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VIDLJIVOST SRPSKIH BANAKA U ORGANSKIM REZULTATIMA PRETRAGE - ZAJEDNIČKI PROBLEMI I PROPUŠTENE PRILIKE

Rezime

Predmetni rad nastoji da analizira organsku vidljivost veb-sajtova na internet pretraživačima, na primeru banaka u Srbiji, koristeći istraživački pristup prema korišćenju internet pretraživača kao jednog od vodećih kanala za informisanje, prodaju i interakcije u bankarskom sektoru. U primenjenoj metodologiji, kao izvor za prikupljanje podataka o učinku veb-sajtova korišćeni su veb alati i SEO softveri. Generisani podaci su potom upoređeni sa faktorima za rangiranje finansijskih veb-sajtova, s ciljem da se odredi učinak srpskih banaka na Google pretraživaču, kao i zajednički problemi i propuštene prilike u vidljivosti organskih rezultata pretrage. Rezultati sprovedenog istraživanja pokazuju da najveće banke u zemlji koriste optimizaciju veb-sajta na internet pretraživačima kao strategiju internet marketinga, ali da im nedostaje strateško usmerenje u oblastima relevantnosti veb sadržaja, brzini mobilnih veb-sajtova, generisanja veb saobraćaj sa sajtova-preporuka, imejl marketinga, sticanja kvalitetnih linkova i kod signala sa društvenih mreža.

Ključne reči: banke; internet pretraživači; optimizacija veb-sajta na internet pretraživačima (SEO); Google; Srbija

JEL: G20, L86

ORGANIC SEARCH VISIBILITY OF SERBIAN BANKS - COMMON AILMENTS AND LOST OPPORTUNITIES

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Summary

This paper aims to analyze the organic search engine visibility applied on the case of Serbian banks, employing an exploratory approach to the use of search engines as one of the major information, sales and interaction channels in the banking sector. In the methodology, web crawling and SEO software tools have been used as a source for collecting the website performance data. The generated data was intersected with some of the finance industry ranking factors, aiming to determine how the Serbian banks are performing on Google and what are their common ailments and lost opportunities in organic search visibility. The research findings showed that the country's largest banks are using search engine optimization as an online marketing strategy, but it still lacks strategic orientation in the areas of content relevance, mobile site speed, web traffic from referrals, social and email marketing, backlinking quality and social signals.

Keywords: Banks; Search Engines; Search Engine Optimization (SEO); Google; Serbia

JEL: G20, L86

Uvod

Današnji bankarski sektor ima dva lica; jedno koje se vodi porastom digitalnih bankarskih rešenja, što dovodi do stvaranja inovativnih usluga i nastanka fintek brendova, koji klijente stavljaju u centar svojih strategija. Drugo lice proizilazi iz tradicionalnog modela bankarstva koje koči regulativa, nasleđena tehnologija i kruta organizaciona struktura, što čini banke prilično konzervativnim i nevoljnim da eksperimentišu sa novim tehnologijama i prodajnim kanalima (Econsultancy, 2017). Iz perspektive korisnika finansijskih usluga, digitalne tehnologije i promene u ponašanju potrošača zahtevaju ponudu koja se razlikuje od univerzalnog bankarskog modela, ograničenog na usluge koje se pružaju preko fizičkog prisustva (filijale). Masovni prihvrat interneta i pametnih telefona u 21. veku zahteva promenu načina pružanja finansijskih usluga, s obzirom da tehnologija pruža udobnost trenutnog zadovoljenja potreba i besprekorno više-kanalno iskustvo u vreme, na mestu i sa uređaja koji korisniku najviše odgovara. Marketinški stručnjaci iz finansijskog sektora slažu se sa ovim trendovima; u Istraživanju digitalnih trendova koje je sprovedla konsultantska firma Econsultancy, davanje prednosti korisničkom iskustvu putem ciljanja, personalizacije i upravljanja potrošačkim ciklusom označeni su kao najviši prioriteti (2017: 5).

Za potrošače, transparentnost i poverenje su ključne teme kada je u pitanju novac. Imajući u vidu izreku „S verom u Google“ koji proizilazi iz činjenice da se Google, nakon preporuka rođaka i prijatelja, nalazi na drugom mestu po poverenju potrošača (Edelman, 2015), za pružaoce finansijskih usluga ključno je da budu vidljivi na ovom, globalno najpopularnijem internet pretraživaču. Budući da je u pitanju novac klijenata, marketinški stručnjaci u finansijskom sektoru moraju održavati trajno i sigurno poslovno prisustvo na Google pretraživaču, što se može postići kreiranjem relevantnog sadržaja korisnicima i veb uslugama koje zadovoljavaju njihove potrebe (Searchmetrics, 2017: 6). Vidljivost na Google pretraživaču može se postići putem organskih i plaćenih rezultata pretrage, koji se ponekad sinergijski kombinuju kako bi se povećale posete veb sajtu i vidljivost

brenda na internetu (Gill, 2008; Kritzinger i Weideman, 2015). Što se veb sajt bolje rangira na stranici sa rezultatima internet pretrage, veća je verovatnoća da će korisnici posetiti veb sajt (Engel et al., 2012). Osim samog prisustva na internetu, sve je važnije da veb sajtovi budu bolje rangirani od konkurencije na stranici sa rezultatima internet pretrage (Moreno i Martinez, 2013: 564), gde banke nisu izuzetak s obzirom na visoku konkurentnost u sektoru. Osim toga, jedna od prednosti koju imaju marketinški stručnjaci u bankama je obim podataka koji se prikuplja o posetiocu veb sajta i o njegovom ponašanju prilikom pretrage. Optimizacija veb sajta odnosi se na preobraćanje tih informacija u korisne uvide, koji pomažu bankarskim marketinškim stručnjacima da ostvare svoje ciljeve, poput otkrivanja vrste sadržaja i funkcionalnosti kojima korisnici interneta daju prednost, davanja saglasnosti za korišćenje ličnih podataka, generisanja više potencijalnih kupaca i unakrsne prodaja usluga (Sitespect, 2015). U tom smislu, optimizacija veb sajta na pretraživaču (SEO) se definiše se kao primena praksi usmerenih ka tome da učine veb sajt prijateljskim za robote internet pretraživača i da poboljšanju vidljivost veb sajta na stranici sa rezultatima internet pretrage (Dickinson i Smit, 2015: 11). Cilj SEO-a je povećati poziciju ili rang veb sajta na pretraživaču, čime se povećava njegova posećenost, što treba da dovede do povećanja prodaje (Kritzinger i Weideman, 2015: 9).

Ne samo da je korisno uključiti SEO prakse koje pomažu Google pretraživaču da pronađe, prikupi i razume veb stranice, nego je takođe i važno obratiti pažnju i delovati kada pretraživač izvrši promene u svojim algoritmima za rangiranje veb sajtova (Askey i Arlitsch, 2014: 57). Internet pretraživači nude uslugu pretraživanja interneta, koristeći sopstvene softvere za indeksiranje veb sajtova koji se zovu veb-popisivači, pauci ili botovi. Roboti analiziraju veb sajtove prateći linkove između stranica i ključne reči na njima, koje potom indeksiraju i dodaju svojoj bazi podataka veb sajtova prema njihovoj relevantnosti (Weideman, 2009). Pretraživači i njihovi algoritmi nisu neutralni ni nezavisni alati (Haider, 2016), već rangiraju veb sajtove prema širokom rasponu faktora. Za Google se smatra da koristi više od 250 faktora u svom algoritmu rangiranja veb sajtova, od

Introduction

The today's banking sector shows two faces; the one being driven forward by the rise of digital banking solutions, resulting in innovative services and fin-tech brands that put the customer at the heart of their strategy. The other face comes from the traditional banking model that is being held back by regulation, inhibitive technology and rigid organizational structures, which makes the banks rather conservative and unwilling to experiment with new technologies and sales channels (Econsultancy, 2017). From the financial service users' perspective, digital technology and behavioral changes demand offers different than the universal banking model limited to the services distributed through physical presence. The massive acceptance of the internet and smartphone devices in the 21st century requires a change in financial servicing, as technology provides the comfort of instant gratification and seamless omnichannel experience at the time, place and from the device which most suits the customer needs. Financial service marketers agree with these trends; in the Digital Trends Survey conducted by digital consulting firm Econsultancy, prioritizing the customer experience with targeting, personalization and customer journey management were marked as their highest priorities (2017: 5).

