issues related to security when using banking services, the absence of a single legal regulation in this area and aversion to innovation (Radojević, 2009).

Safety questions

The internet banking system does not instil complete security in users, since they are very sensitive about their money and hardly accept any risk of theft and misuse of their data (Brčić, 2018).

With the growing popularity of open networks such as the Internet and the electronic exchange of information and money between geographically distant locations, transaction security is of key importance for the growth and development of this service. Banks that use electronic data exchange in closed networks (intranet) provide security by establishing the identity and authorization of people accessing the network. When it comes to open networks, there are technical and legal protection mechanisms to prevent unauthorized access and hacker attacks. However, certain cryptographic technologies that include a digital signature define a new infrastructure whose main advantage is a higher level of message integrity and access verification (Milutinović, 2012).

Absence of uniform legislation

The Internet, as a global communication system, requires the existence of appropriate legal regulation, which should define the needs of business entities and users of services. Legal regulations regarding the Internet, as well as business through this global computer network, differ from country to country. The United States and the European Union, as the two most developed parts of the world, have different views on this issue, with the European Union having a far more liberal view of business privacy than the US. The EU approach is based on complete anonymity and privacy of business, while the US approach is based on complete control of business, transactions and data by state authorities.

Aversion to innovation

Certainly, there is a large number of people who have a hard time deciding to change established habits, including those concerning the way of using banking services. They simply have such a psychological profile that they shy away from any novelties, and it takes them a long time before they decide to deal with new things. This usually only happens when they have no other choice, that is, when life

circumstances force them to do something like that. In addition, there is still a significant percentage of the population, especially when it comes to the elderly population, who do not have enough experience in using the Internet, as well as the computers themselves. Especially since this concerns modern technical and technological achievements that they did not have the opportunity to learn during their schooling. Therefore, it is quite clear why internet banking is not their choice.

In the same way, it is necessary to pay attention to one aspect, which, one would say, is particularly characteristic of our premises, which concerns the relationship between the user and the bank employee. The officials are there to help users with their advice and clarifications regarding any matter that causes doubts and difficulties for them (payments, withdrawals, withdrawals, etc.). This is how it happens that there is a change in the existing conditions for certain banking services, i.e., to meet clients on the basis of various issues (repayment of loans, postponement of deadlines, etc.), which is simply not possible with internet banking.

Mobile Banking

The Concept of Mobile Banking

Mobile banking, as the latest stage in the development of electronic banking, refers to the provision and use of banking services through mobile telecommunication devices (Okiro and Ndungu, 2013; Jokić et al., 2017). Broadly speaking, mobile banking includes three types of services: mobile accounting, mobile brokerage services and mobile financial information (Mladenović, 2014).

Mobile accounting refers to the ability of clients to use services related to the account they have with the bank. This is not only about transactions, but also about other banking services. Consequently, banking services that can be performed with the help of mobile phones are: money transfers, standing order for bill payment, money transfer to sub-accounts, applying for an insurance policy and others.

Mobile brokerage services include the purchase or sale of financial instruments such as securities, shares, etc.

Mobile financial information refers to informative messages that can be offered to the client, separately or together with brokerage and transaction banking services. This includes information related to customer accounts (balance inquiries, recent transactions, credit card information, locations of branches and ATMs) and information related to financial markets (exchange rates, market interest rates, stock reports, information on banking products and offers) (Sanader, 2014).

Ways of Implementing Mobile Banking

Mobile banking can be implemented via voicemail (Interactive Voice Response), messages (Short Messaging Service), wireless access (Wireless Access Protocol) and Standalone Mobile Application Clients (Ibid).

Voicemail (IVR) enables interaction between the client and the bank by calling the IVR number followed by a menu with various options for selecting messages and reading information (Ibid). Voicemail was in use even before the existence of mobile phones, when the IVR number was called through a landline, which is still a common case today (Kasumović, 2019).