Transparency and trust are the key issues for consumers when it comes to money matters. Having in mind the motto "In Google we trust" coming from the fact that, after referrals from relatives and friends, Google is second-ranked in terms of the trust of consumers (Edelman, 2015), it is essential for financial service providers to be visible on this globally most popular search engine. Because consumers' money is at stake, financial industry marketers must maintain a persistent and secure presence on Google, achieved by offering consumers relevant content and services that meet their needs (Searchmetrics, 2017: 6). Visibility on Google can be achieved through organic and paid listings, which are sometimes synergistically combined to boost website traffic and brand visibility (Gill, 2008; Kritzinger and Weideman, 2015). The higher a website ranks in the search engine results page (SERP), the

greater the likelihood that users will visit the site (Enge *et al.*, 2012). In addition to the mere presence on the web, it is increasingly important for businesses that their site be ranked more highly than those of their competitors on SERP (Moreno and Martinez, 2013: 564), where banks are not an exception having in mind the high sectoral competitiveness. Besides, one of the advantages conferred to banking marketers is the sheer volume of data generated about the website visitor and customer behavior. Website optimization is all about converting that information into customer-benefiting insights which, in turn, help banking marketers meet their business goals such as discovering what online visitors prefer in terms of usability and content, increasing opt-ins, generating more leads, and cross-selling their services (Sitespect, 2015). In that respect, search engine optimization (SEO) is defined as the implementation of practices aimed at making the website friendly to search engine crawlers and improving their visibility on the SERPs (Dickinson and Smit, 2015: 11). The goal of SEO is to increase a website's ranking with search engines, thus increasing the traffic to the website which should result in increased sales (Kritzinger and Weideman, 2015: 9).

It is not only useful to incorporate SEO practices that help Google to reach, harvest, and understand websites, but it is also important to pay attention and act accordingly when the search engine recommends changes to the website practices (Askey and Arlitsch, 2014: 57). A search engine is a search service that uses its own indexing software called crawlers, spiders or bots that examine the websites following the links between pages and then indexing them in a database of website listings according to their relevancy (Weideman, 2009). Search engines and their algorithms are neither neutral nor independent tools (Haider, 2016), ranking webpages according to a broad range of factors. Google is said to employ more than 250 factors in its ranking algorithm, most of which held as closely guarded secrets (Luh *et al.*, 2016). Although the exact algorithms used differ across search engines, the major players in the field (e.g., Google, Bing) rank and display search results by taking into account the similarity of a website's content to the users' query, as well as

kojih se većina drži kao strogo čuvana tajna (Luh et al., 2016). Iako se korišćeni algoritmi razlikuju među pretraživačima, glavni igrači (npr. Google, Bing) rangiraju i prikazuju rezultate pretraživanja uzimajući u obzir relevantnost sadržaja veb stranice prema upitu korisnika, kao i autoritet stranice, koji se odnosi na broj linkova koji stiže sa visoko kvalitetnih veb sajtova (Wenyu et al., 2010: 263). Efikasni algoritam rangiranja staviće dokumente koji su najrelevantniji prema upitu korisnika na vrh rezultata pretrage, u kom slučaju korisnik ne mora da zađe dublje od prve stranice internet pretrage (Hariri, 2011: 598). Konkretno, većina korisnika i ne gleda dalje od prve stranice internet pretrage, što znači da ako se veb sajt ne pojavljuje na prvoj stranici rezultata pretrage za određene ključne reči koje su relevantne za poslovanje, veb sajt gubi na vidljivosti, a sa njom i na dobrom delu veb saobraćaja (Pérez-Montoro i Codina, 2017).

Za bolje razumevanje procesa optimizacije veb sajtova, pojedine kompanije koje se bave mernim jedinicama u internet pretrazi i SEO softverima, na redovnoj osnovi objavljuju izveštaje o faktorima rangiranja veb sajtova na pretraživačima. Na primer, Moz objavljuje izveštaj o faktorima rangiranja dva puta godišnje na bazi ispitivanja stručnjaka koji se bave internet pretragom i analize podataka 50 vodećih rezultata pretraživanja za više od 10.000 upita u različitim kategorijama (Luh et al., 2016: 240). Searchmetrics od 2012. godine objavljuje svoju godišnju studiju faktora rangiranja, koja koristi koeficijent korelacije ranga kako bi ukazala na odnos između rangiranja i vrednosti određenih funkcija (npr. ukupnog broja spoljnih linkova) kod rezultata pretrage. Smatra se da faktori koji imaju relativno visok koeficijent korelacije imaju jak uticaj na rangiranje veb sajta na internet pretraživačima (ibid: 241).

Kada je reč o Srbiji, Google-ov potrošački barometar (*Google Consumer Barometer*) pokazuje da je gotovo 70% građana svakodnevno na internetu, od kojih je 98% mlađe od 25 godina. Za mnoge od njih pretraživanje je mobilno, jer se preko 50% internet pretrage obavlja preko mobilnih uređaja. Kada pristupe internetu, 82% korisnika ga koristi kao primarni izvor informacija. Kako bi pomogli srpskim potrošačima da donesu ispravnu odluku

pri kupovini, marketinški stručnjaci treba da osiguraju prisutnost na svim digitalnim dodirnim tačkama između potrošača i brenda, gde su internet pretraživači najbolje ocenjeni u grupi sa veb sajtom, društvenim mrežama i sajtovima za poređenje. Google, kao najdominantniji pretraživač u Srbiji, koristi se kroz ceo potrošački ciklus, od pronalaženja informacija, do upoređivanja ponuda, elektronske kupovine i deljenja post-prodajnog iskustava sa drugima.

Kroz naše kabinetsko istraživanje, naišli smo na nekoliko akademskih studija i stručnih knjiga koje se bave marketingom na internet pretraživačima (Skiera et al, 2010; Wenyu et al, 2010; Kritzinger i Weideman, 2015), optimizacijom veb sajta na pretraživačima (Moreno i Martinez, 2013; Egri i Bayrak, 2014; Enge et al, 2015; Scott, 2015; Pérez-Montoro i Codina, 2017) i faktorima za rangiranje na Google pretraživaču (Hariri, 2011; Askey i Arlitsch, 2014; Su et al., 2014; Mavridis i Symeonidis, 2015; Luh et al., 2016), ali se nijedan izvor nije odnosio na vidljivost veb sajtova u organskim rezultatima pretrage i na faktore za rangiranje finansijskih veb sajtova na internet pretraživačima iz SEO perspektive. Identifikujući istraživački jaz u ispitivanju veb sajtova bankarskog sektora iz perspektive internet pretraživača, i zahvaljujući sve većoj važnosti digitalnih marketinških kanala u potrošačkom ciklusu korisnika finansijskih usluga, analizirali smo SEO poziciju vodećih banaka u Srbiji s ciljem da identifikujemo zajedničke probleme i propuštene prilike u sticanju vidljivosti na pretraživaču u organskim rezultatima pretrage.

Ciljevi i metode istraživanja

Sa 29 banaka na 7 miliona građana i deset najvećih banaka koje drže 78,8% tržišnog udela u ukupnoj neto bilansnoj aktivni (Narodna banka Srbije, 2018), srpski bankarski sektor možemo okarakterisati kao monopolizovan i sa previše banaka. Shodno tome, veb sajtovi deset najvećih banaka prema veličini bilansne aktive bili su primarni izvor podataka za naše istraživanje. Prikupljanje podataka za analizu sprovedeno je na ujednačen i objektivan način tokom prve polovine avgusta 2018. godine, kada se banke

the authority of the site, which relates to how many high-quality websites link to the focal site in the search engine (Wenyu *et al.*, 2010: 263). An effective ranking algorithm will put documents most relevant to the query at the top of the results list, and in such a case the user possibly does not need to go beyond the first page of the SERP (Hariri, 2011: 598). Specifically, most users do not look beyond the first page of SERP, which means that if a website does not appear on the first page of the search engine for certain keywords relevant to the business, it loses on visibility and with it a solid part of its traffic (Pérez-Montoro and Codina, 2017).

For a better understanding of the website optimization process, several search metrics and SEO software companies regularly publish their study reports on search engine ranking factors. For example, Moz publishes a ranking factor report bi-annually based on the survey of search professionals and data analysis results of the top 50 search results for over 10,000 queries across multiple categories (Luh *et al.*, 2016: 240). Searchmetrics has been publishing its annual ranking factors study since 2012, which uses the rank correlation coefficient to indicate the relationship between the rankings of search results and the feature values (e.g. total number of external links) of the search results on a per-feature basis. The factors that have relatively high correlation coefficient are considered to have strong influence on the search engine ranking (ibid: 241).

When it comes to Serbia, the Google Consumer Barometer indicates that close to 70% of the citizens are online daily, 98% of which are under 25 years of age. For many of them the search is mobile, as over 50% of the internet search is done by means of mobile devices. Once online, 82% of users use the internet as the primary source of information. To help the Serbian consumers make the right purchase decision, marketers should ensure their presence across all relevant digital touchpoints, where search engines are scored the highest in the group with brand/retailer websites, social networks and price comparison websites. Google, as the most dominant search engine in Serbia is used throughout the entire purchasing circle, from information retrieval, to the comparison of offers, online purchase and

sharing of the post-purchase experience with others.

Through our cabinet research, we came across several academic studies, technical books dealing with search engine marketing (Skiera *et al.*, 2010; Wenyu *et al.*, 2010; Kritzinger and Weideman, 2015), SEO (Moreno and Martinez, 2013; Egri and Bayrak, 2014; Enge *et al.*, 2015; Scott, 2015; Pérez-Montoro and Codina, 2017) and the Google ranking factors (Hariri, 2011; Askey and Arlitsch, 2014; Su *et al.*, 2014; Mavridis and Symeonidis, 2015; Luh *et al.*, 2016), but none of them referring to the organic search engine visibility and finance sector ranking factors from the SEO perspective. By identifying a research gap in addressing the banking sector websites from the search engine perspective, and due to the gained importance of online channels in the customer journey of financial service users, we have analyzed the SEO position of the leading banks in Serbia, aiming to map the common ailments and lost opportunities in gaining organic visibility on search engines.

Research Objective and Methods

With 29 banks on 7 million citizens and top ten banks holding 78.8% of the market share in terms of total net balance sheet assets (National Bank of Serbia, 2018), the Serbian banking sector can be characterized as overbanked and monopolized. Thus, the websites of the largest ten banks according to assets size were the primary source of data for our research. The data acquisition for the analysis has been performed in a uniform and objective manner during the first half of August 2018, when banks traditionally do not campaign in the media, to avoid the possible bias on the website traffic. The conducted analysis was based on the "White Hat SEO" technics of website optimization on Google, which refers to the best practice examples of the publishing webpages that are useful to humans, while enabling search engines to better understand the structure and content of the website (Scott, 2015: 1). For the data collection and analysis of the selected bank websites, free and paid website crawlers, auditors and SEO software were applied. The role of the deployed tools

većinom ne oglašavaju u medijima, kako bi se izbegao mogući uticaj oglašavanja na veb saobraćaj. Sprovedena analiza bazirana je na tehnikama optimizacije na Google pretraživaču koje se zasnivaju na primerima najbolje prakse (White Hat SEO) kod kreiranja i unapređenja veb-sajtova relevantnih za korisnike, koji istovremeno omogućavaju pretraživačima da bolje razumeju strukturu i sadržaj veb-sajta (Scott, 2015: 1). Za prikupljanje podataka i analizu odabranih veb-sajtova banaka korišćeni su besplatni i plaćeni SEO softveri i veb alatke. Uloga korišćenih alata bila je da se kreću kroz strukturu veb-sajtova i prikupe podatke vezane za učinak, s ciljem dalje analize.

Iako postoji osnovni skup faktora koji se mogu smatrati opštim preduslovom za rangiranje veb-sajtova na pretraživaču, faktori rangiranja mogu se razlikovati od sektora do sektora. Zbog činjenice da su potrebe za sadržajem zasnovanim na namerama korisnika postale previše različite, faktori za rangiranje veb-sajtova na pretraživaču nisu opšte primenjivi na sve veb-sajtove. Iz tog razloga su, u drugoj fazi našeg istraživanja, podaci dobijeni iz primenjenih veb alata i SEO softvera upoređeni sa Searchmetrics faktorima rangiranja finansijskih veb-sajtova. Faktori rangiranja veb-sajtova iz finansijskog sektora zasnivaju se na njihovom upoređivanju sa opštim faktorima rangiranja veb-sajtova na Google pretraživaču, koji pokrivaju sve sektore i služe kao reper (2017: 6).

Imajući na umu podatke koje smo mogli dobiti iz primenjenih alata i softvera, sledeći faktori za rangiranje finansijskih veb-sajtova bili su predmet naše analize: učinak veb-sajtova i izvori veb saobraćaja, domeni najvišeg nivoa, sigurnost veb-sajta (HTTPS), funkcionalnost na mobilnim uređajima, brzina veb-sajta, ključne reči i relevantnost sadržaja, strategija linkovanja i signali sa društvenih mreža.

Na kraju, imajući u vidu organsku vidljivost banaka na pretraživaču u trenutku sprovođenja istraživanja na osnovu učinjenih napora za optimizaciju veb-sajtova, postavili smo sledeća istraživačka pitanja:

P1: Kakav je učinak banaka u Srbiji u organskoj vidljivosti njihovih veb-sajtova na Google pretraživaču?

P2: Koji su im zajednički problemi i

propuštene prilike u organskoj vidljivosti na pretraživaču?

Rezultati

Učinak veb-sajta i izvori saobraćaja

Sprovedena analiza učinka veb-sajtova i odnosnog veb saobraćaja imala je za cilj da utvrdi da li veličina banke korespondira broju prosečnih korisničkih sesija (veb poseta), kao i da definiše sektorske referentne vrednosti u pogledu prosečnog vremena provedenog na veb-sajtu, broju posećenih veb stranica i stopi momentalnog napuštanja sajta. S tim u vezi, stopa momentalnog napuštanja sajta, kao procenat posetilaca koji kratko posećuju samo jednu veb stranicu i zatim napuštaju veb-sajt (Enge et al., 2015: 97) označena je i kao jedan od glavnih faktora rangiranja finansijskih veb-sajtova, jer direktno doprinosi veb saobraćaju i učinku u elektronskoj prodaji.

Iz Tabele 1 možemo zaključiti da neke banke imaju bolje rezultate u broju poseta veb-sajtu od svoje tržišne pozicije (Raiffeisen, Poštanska štedionica), što se može protumačiti činjenicom da imaju veći broj fizičkih lica kao klijenata (podatak koji nije javno dostupan). I obrnuto, Eurobank ima niži rezultat u posetama veb-sajtu u poređenju sa svojom tržišnom pozicijom, što može biti uzrokovano niskim direktnim saobraćajem, lošijom pozicijom po ključnim rečima (prikazano u Tabeli 2 i Tabeli 6) i većim stopama momentalnog napuštanja sajta (31,3%) od svojih referentnih konkurenata (12%). Dalje, kratko vreme provedeno na sajtu u kombinaciji sa malim brojem posećenih veb stranica i visokom stopom napuštanja sajta za Societe Generale ukazuje na nisku relevantnost sadržaja ili sporo učitavanje veb stranica (Willson, 2017). Osvrćući se na indikatore učinka kao što su vreme provedeno na veb-sajtu i broj posećenih veb stranica, banke čiji klijenti provedu više od 6 minuta i konzumiraju više od 7 stranica mogu poslužiti kao referentne vrednosti na srpskom tržištu. Međutim, u nadolazećem periodu očekuje se da će se kod banaka vreme provedeno na sajtu i broj posećenih veb stranica dodatno smanjiti sa porastom mobilnog bankarstva, budući da korisnici često koriste telefone za brze aktivnosti poput provere stanja na računu ili priliva novca (Zand i Cohen, 2016). Na kraju,

was to navigate through the structure of the websites and collect performance-related data for further scrutiny.

Although there is a basic set of factors that can be considered a general requirement for rankings, ranking factors can differ from industry to industry, and are, therefore, not generally applicable for all websites as content demands based on user intent have become too differentiated. For that reason, in the second phase of our research the data which could be extracted by means of the applied tools were intersected with the Searchmetrics finance industry ranking factors. The finance industry ranking factors are based on a comparison of Google ranking factors for finance industry websites with the general ranking factors covering all industries and serving as a benchmark (2017: 6).

Out of the major ranking factors for the finance industry, given the data that could have been extracted from the applied tools and software the following were the subject of our analysis: website performance and traffic sources, top level domains, site security (HTTPS), mobile friendliness, site speed, keywords and content relevance, backlinking strategy and social signals.

Finally, considering the organic visibility of the banks at the moment of carrying out the research, based on website optimization efforts, we have stipulated the following research questions:

RQ1: How are the Serbian banks performing on Google in terms of organic search visibility?

RQ2: What are the common ailments and lost opportunities for banks in organic search visibility?

Results

Website Performance and Traffic Sources

The conducted website performance and traffic analysis were intended to determine whether the size of the bank corresponds to the number of average user sessions (web visits), as well as to define the sectoral benchmarks in terms of average time on site, page views and bounce rate. Furthermore, bounce rates as the percentage of

visitors who shortly visit only one webpage and then leave (Enge *et al.*, 2015: 97) are marked as one of the major finance ranking factors, as they are directly contributing to website traffic and online sales.

From Table 1 we could conclude that some banks have a better performance in user sessions than their market position (Raiffeisen, Poštanska štedionica), which could be explained with the number of retail clients, a figure which is not publicly available. Vice versa, Eurobank has a lower score in sessions when compared to its market position, which could be caused by the lower direct traffic, lower keywords positioning (presented in Table 2 and Table 6) higher bounce rate (31.3%) than its benchmark competitors (12%). Furthermore, the low time on site in combination with the low page views and high bounce rate for Societe Generale indicates a low content relevance or slow-to-load pages (Willson, 2017). Referring to the performance indicators such as time on site and page views, the banks whose customers spend over 6 minutes and consume over 7 pages could serve as benchmarks on the Serbian market. However, in the coming period it is expected that time on site and page views for banks will further decrease with the increase of mobile banking, as customers often use their smartphones for quick activities like checking their balances or seeing whether a deposit cleared (Zand and Cohen, 2016). Finally, for the overall website performance indicators, we could highlight the largest bank at the market - Banca Intesa, as the sectoral benchmark in terms of sessions, time on site, page views and bounce rate.