Such a way of realizing mobile banking implies that clients send text messages to banks via the SMS centre, and that banks respond in the same way, providing clients with appropriate specific information.

The concept of using wireless access, or WAP channels, is similar to internet banking. Thus, clients receive the necessary information about banking products and services through a WAP browser on a mobile device.

Stand-alone client mobile applications (SMAC) enable clients to perform complex banking transactions, with a high degree of reliability and security (Ibid).

Advantages of Mobile Banking

Regarding the advantages and limitations of mobile banking, it should be said that they essentially coincide with the advantages and limitations that are characteristic of internet banking, given the fact that mobile phone users today mostly own smartphones, the use of which is practically unimaginable without its connection with the internet. Therefore, we will further highlight what is especially prominent in mobile banking in connection with the relevant issue.

One of the most important advantages of mobile banking is its complete independence in relation to location, which means that access to one's own bank account is possible literally in any place and at any time (Sirovica, 2020).

From the mentioned fact that smartphones have access to the Internet, the advantage of mobile banking follows, which refers to the automatic and immediate connection of the client with the bank.

Proactive functionality is also an advantage of mobile banking, and it concerns the fact that modern information technologies allow clients to choose a service or product about which they would like to be informed (mainly via SMS) (Sanader, 2014).

Through mobile banking and mobile technology, banks have a better insight into the behaviour of clients when using banking products and services. So, for example, if the client uses a card when paying, they are always informed about when the transaction was made and for what amount the account was debited. In addition, the bank can inform the client about the status of the loan, the date when the instalment is due for payment or that the account is due for payment, and a number of other transactions and information of importance to the client. On the other hand, clients are given insight into their deposits and payments that are due (Ibid).

Limitations of Mobile Banking

In terms of the limiting factors of mobile banking, which often prevent its wide use, we would single out insecurity, discomfort (due to the unavailability and overload of the system) and high costs of use (due to the prices of the Internet on a mobile device).

Issues related to the security of using mobile devices for mobile banking are reflected in the physical security of the mobile device (theft), the security of opening the banking application (absence of a password), the authentication of the device by the service provider, the pre-initiation of the transaction, as well as the protection of data that is transmitted and stored on the mobile device.

Research has shown that around 51% of clients do not trust the security of banking services via mobile phones, while 74% of them believe that the use of mobile channels is associated with numerous risks. Likewise, 88% of clients are convinced that there is a possibility of fraudulent actions via mobile devices.

When it comes to the limitations of mobile banking, we should also mention problems related to the technical aspect, which are related to the use of various applications on the same mobile device, which are not authenticated and protected; unsecured Wi-Fi connections, as well as viruses that spread over the network (Ibid).

Strategic Options of the Bank's Mobile Distribution Channels

There are three types of strategies for banks to enter the mobile market: Super operator, Specialist seller and Brand bureau strategy (Đorđević, 2007).

With the Super operator strategy, the mobile operator increases its capacities (networks, infrastructure, number of users) and expands its services, taking on the role of payment agent. Banks depend on the distribution of the mobile operator, which, on the other hand, must be closely related to them. This strategy is dominant in the Japanese market.

The specialist seller strategy assumes the existence of a large diverse market, in which customers try to find the desired products, where they want to contact the appropriate specialist, who would help them during the transaction. Of course, this strategy implies that banks find the opportunity to establish mobile sales channels.

Within the Brand Bureau strategy, the bank's task is to aggregate different offers and create a homogeneous market for its users. Banks can benefit the most from this strategy, since by applying it, the mobile operator loses its dominant role, which it especially has in the Super operator strategy (Ibid.).

Having identified the most advantageous strategy, the bank develops the necessary technology and examines the markets, in order to extract the maximum benefit from the whole process. To this end, the bank must identify partners that have similar goals to the bank's goals, as well as establish cooperation with them.

In addition, it is necessary for the bank to create different portfolio services for different market segments. This means that in each segment of the market it is necessary to examine which are the real and which are the potential users, and what are their needs.