Table 1: Website performance indicators

Bank	Sessions	Time on Site	Page Views	Bounce Rate
Banca Intesa	961k	00:06:27	8.5	12%
Unicredit	160k	00:02:26	4.8	28.1%
Komercijalna banka	603k	00:06:41	7.3	11.9%
Societe Generale	127k	00:02:14	2.2	53.6%
Raiffeisen	401k	00:06:18	6.7	16.5%
AIK	86k	00:06:29	5.5	16.9%
Eurobank	62k	00:05:00	4.5	31.3%
Erste	248k	00:05:44	7.0	19.0%
Poštanska štedionica	495k	00:03:24	8.3	17.3%
Vojvođanska banka	95k	00:06:25	10.0	16.2%

Source: SimilarWeb, August 2018. (<https://www.similarweb.com/>)

u pogledu sveukupnih pokazatelja učinka veb-sajtova, možemo istaći najveću banku na tržištu - Banca Intesa, kao sektorski reper u pogledu broja sesija, vremena provedenog na sajtu, broja posećenih veb stranica i niske stope momentalnog napuštanja sajta.

Tabela 1: Indikatori učinka veb stranica

Banka	Broj sesija	Vreme provedeno na veb-sajtu	Broj posećenih veb stranica	Stopa momentalnog napuštanja sajta
Banca Intesa	961k	00:06:27	8,5	12%
Unicredit	160k	00:02:26	4,8	28,1%
Komercijalna banka	603k	00:06:41	7,3	11,9%
Societe Generale	127k	00:02:14	2,2	53,6%
Raiffeisen	401k	00:06:18	6,7	16,5%
AIK	86k	00:06:29	5,5	16,9%
Eurobank	62k	00:05:00	4,5	31,3%
Erste	248k	00:05:44	7,0	19,0%
Poštanska štedionica	495k	00:03:24	8,3	17,3%
Vojvođanska banka	95k	00:06:25	10,0	16,2%

Izvor: SimilarWeb, avgust 2018. (<https://www.similarweb.com/>)

Kada je reč o izvorima veb saobraćaja, koji se mogu podeliti na direktne, sajtove-preporuke (referali), internet pretraživanje (organsko/plaćeno), društvene mreže, imejl i veb banere (Kaushik, 2009), Tabela 2 pokazuje da je za većinu banaka glavni izvor saobraćaja direktno pretraživanje, koje se odnosi na pretrage koje uključuju ime banke, veb adresu ili proizvode sa imenom banke (Enge et al., 2015). Budući da je tržišni udeo stranih banaka u Srbiji 77% (Narodna banka Srbije, 2018) i uključuje dobro utemeljene regionalne brendove, ovaj zaključak implicira da se banke u Srbiji oslanjaju na svoj brend kao najjednostavnije rešenje za dobijanje veb saobraćaja. Kada je reč o veb-sajtovima banaka na globalnom nivou, situacija se podudara sa našim nalazima - direktni veb saobraćaj čini oko 50% ukupnog saobraćaja (Pilcher, 2016). Što se tiče referala, tj. veb-sajtova

koji na redovnoj osnovi upućuju saobraćaj ka glavnom veb-sajtu (Kaushik, 2009), prosečna stopa saobraćaja u srpskom bankarskom sektoru iznosi 2,3%, dok referentna stopa za Raiffeisen iznosi 5,8%. Imajući u vidu razgranata poslovna partnerstva u bankarskom sektoru i prosečne

referentne stope od 9% za referale kod sajtova koji se odnose na robu široke potrošnje (Hubspot, 2016), i 23% na svetskom nivou za bankarske veb-sajtove (Pilcher, 2016), srpske banke su uglavnom podbacile u sticanju veb saobraćaja od referala. Za razliku od toga, srpske banke premašuju rezultate u veb saobraćaju od internet pretraživanja, sa prosečnom stopom od 40% u poređenju sa 25% za globalne bankarske veb-sajtove (Pilcher,

2016). Ovaj podatak ukazuje da korisnici finansijskih usluga u Srbiji aktivno pretražuju i upoređuju ponude banaka na Google-u, što se može povezati sa visokom sektorskom konkurencijom i niskom lojalnošću, gde bi 40% klijenata odlučilo da promeni banku u slučaju bolje ponude u drugoj banci (Kamatica, 2014; Faktor Plus, 2015). Pojedine banke takođe treba da razmotre svoju strategiju internet oglašavanja (plaćeni rezultati pretrage), imajući u vidu mali veb saobraćaj ostvaren iz ovog izvora, u poređenju sa referentnom stopom Erste banke od 5,5%. Veb saobraćaj koji dolazi iz društvenih mreža i imejl marketinga nudi neiskorišćeni potencijal za većinu banaka kada se poredi sa referentnim stopama od 6,4% za društvene mreže kod Societe Generale i sa 4,6% u imejl marketingu kod Eurobank.

When it comes to the sources of website traffic, which can be segmented into direct, referrals, search (organic/paid), social, email and display (Kaushik, 2009), Table 2 shows that for most of the banks the main source of traffic comes from direct search, which refers to the queries that involve the bank’s name, domain name or product with bank name (Enge *et al.*, 2015). As the foreign banks’ market share in Serbia is 77% (National Bank of Serbia, 2018) and involves the well-established brands from the region, this finding implicates that the banks in Serbia rely on their brand name as the most convenient solution for gaining search traffic. When it comes to the global banking websites, the situation coincides with our findings - direct traffic accounts for close to 50% of all traffic (Pilcher, 2016). In terms of referrals, i.e. websites that refer steady traffic to the main website (Kaushik, 2009), the average referral traffic rate of the Serbian banking sector is 2.3%, while the benchmark rate for Raiffeisen stands at 5.8%. Having in mind the well-established business partnerships in the banking sector and the average referral rates of 9% for large companies

in the consumer segment (Hubspot, 2016) and 23% for global banking websites (Pilcher, 2016), the Serbian banks are mainly underperforming in gaining the referral traffic. As opposed to that, the Serbian banks are overachievers in search traffic, with the average rate of 40% when compared to 25% for the global banking sites (Pilcher, 2016). This finding indicates that financial service users in Serbia actively search and compare bank offers on Google, which can be related to the high sector competition and low customer loyalty, where 40 percent of clients would decide to change the bank in the event of a better offer in another bank (Kamatica, 2014; Faktor Plus, 2015). Some banks also need to review their online advertising strategy (paid search), having in mind the low traffic achieved from this source and the fact that the benchmark rate of Erste bank amounts to 5.5%. The web traffic coming from social networks and email marketing offers untapped potential for most of the banking websites, when compared to the benchmark rates of 6.4% for social networks (Societe Generale) and 4.6% for email marketing (Eurobank).

Table 2: Website traffic sources

Bank	Direct	Referrals	Search	Social	Mail	Display
			Organic/Paid			
Banca Intesa	62%	0.3%	34.5%	1.1%	2.2%	0.03%
			99.1% / 0.9%			
Unicredit	54.6%	4.2%	38.8%	0.6%	1.6%	0.25%
			99.4% / 0.6%			
Komercijalna banka	68.6%	1.8%	24.5%	1.8%	3.3%	0.02%
			99.8% / 0.2%			
Societe Generale	28.2%	1.5%	61.9%	6.4%	1.5%	0.4%
			95.8% / 4.2%			
Raiffeisen	55.7%	5.8%	36%	0.7%	1.4%	0.4%
			98.3% / 1.7%			
AIK	45.2%	5.2%	47.3%	0.8%	1.6%	0%
			100% / 0%			
Eurobank	37.5%	2%	53.1%	1.6%	4.6%	1.2%
			98% / 2%			
Erste	50%	0.7%	42.4%	2.7%	3.4%	0.8%
			94.6% / 5.5%			
Poštanska štedionica	68.5%	0.5%	29.3%	0.9%	0.9%	0.01%
			100% / 0%			
Vojvođanska banka	60.7%	0.7%	35.7%	2%	0.9%	0%
			100% / 0%			

Source: SimilarWeb, August 2018. (<https://www.similarweb.com/>)

Tabela 2: Izvori saobraćaja na bankarskim veb-sajtovima

Banka	Direktan	Referali	Pretraga	Društvene mreže	Imejl marketing	Veb baneri
			Organska/Plaćena			
Banca Intesa	62%	0,3%	34,5%	1,1%	2,2%	0,03%
			99,1% / 0,9%			
Unicredit	54,6%	4,2%	38,8%	0,6%	1,6%	0,25%
			99,4% / 0,6%			
Komercijalna banka	68,6%	1,8%	24,5%	1,8%	3,3%	0,02%
			99,8% / 0,2%			
Societe Generale	28,2%	1,5%	61,9%	6,4%	1,5%	0,4%
			95,8% / 4,2%			
Raiffeisen	55,7%	5,8%	36%	0,7%	1,4%	0,4%
			98,3% / 1,7%			
AIK	45,2%	5,2%	47,3%	0,8%	1,6%	0%
			100% / 0%			
Eurobank	37,5%	2%	53,1%	1,6%	4,6%	1,2%
			98% / 2%			
Erste	50%	0,7%	42,4%	2,7%	3,4%	0,8%
			94,6% / 5,5%			
Poštanska štedionica	68,5%	0,5%	29,3%	0,9%	0,9%	0,01%
			100% / 0%			
Vojvođanska banka	60,7%	0,7%	35,7%	2%	0,9%	0%
			100% / 0%			

Izvor: SimilarWeb, avgust 2018. (<https://www.similarweb.com/>)

Domeni, bezbednost sajtova i funkcionalnost na mobilnim uređajima

Domeni najvišeg nivoa (TLD) podeljeni su na dve vrste: domeni sa oznakom zemlje (ccTLD) rezervisani za zemlju porekla iz koje se obavlja poslovanje i opšti domeni (gTLD) za oznaku delatnosti, kao što je .org za organizacije i .com za međunarodne poslovne institucije (Krzysztof, 2016). Oznaka za domen zemlje Srbije je .rs (.cpб na ćirilici), a njegovo korišćenje služi kao snažan signal korisnicima i internet pretraživačima da se poslovanje banke nalazi u Srbiji. Iako većina banaka koristi .rs kao svoj domen zemlje (Tabela 3), neke od njih primenjuju druga rešenja kao što su .com i .co.rs (oznaka za poslovne korisnike), što se prema Registru nacionalnih internet domena Srbije (RNIDS) može okategorisati kao nepravilna poslovna praksa.

HTTPS (*Hypertext Transfer Protocol Secure*) je protokol za komunikaciju na internetu, kojim se štiti integritet i poverljivost podataka koji se razmenjuju između korisničkog računara i veb-sajta prilikom veb posete. Imajući u vidu da korisnici finansijskih usluga očekuju sigurno i privatno iskustvo kada posećuju bankarske veb-sajtove, kao i da od jula 2018. godine Google pretraživač Chrome označava HTTP sajtove kao „nebezbedne“ (Robbins, 2018.), apsolutni je prioritet za sve banke da učine svoje veb-sajtove sigurnim. Tabela 3 prikazuje da se Banca Intesa, Komercijalna banka i Poštanska štedionica ne pridržavaju sigurnosnih standarda za veb-sajtove, jer su njihovi sigurnosni protokoli i dalje postavljeni na HTTP-u. Ovaj podatak posebno zabrinjava ako uzmemo u obzir da su Banca Intesa i Komercijalna banka među najvećim bankama koje posluju u Srbiji.

Domains, Website Security and Mobile Friendliness

Top-level domains (TLDs) are divided into two types: country-code TLDs (ccTLDs) reserved for the country for which a website is intended, and generic TLDs (gTLDs) for the sites dedicated to specific purposes, such as .org for organizations and .com for international commercial institutions (Krzysztof, 2016). The ccTLD for Serbia is .rs (.cpō in Cyrillic), and its usage serves as a strong signal to both users and search engines that the bank’s business operations are located in Serbia. Although most of the banks are using .rs as their ccTLD (Table 3), some of them have other solutions such as .com and .co.rs for business users, which according to the Serbian National Internet Domain Registry can be categorized as incorrect business practice.

Next, HTTPS (Hypertext Transfer Protocol Secure) is an internet communication protocol that protects the integrity and confidentiality of data between the user’s computer and the website. Having in mind that financial service users expect a secure and private online experience when using banking websites and that, as of July 2018, Google’s Chrome browser marks non-HTTPS sites as ‘not secure’ (Robbins, 2018), it is an absolute priority for all the banks to showcase secure websites. Table 3 shows that Banca Intesa, Komercijalna banka and Poštanska štedionica failed to comply with the website security standards, as their secure protocols are still set on HTTP. This finding is particularly worrying if we consider that Banca Intesa and Komercijalna banka are amongst the largest banks operating in Serbia.

In 2015, the year when mobile surpassed desktop search, Google officially included mobile-friendliness of a website into its assessment of the search results. The sites with poor mobile experience will not be well ranked or will even be penalized as the pages that are not adapted for mobile devices (Sullivan, 2014; Schubert, 2016). Thus, in 2018 Google launched its mobile-first indexing, which became the prime index for showing web results (Phan, 2016). Google index is now focusing on mobile pages, and desktop pages are phased out when there is a mobile alternative (Costello, 2018: 3). Referring to our research, most of the banks have adjusted to the new mobile-first world confirmed by the Google Mobile friendly tool, with Poštanska štedionica being the only exception, probably because their primary clientele are seniors who are not used to mobile search and/or mobile banking.

Website Speed of the Serbian Banking Sector

Google indicates site speed as one of the major signals used by its algorithm to rank pages (Singhal and Cutts, 2010; Egri and Bayrak, 2014). Thus, taking into consideration the changes of the mobile first index, mobile page speed, or the “Speed Update”, became a major factor for ranking the mobile search results (Schwartz, 2018). The Google Speed Test indicates that the ideal mobile page speed is below 1.5 seconds, while the speed between 1.5-2.5 seconds is tolerable. As the web content continues to grow in its size and complexity, the three key measures can reveal the site speed performance impact: page weight (e.g. heavy/non-optimized

pictures), page requests (browser caching, landing page redirections, long server response time) and page structure (disabled compression, blocking of JavaScript and CSS in above-the-fold content) (Egri and Bayrak, 2014; Scott, 2016).

Table 3: Domains, website security and mobile friendliness

Banka	URL	ccTLD	HTTPS	Mobile
Banca Intesa	http://www.bancaintesa.rs	.rs	No	Yes
Unicredit	https://www.unicreditbank.rs	.rs	Yes	Yes
Komercijalna banka	http://www.kombank.com	.com	No	Yes
Societe Generale	https://www.societegenerale.rs	.rs	Yes	Yes
Raiffeisen	https://raiffeisenbank.rs	.rs	Yes	Yes
AIK	https://www.aikbanka.rs	.rs	Yes	Yes
Eurobank	https://www.eurobank.rs	.rs	Yes	Yes
Erste	https://www.erstebank.rs	.rs	Yes	Yes
Poštanska štedionica	http://www.posted.co.rs	co.rs	No	No
Vojvođanska banka	https://www.voban.rs	.rs	Yes	Yes

Source: Google mobile friendly test, August 2018. (<https://search.google.com/test/mobile-friendly>)

Tabela 3: Domeni, bezbednost sajtova i funkcionalnost na mobilnim uređajima

Banka	URL	ccTLD	HTTPS	Mobilna verzija
Banca Intesa	http://www.bancaintesa.rs	.rs	Ne	Da
Unicredit	https://www.unicreditbank.rs	.rs	Da	Da
Komercijalna banka	http://www.kombank.com	.com	Ne	Da
Societe Generale	https://www.societegenerale.rs	.rs	Da	Da
Raiffeisen	https://raiffeisenbank.rs	.rs	Da	Da
AIK	https://www.aikbanka.rs	.rs	Da	Da
Eurobank	https://www.eurobank.rs	.rs	Da	Da
Erste	https://www.erstebank.rs	.rs	Da	Da
Poštanska štedionica	http://www.posted.co.rs	co.rs	Ne	Ne
Vojvođanska banka	https://www.voban.rs	.rs	Da	Da

Izvor: Google mobile friendly test, avgust 2018. (<https://search.google.com/test/mobile-friendly>)

U 2015. godini, kada je internet pretraga preko mobilnih uređaja premašila računare, Google je zvanično u svoju procenu rezultata pretraživanja uključio funkcionalnost veb-sajtova na mobilnim uređajima. Sajtovi koji nisu (dobro) optimizovani na mobilnim uređajima neće biti dobro rangirani u internet pretrazi, ili će čak biti degradirani (Sullivan, 2014; Schubert, 2016). Shodno tome, 2018. godine Google je promovisao svoj mobilni indeks, koji je postao glavni indeks za prikazivanje rezultata na internet pretraživaču (Phan, 2016). Google indeks se sada usmerava na stranice prilagođene mobilnim uređajima, dok se stranice samo za računare zanemaruju u situaciji kada postoji njihova mobilna alternativa (Costello, 2018: 3). Vezano za naše istraživanje, većina banaka se prilagodila novom mobilnom svetu, što je potvrđeno putem Google alatke za procenu funkcionalnosti sajtova na mobilnim uređajima. Jedini izuzetak je Poštanska štedionica, verovatno zbog činjenice da su njihovi primarni klijenti seniori koji nisu u velikoj meri upućeni na mobilne internet pretrage i/ili mobilno bankarstvo.

Brzina učitavanja veb-sajtova u srpskom bankarskom sektoru

Google označava brzinu učitavanja veb-sajta kao jedan od glavnih faktora koji koristi njegov algoritam u postupku određivanja ranga

stranica (Singhal i Cutts, 2010; Egri i Bayrak, 2014). Imajući u vidu promene koje su nastupile sa uvođenjem primarnog mobilnog indeksa, brzina učitavanja mobilnih veb stranica (*Speed Update*), postala je glavni faktor za rangiranje mobilnih rezultata pretrage (Schwartz, 2018). Google test brzine pokazuje da je idealna brzina učitavanja mobilne stranice ispod 1,5 sekundi, dok se brzina između 1,5-2,5 sekunde smatra zadovoljavajućom. S obzirom na dalji rast veličine/obima i složenosti veb sadržaja, tri ključna faktora mogu uticati na brzinu veb stranica: težina stranice (npr. teške/neoptimizovane slike), zahtevi ka stranicama (privremeno skladištenje veb-podataka, preusmeravanja stranica, spor odgovor servera) i struktura stranice (onemogućena kompresija, blokiranje JavaScript kodova i CSS u sadržajima iznad tačke preloma) (Egri i Bayrak, 2014; Scott, 2016).