Likewise, the bank should provide all employees with easy access to customer information, which is generally scattered in several places, i.e., found in several different systems. This is achieved by applying data mining techniques.

Also, it should be noted that the success of mobile business, i.e., investing in this type of providing banking services, requires compliance with the bank's general strategy. This means that the bank's transition to new technology must be precisely defined and harmonized with the bank's previous information infrastructure (Ibid).

It is of particular importance that the bank conducts a detailed analysis regarding the return on investment (ROI). In order to determine the ROI, it is first preferable to calculate, as far as possible, the costs and benefits of the project. Then the net present value of the project (NPV) is calculated, and then by dividing the net present value by the total costs, a value related to the return of invested funds is obtained.

Based on the aforementioned indicators, the bank decides whether, and to what extent, it will decide to provide services via mobile devices. It is not easy to make a general judgment about whether the introduction of mobile banking brings the bank a positive return on invested funds. It mostly depends on how well the solution is accepted on the market (Ibid).

On the benefit side of the ROI equation, it should be noted that mobile applications can improve customer loyalty, increase sales and revenues, and reduce operational costs of other service channels. In the beginning, most of these benefits are very difficult to show, and most of them are felt only in the long run.

The cost-side ROI can vary widely, depending on the way the mobile solution is implemented, the price of the licensed software, and the like. However, in general, we can talk about costs related to hardware, which include mobile terminals (telephones, PDA devices, etc.), servers, WLAN networks, etc., as well as costs related to software, development and integration, which include platform license, development tool, development costs and integration with back-end systems and existing WEB applications.

In order to reduce operational costs and maximize ROI, it is necessary for the bank to undertake measures that include investment analysis, risk sharing with software manufacturers, use of existing infrastructure and provision of appropriate support for the mobile solution.

The investment analysis assumes familiarity with all available mobile solutions, in terms of testing their functionality and the possible level of acceptance by users.

As part of risk sharing with software manufacturers, it should be noted that some software companies receive income as a substitute for the value of the software depending on the success of the implemented solution, which, for example, can be determined by the number of users or the value of the transactions performed.

Using the existing infrastructure clearly implies that the mobile solution should rely on the existing IT structure of the bank, which, in addition to reducing the costs of implementing the solution, also facilitates its implementation itself.

Providing adequate support for a mobile solution implies, for example, that the bank, in order to ensure that its application is executed on appropriate devices, which leads to the realization of additional income, should provide mobile devices for its users (Ibid).

It is very important to emphasize that calculating ROI for mobile banking is not a linear process. Operational research techniques, such as game theory, can be used to determine the benefits of a mobile solution for a bank. In those studies, the most important parameter that needs to be monitored is client loyalty. If the client receives the right information at the right time, its value increases. In this sense, it is possible to talk about the locational, personalization and time value of information.

With the locational value of information, the value of information increases if it is delivered to the right location, i.e., the location where appropriate action should be taken.

The personalization value of the information indicates the fact that the value of the information is increased, if it is adapted to the expectations of the recipients and if they can use it effectively. Regarding the time value of information, it should be said that increasing the value of information depends on its timely delivery, i.e., on the time when the action should be taken (Đorđević, 2007).

Fintech companies

Fintech companies are organizations that use modern technologies for the purpose of more efficient provision of financial services (Lekić, 2020). It is believed that these organizations have a great potential to make radical changes in the entire financial sector (Krstić and Tešić, 2016). The services, i.e., business areas covered by fintech companies are as follows:

- Loans - platforms are created that change the way loans are taken, e.g., platforms that connect lenders with people who need loans.
- Blockchain technology/cryptocurrencies – modern blockchain technologies are used in order to provide financial services.
- Regtech – the use of software to manage risk, control regulatory compliance, and for audit purposes.
- Personal finances – introduction of various tools aimed at managing accounts and monitoring personal finances.
- Payment/billing – emergence of companies that enable payment and billing in a quick and simple way.