Kada je reč o srpskom bankarskom sektoru, većina banaka beleži brzinu učitavanja veb-sajta dužu od idealnih 1,5 sekundi, sa prosečnim vremenom mobilnog učitavanja od 2,4 sekunde (Tabela 4). Ističu se samo Poštanska štedionica i Vojvođanska banka, najpre zbog toga što su im sajtovi tehnički jednostavniji, sa malom težinom veb stranica i malim brojem JavaScript/CSS kodova. Brzina učitavanja veb-sajta utiče i na korisničko iskustvo (UX), jer stranice sa dužim vremenom učitavanja imaju veću stopu momentalnog napuštanja i niže prosečno vreme provedeno na stranici (Enge et al., 2015), što je potvrđeno u slučaju Societe Generale i Eurobank, kada se uporede nalazi iz Tabele 1 sa Tabelom 4.

Referring to the Serbian banking sector, most of the banks record a load time above the ideal 1.5 seconds, with the average mobile load time of 2.4 seconds (Table 4). Only Poštanska štedionica and Vojvodjanska banka stand out from the crowd, mainly because their websites are technically simplified with low page weight and low number of Java Script/CSS codes. Site speed is also important for the user experience (UX), as the pages with a longer load time tend to have higher bounce rates and lower average time on page (Enge et al., 2015), which was confirmed for the case of Societe Generale and Eurobank, when comparing Table 1. with Table 4.

Table 4: Site Speed Scores

Bank	Load Time (sec)	
	Desktop	Mobile
Banca Intesa	1.7	2.2
Unicredit	1.7	2.4
Komercijalna banka	1.7	2.1
Societe Generale	2.8	4.0
Raiffeisen	1.9	2.2
AIK	1.6	1.7
Eurobank	2.1	2.8
Erste	1.9	4.4
Poštanska štedionica	1.3	1.1
Vojvođanska banka	1.4	1.3

Source: Google Speed Test, August 2018. (<https://developers.google.com/speed/pagespeed/insights/>)

Authority of the Banking Sector Websites

Google’s page rank score measures the quality of a web page by assigning weighted numerical value to each incoming link based on the page rank algorithm (Su *et al.*, 2014: 7). Since Google confirmed that page rank is still one of the top-ranking factors in its algorithm (*ibid*), linking to relevant, trustworthy and authoritative sites can help ensure that search engines see website content as credible (Search Engine Land, 2018). Bearing in mind the wish of the banking sector to demonstrate its authority on search engines, a proactive strategy for building backlinks which boosts domain-level and page-level website authority should be at the heart of financial service marketer’s SEO efforts.

When it comes to the Serbian banking sector, Table 5. displays that the size of the bank is not always related to the number of its online recommendations, such in the case of AIK, Eurobank, Erste and Vojvodjanska banka, when compared with Banca Intesa as the benchmark. Those banks clearly don’t apply a backlinking strategy on their websites. In terms of link quality which comes from highly valued governmental (.gov) and educational (.edu) websites, Societe and Unicredit, followed by Banca Intesa, are serving as market leaders.

Table 5: Backlinking quantity and quality

Bank	Backlinks		.GOV		.EDU	
	Reference domains	Reference links	Reference domains	Reference links	Reference domains	Reference links
Banca Intesa	1975	2222278	2	15	11	93
Unicredit	1255	2343498	6	37	13	82
Komercijalna banka	1334	286129	4	21	1	1
Societe Generale	1195	1071772	7	26	9	1812
Raiffeisen	1215	628276	3	17	3	18
AIK	309	70706	1	3	2	4
Eurobank	218	23812	2	4	1	1
Erste	102	28231	1	2	1	1
Poštanska štedionica	939	305101	7	30	2	36
Vojvođanska banka	54	17085	0	0	0	0

Source: Majestic Backlink Analyzer, August 2018. (<https://majestic.com/>)

Tabela 4: Brzina učitavanja veb sajta

Banka	Vreme učitavanja (u sekundama)	
	Računari	Mobilni uređaji
Banca Intesa	1,7	2,2
Unicredit	1,7	2,4
Komercijalna banka	1,7	2,1
Societe Generale	2,8	4,0
Raiffeisen	1,9	2,2
AIK	1,6	1,7
Eurobank	2,1	2,8
Erste	1,9	4,4
Poštanska štedionica	1,3	1,1
Vojvođanska banka	1,4	1,3

Izvor: Google Speed Test, avgust 2018. (<https://developers.google.com/speed/pagespeed/insights/>)

Autoritet sajtova bankarskog sektora

Pozicija veb stranice na Google pretraživaču utvrđuje se na osnovu njenog kvaliteta, koji se dobija dodeljivanjem ponderisane numeričke vrednosti svakom dolaznom linku, na osnovu

PageRank algoritma (Su et al., 2014: 7). Budući da je Google potvrdio da je rang stranice i dalje jedan od najvažnijih faktora u algoritmu (ibid), linkovanje sa relevantnim, pouzdanim i autoritativnim veb sajtovima može pomoći pretraživačima da tretiraju veb sajt kao kredibilan (Search Engine Land, 2018). Imajući u vidu želju bankarskog sektora da demonstrira svoj autoritet na pretraživačima, proaktivna strategija za izgradnju linkova koji povećavaju autoritet veb sajta na nivou domena i na nivou veb stranica treba da bude u središtu SEO napora marketinških stručnjaka u finansijskom sektoru.

Kada je reč o bankarskom sektoru Srbije, u Tabeli 5 je prikazano da veličina banke nije uvek povezana sa brojem internet preporuka, kao što je to slučaj sa AIK bankom, Eurobank, Erste i Vojvođanskom bankom, ako se Banca Intesa uzme kao reper. Pomenute banke očigledno ne poseduju strategiju linkovanja na svojim veb sajtovima. Što se tiče kvaliteta linkova koji dolaze sa visoko vrednovanih državnih (.gov) i obrazovnih (.edu) veb sajtova, Societe i Unicredit su tržišni lideri, iza kojih sledi Banca Intesa.

Tabela 5: Kvantitet i kvalitet linkova

Banka	Ukupni linkovi		.GOV		.EDU	
	Referentni domeni	Referentni linkovi	Referentni domeni	Referentni linkovi	Referentni domeni	Referentni linkovi
Banca Intesa	1975	2222278	2	15	11	93
Unicredit	1255	2343498	6	37	13	82
Komercijalna banka	1334	286129	4	21	1	1
Societe Generale	1195	1071772	7	26	9	1812
Raiffeisen	1215	628276	3	17	3	18
AIK	309	70706	1	3	2	4
Eurobank	218	23812	2	4	1	1
Erste	102	28231	1	2	1	1
Poštanska štedionica	939	305101	7	30	2	36
Vojvođanska banka	54	17085	0	0	0	0

Izvor: Majestic Backlink Analyzer, avgust 2018. (<https://majestic.com/>)

Relevance of the Banking Sector Websites

The use of target keywords related to the business or themes of the site in the HMTL code of webpages (title tag, description tag, headings, alt-tags and URL) affects the website relevance on search engines (Luh *et al.*, 2016; Pérez-Montoro and Codina, 2017). Search engines use the metadata supplied in the webpages to extract keywords and other related information, and use them as index terms in their databases (Zhang and Dimitroff, 2005: 693). Specifically, the webpages with the highest keyword density will be the most relevant, provided that this frequency is not unnatural due to an over optimization of the search engine function (Pérez-Montoro and Codina, 2017).

Based on the findings of Skiera *et al.* (2010) which confirmed that the top 20% of all keywords attract on average 98% of all searches and generate 97% of all clicks, we have extracted from Google Trends the five most popular keywords in the Serbian

banking sector for the last three years - “loans”, “cash loans”, “mortgage loans”, “refinancing loans” and “savings”. This tool includes an interface enabling the analysis of query data accompanied by a simple graphic visualisation of the changing popularity of search terms over time and often in relation to events reported in the news (Haider, 2016: 395). Table 6. shows the banks’ position on SERPs per applied keyword, together with the SEO keywords visibility, or ranking of banks based on the visibility of tested keywords on the top five pages on Google. We could conclude that the Serbian banks are mostly without a keyword strategy, but depending on business priorities, individual banks are optimizing their sites for a specific keyword only (e.g. Erste bank for cash and refinancing loans, Komercijalna banka for mortgage loans and savings). Banca Intesa has the best SEO keyword visibility on Google, followed by Komercijalna banka.

Table 6: Serbian Banks Keywords Visibility

Bank	SEO Visibility of keywords	Loans	Cash Loans	Mortgage Loans	Refinancing Loans	Savings
Banca Intesa	#1	1	4	2	4	1
Unicredit	#5	8	8	6	23	4
Komercijalna banka	#2	4	15	1	5	3
Societe Generale	#3	6	3	4	8	16
Raiffeisen	#6	15	n/a	8	14	n/a
AIK	n/a	17	21	16	16	6
Eurobank	n/a	5	13	18	11	5
Erste	#4	12	2	9	1	8
Poštanska štedionica	#7	19	22	15	15	17
Vojvođanska banka	n/a	28	17	n/a	19	29

Source: Searchmetrics Suite, August 2018. (<https://www.searchmetrics.com/suite/>)

Relevantnost sajtova u bankarskom sektoru

Korišćenje ciljanih ključnih reči povezanih sa delatnošću ili tematikom veb sajta u HMTL kodu (naslovna oznaka, opisna oznaka, naslov veb stranice, opis vizuelnog sadržaja i u veb adresi) utiče na relevantnost sajta na internet pretraživačima (Luh et al., 2016; Pérez-Montoro i Codina, 2017). Internet pretraživači analiziraju meta-podatke kako bi izvukli ključne reči i druge informacije sa veb stranica, i koriste ih kao indeksirane reči u svojim bazama podataka (Zhang i Dimitroff, 2005: 693). Veb stranice sa najvećom gustinom ključnih reči i pojmova smatraće se najrelevantnijim, pod uslovom da učestalost nije neprirodna zbog prekomerne optimizacije (Pérez-Montoro i Codina, 2017).

Na osnovu istraživanja Skiera i saradnika (2010) koje potvrđuje da 20% svih ključnih reči privlači u proseku 98% svih pretraga i da generiše 97% svih klikova, izdvojili smo iz Google trendova pet najpopularnijih ključnih reči u srpskom bankarskom sektoru u poslednje

tri godine - „krediti“, „keš krediti“, „stambeni krediti“, „kredit za refinansiranje“ i „štednja“. Ovaj alat uključuje interfejs koje omogućava analizu podataka iz korisničkih upita, uz jednostavnu grafičku vizualizaciju promenjive popularnosti pojmova za pretragu tokom vremena, često u odnosu na događaje koji su objavljeni u medijima (Haider, 2016: 395). Tabela 6 prikazuje poziciju banaka na prvoj stranici sa rezultatima internet pretrage po primenjenoj ključnoj reči, zajedno sa vidljivošću ključnih reči za SEO, tj. rangiranje banaka na osnovu vidljivosti testiranih ključnih reči na prvih pet stranica na Google-u. Možemo zaključiti da srpske banke uglavnom ne poseduju strategiju ključnih reči, ali zavisno od poslovnih prioriteta, pojedine banke optimizuju svoje sajtove samo za određenu ključnu reč (npr. Erste banka za keš i kredite za refinansiranje, Komercijalna banka za stambene kredite i štednju). Banca Intesa ima najbolju SEO vidljivost ključnih reči na Google-u, a zatim sledi Komercijalna banka.

Tabela 6: Vidljivost ključnih reči kod srpskih banaka

Banka	SEO vidljivost ključnih reči	Krediti	Keš krediti	Stambeni krediti	Kredit za refinansiranje	Štednja
Banca Intesa	#1	1	4	2	4	1
Unicredit	#5	8	8	6	23	4
Komercijalna banka	#2	4	15	1	5	3
Societe Generale	#3	6	3	4	8	16
Raiffeisen	#6	15	bez vidljivosti	8	14	bez vidljivosti
AIK	bez vidljivosti	17	21	16	16	6
Eurobank	bez vidljivosti	5	13	18	11	5
Erste	#4	12	2	9	1	8
Poštanska štedionica	#7	19	22	15	15	17
Vojvođanska banka	bez vidljivosti	28	17	bez vidljivosti	19	29

Izvor: Searchmetrics Suite, avgust 2018. (<https://www.searchmetrics.com/suite/>)

When it comes to the applied keywords in the HTML code, we could conclude that title tags, as the clickable headline for a given result, are optimized for most of the Serbian banks (Table 7). Unlike that, description tags and webpage headings are a neglected element of the keyword strategy. Finally, due to the lack of the image descriptions, alt-tags are also a missed opportunity for strengthening the keywords strategy, which makes the sites also non-compliant with the Web Content Accessibility Guidelines (Andrés *et al.*, 2009; Moreno and Martinez, 2013). The mitigating factor is that finance service users are rarely looking for images, thus the landing pages concentrate rather on text content (Searchmetrics 2017: 18).

Comparison websites noticed a gap in the market and filled the niche by combining independent editorial content across the spectrum of financial products with comparison facilities (Gill, 2007). The following trend has put pressure back on the banks in the form of increased competition on SERPs (Econsultancy, 2017: 10). The rise of comparison sites and the availability of their consumer-friendly financial content on search engines is not an exception at the Serbian market. Namely, when it comes to the market share according to the targeted keywords (Figure 1), a very strong competition comes from comparison and advice websites (uporediustedi.rs, kamatica.com), which are taking one fifth of the organic visibility from the

Table 7: Keywords in the HTML code of banking websites

Bank	Keywords in Title	Keywords in Description	Alt-tags / Number of Images	Keywords in (H1)	Keywords in (H2)
Banca Intesa	5/5	4/5	980/1579	5/5	4/5
Unicredit	5/5	4/5	52/76	2/5	2/5
Komercijalna banka	5/5	3/5	71/1352	5/5	3/5
Societe Generale	5/5	2/5	134/186	4/5	2/5
Raiffeisen	4/5	1/5	348/411	3/5	2/5
AIK	5/5	2/5	175/316	1/5	4/5
Eurobank	5/5	4/5	369/965	5/5	0/5
Erste	4/5	4/5	123/139	2/5	0/5
Poštanska štedionica	5/5	4/5	49/248	0/5	2/5
Vojvođanska banka	4/5	5/5	259/609	4/5	2/5

Source: Screaming Frog, August 2018. (<https://www.screamingfrog.co.uk/seo-spider/>)

The changed consumer-to-business relationship in the banking sector has also led to some changes in the type and amount of content being provided directly from banks.

banks on SERP. Graph 1 also indicates that the banks in Serbia pay less attention to the quality and content relevancy through investing in content marketing for target users.

Kada je reč o primenjenim ključnim rečima u HTML kodu, možemo zaključiti da su naslovne oznake, kao naslovi na koje se može kliknuti za zadati upit, optimizovane kod većine srpskih banaka (Tabela 7). Za razliku od toga, opisne oznake i naslovi veb stranica predstavljaju zanemarene elemente strategije ključnih reči. Na kraju, zbog nedostatka opisa slika, alternativne oznake (alt-tags) su takođe propuštena prilika za jačanje strategije ključnih reči, što ujedno čini i odnosne veb sajtove neusklađenim prema Smernicama za pristupačnost veb-sadržaja (Andrés et al., 2009; Moreno i Martinez, 2013). Olakšavajuća okolnost je da korisnici finansijskih usluga retko kada traže slike, pa se određiše stranice prevashodno i koncentrišu na sadržaj (Searchmetrics 2017: 18).

između pruženih informacija i realnih potreba, i popunili ga kombinovanjem nezavisnog uredničkog sadržaja o spektru finansijskih proizvoda sa poređenjem finansijskih cena i usluga (Gill, 2007). Ovaj trend je povratno izvršio pritisak na banke, kroz povećanu konkurenciju na prvoj stranici sa rezultatima internet pretrage (Econsultancy, 2017: 10). Porast veb sajtova za poređenje i dostupnost njihovih sadržaja o finansijskim uslugama na pretraživačima ne predstavlja novinu ni na srpskom tržištu. Naime, kada je reč o tržišnom udelu ciljanih ključnih reči (Grafikon 1), vrlo jaka konkurencija dolazi upravo od veb sajtova za poređenje i pružanje saveta (uporediustedi.rs, kamatica.com), koji uzimaju bankama jednu petinu organske vidljivosti na prvoj stranici

Tabela 7: Ključne reči u HTML kodu kod bankarskih veb sajtova

Banka	Ključne reči u naslovnim oznakama	Ključne reči u opisnim oznakama	Alt-tag / Broj slika	Ključne reči u naslovima prvog reda na veb stranicama (H1)	Ključne reči u naslovima drugog reda na veb stranicama (H2)
Banca Intesa	5/5	4/5	980/1579	5/5	4/5
Unicredit	5/5	4/5	52/76	2/5	2/5
Komercijalna banka	5/5	3/5	71/1352	5/5	3/5
Societe Generale	5/5	2/5	134/186	4/5	2/5
Raiffeisen	4/5	1/5	348/411	3/5	2/5
AIK	5/5	2/5	175/316	1/5	4/5
Eurobank	5/5	4/5	369/965	5/5	0/5
Erste	4/5	4/5	123/139	2/5	0/5
Poštanska štedionica	5/5	4/5	49/248	0/5	2/5
Vojvođanska banka	4/5	5/5	259/609	4/5	2/5

Izvor: Screaming Frog, avgust 2018. (<https://www.screamingfrog.co.uk/seo-spider/>)

Promenjene potrebe potrošača prema finansijskom sektoru, takođe su dovele do nekih promena u vrsti i količini sadržaja koji banke postavljaju na svojim veb sajtovima. Sajtovi za poređenje uočili su jaz na tržištu

sa rezultatima internet pretrage. Grafikon 1 takođe ukazuje da banke u Srbiji pridaju manje pažnje kvalitetnom i relevantnom sadržaju, kroz ulaganje u marketing putem sadržaja za ciljne korisnike.