- Insurance – companies sell insurance through digital channels or create software to manage policyholders.
- Capital markets – sales and trading of marketable securities, creation of analyses and tools for financial institutions.
- Asset management – they create platforms for asset management, as well as analytical tools that enable this.
- Money transfer – software is created for international money transfer.
- Real estate - mortgage lending, mortgage financing tools, etc. (Petruša, 2020).

Clients choose the services of Fintech companies for several reasons, such as: easy opening and setting up of accounts for desired payments, lower fees, access to developed products and services, better internet support and services, better quality of services, etc. Fintech companies constantly work on improving and simplifying their services and innovations, which affects their growth, but at the same time the decline of users of banking services (Krstić and Tešić, 2016).

It is clear that fintech companies are more flexible and innovative than banks, however, banks also have some significant advantages compared to fintech companies, such as: high level of customer trust, expertise, large customer database, resources, experience (especially in legal part) etc. Therefore, it is considered that in the future, partnership and association of these two financial organisations will prevail, rather than the rivalry between them (Vasić, 2019). Thus, banks can provide fintech companies with capital and access to their large customer base, while fintech companies can offer banks innovative and useful technologies that would help them improve the banking experience for customers. This means that banks that have opted for this type of cooperation will be able to provide new value and services at lower costs, with a higher speed of their realization, and thus increase their competitiveness (Maričić, 2018).

Some of the most important Fintech companies are: PayPal, Amazon, Facebook, Apple, Walmart, Google and others. (Lekić, 2020).

Conclusion

The rapid expansion of information technologies, which have found application in all spheres of human activity and which in the modern world represent the basic driving force of economic development, inevitably had to lead to changes in the way the banking sector operates. From traditional banking, which inevitably involved going to bank counters to use banking services, it has come to the point that today they are available to clients in their homes or in any other place. All this, primarily as a result of the development of the Internet and mobile technologies, which led to the development of new forms of banking business, known as internet banking and mobile banking.

Internet banking, as a process in which the client is able to access, control and use his account via the Internet, appears in the form of information (transmitting information about products and services offered to clients and the public in general), communicative (enables interaction between systems banks and clients) and transactional (enables clients to carry out transactions) internet banking.

Three basic types of services can be distinguished within internet banking: consolidating accounts and making payments; making financial transfers between different accounts and submitting applications for loans, insurance, etc.

Mobile banking refers to the provision and use of banking services through mobile telecommunication devices. These are mobile accounting services (services related to the account they have with the bank), mobile brokerage services (purchase or sale of financial instruments such as securities, shares, etc.) and mobile financial information (informational messages that can be offered to the client, separately or together with brokerage and transaction banking services).

Mobile banking can be implemented via voice mail (Interactive Voice Response), messages (Short Messaging Service), wireless access (Wireless Access Protocol) and Standalone Mobile Application Clients.

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Mobile banking can be implemented via voice mail (Interactive Voice Response), messages (Short Messaging Service), wireless access (Wireless Access Protocol) and Standalone Mobile Application Clients.

The strategic options of the bank's mobile distribution channels are: Super operator (the mobile operator increases its capacity and expands its services, taking on the role of a payment agent), Specialist seller (clients turn to a specialist for help when performing a transaction) and Brand Bureau scenario (the bank aggregates various offers and creates a homogeneous market for its users).

Considering the increasing number of internet and mobile device users, as well as the increasing information literacy of the population, it is quite clear that the future business of banks will be based on internet and mobile banking. The modern, fast-paced and stressful way of life, which is characterised by the catchphrase "time is money", certainly contributes to this, so that people do not want to waste their precious time unnecessarily going to the bank and waiting in lines in front of the counter, all with the mutual satisfaction of both the client and the bank.

The use of the Internet and mobile devices is also indispensable in the business of fintech companies, which still represent competition to the banking sector, but with a tendency to overcome competition and establish partnership relations between them.

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