Figure 1 Market share by targeted keywords, top 10 SERP results on Google

Land, 2018: 17). Consequently, the correlation between social signals and ranking position is high (Searchmetrics, 2016), as those webpages which are receiving high engagement metrics are more frequently visited and indexed by bots. However, when it comes to the finance ranking factors, finance domains have fewer social signals compared with the overall average (Searchmetrics, 2017: 20). Having in mind the lower traffic to the Serbian bank websites coming from social networks (Table 2), we have conducted

Social Media Signals

In the recent years, social platforms, or the so-called social signals contributing to website traffic have had an increasing importance with the number of shares, likes and tweets a page receives (Pérez-Montoro and Codina, 2017). If links were a way for people to “vote” in favor of sites, social media sharing represents a way for that voting behavior to continue (Search Engine

an analysis of how banks perform on the four most used social platforms in Serbia - Facebook, YouTube, Instagram and Twitter (Statcounter, 2018). LinkedIn, as a popular social platform in the finance industry which on average generates more social signals than the overall benchmark average (ibid: 20) was not a subject of our analysis, due to the lack of an adequate tool that could be deployed.

Table 8 Facebook signals and page performances

Bank	Facebook Page Visibility on SERPs	Followers	Average Weekly Grow	Engagement	Page Performance Index
Banca Intesa	#3	214k	-0.016	0.017%	1%
Unicredit	#4	60k	-0.018%	0.076%	2%
Komercijalna banka	#1	174k	-0.048%	0.060%	2%
Societe Generale	#7	34k	0.85%	0.016%	5%
Raiffeisen	#10	59k	0.42%	0.013%	4%
AIK	#9	17k	0.038%	0.099%	3%
Eurobank	#6	74k	0.061%	0.014%	1%
Erste	#5	73k	0.0024%	0.013%	1%
Poštanska štedionica	#2	30k	0.14%	0.010%	2%
Vojvođanska banka	#8	71k	0.43%	0.430%	2%

Source: Searchmetrics Suite (<https://www.searchmetrics.com/suite/>); Fanpage Karma, August 2018. (<https://www.fanpagekarma.com/>)

Grafikon 1 Tržišni udeo u ključnim rečima, 10 vodećih rezultata na prvoj stranici Google-a

Signali sa društvenih mreža

Poslednjih godina društvene mreže ili tzv. signali ka vebajtu koji potiču sa društvenih mreža, preko broja deljenja (share), lajkova, komentara i tvitova koje generiše veb stranica, imaju sve veći značaj u ostvarenom veb saobraćaju (Pérez-Montoro i Codina, 2017). Ako su linkovi način kako korisnici „glasaju“ za veb sajtove, deljenje sadržaja na društvene mreže predstavlja način za nastavak njihovog

glasačkog ponašanja (Search Engine Land, 2018: 17). Shodno tome, korelacija između signala sa društvenih mreža i ranga veb stranice je visoka (Searchmetrics, 2016), budući da roboti internet pretraživača češće posećuju i indeksiraju veb stranice koje ostvaruju visoke stope angažovanja. Međutim, kada je reč o faktorima rangiranja finansijskih veb sajtova, finansijski domeni imaju manje signala sa društvenih mreža u poređenju sa prosekom (Searchmetrics, 2017: 20). S obzirom na činjenicu da kod srpskih banaka manji obim veb saobraćaja dolazi sa društvenih mreža (Tabela 2), sproveli smo analizu prisustva banaka na četiri najčešće korišćene društvene mreže u Srbiji - Facebook, YouTube, Instagram i Twitter (Statcounter, 2018)). LinkedIn, takođe popularna društvena mreža u finansijskom sektoru, koja u proseku generiše više signala sa društvenih mreža od proseka (ibid: 20) nije bila predmet naše analize, zbog nedostatka adekvatnog alata koji bi se mogao primeniti.

Tabela 8 Facebook signali i učinak Facebook naloga

Banka	Vidljivost Facebook naloga na prvoj stranici sa rezultatima pretrage	Broj pratilaca	Prosečan nedeljni rast	Stopa angažovanja pratilaca	Indeks učinka Facebook naloga
Banca Intesa	#3	214k	-0,016	0,017%	1%
Unicredit	#4	60k	-0,018%	0,076%	2%
Komercijalna banka	#1	174k	-0,048%	0,060%	2%
Societe Generale	#7	34k	0,85%	0,016%	5%
Raiffeisen	#10	59k	0,42%	0,013%	4%
AIK	#9	17k	0,038%	0,099%	3%
Eurobank	#6	74k	0,061%	0,014%	1%
Erste	#5	73k	0,0024%	0,013%	1%
Poštanska štedionica	#2	30k	0,14%	0,010%	2%
Vojvođanska banka	#8	71k	0,43%	0,430%	2%

Izvor: Searchmetrics Suite (<https://www.searchmetrics.com/suite/>); Fanpage Karma, avgust 2018. (<https://www.fanpagekarma.com/>)

From the Table 8. scores we could conclude that the number of Facebook fans mainly corresponds to the size of the bank, but there is an evident stagnation in the page growth rates, with Societe Generale making the only exception. Having in mind that one of the best uses of social media is to increase engagement, the biggest challenge of the Serbian banking sector Facebook pages comes from the low engagement rates of its followers. The overall low engagement points out to the practice of buying inactive followers and mainstream content dissemination. The highest engagement rate is that of Vojvodjanska banka, which, although stands at only 0.43%, serves as a benchmark. Next, the indicator of the Facebook page visibility shows how many Facebook social signals are presented in the top five SERP results on Google, where Komercijalna banka scores the best. Finally, the Page Performance Index

is defined as a combination of engagement and growth rates and provides an estimate value for the Facebook pages success. From the presented results, the best Facebook page performance is that of Societe Generale, mainly due to its positive page growth rate.

YouTube is a social network which generates the highest volume of social traffic to the Serbian banks' websites. From Table 9. it is evident that the banks are actively exploiting this channel having in mind the strong video trends in the finance industry sector (Econsultancy, 2017). Expectedly, the best performer on YouTube is the largest bank in the country - Banca Intesa, in terms of total/average views per video, subscribers and total/average likes on all videos. Again, the low number of subscribers and low total/average likes per video in most of the banks points to the issue of low followers' engagement and low video content relevancy.

Table 9: YouTube signals and page performances

Bank	Videos	Views	Average Views Per Upload	Subscribers	Total Likes on All Videos	Average Likes Per Video
Banca Intesa	130	2.35 mil	18k	2688	7600	58
Unicredit	66	921k	14k	583	15	0
Komercijalna banka	173	750k	4.3k	551	450	3
Societe Generale	111	304k	2.7k	511	0	0
Raiffeisen	103	584k	5.6k	342	85	1
AIK	36	29k	804	89	125	3
Eurobank	260	2.2 mil	8.3k	527	105	0
Erste	180	955k	5.3k	640	400	2
Poštanska štedionica	22	26k	1.2k	212	5	0
Vojvođanska banka	237	798k	3.4k	392	65	0

Source: Social Blade, August 2018. (<https://socialblade.com/youtube/user/audit>)

Iz Tabele 8 možemo zaključiti da broj Facebook pratilaca većinom odgovara veličini banke, ali je evidentna stagnacija u stopama rasta naloga, gde je Societe Generale jedini izuzetak. Imajući u vidu da je jedan od najboljih načina korišćenja društvenih mreža kroz povećanje angažovanja pratilaca, najveći izazov kod Facebook naloga srpskih banaka proizlazi iz niske stope angažovanja pratilaca. Sveukupno nisko angažovanje ukazuje na praksu kupovine neaktivnih pratilaca i diseminaciju sveopšteg sadržaja. Najviša stopa angažovanja je kod Vojvođanske banke koja, iako iznosi samo 0,43%, može da posluži kao referentna vrednost. Potom, pokazatelj vidljivosti Facebook naloga na Google-u pokazuje koliko je Facebook signala vidljivo u prvih pet stranica rezultata pretrage, gde Komercijalna banka ima najbolji rezultat. Konačno, indeks učinka Facebook naloga definiše se kao kombinacija

stope angažovanja i rasta broja pratilaca, i daje procenu uspešnosti Facebook naloga. Iz prikazanih rezultata, najbolji učinak Facebook naloga ima Societe Generale, prevashodno zbog pozitivne stope rasta broja pratilaca.

YouTube je mreža koja generiše najveći obim veb saobraćaja iz društvenih mreža, na vebstranama srpskih banaka. Imajući u vidu snažne video trendove u finansijskom sektoru, iz Tabele 9 se vidi da banke aktivno koriste ovaj kanal (Econsultancy, 2017). Očekivano, najuspešnija na YouTube-u je najveća banka u zemlji - Banca Intesa, u pogledu ukupnih/prosečnih pregleda po videu, broja pratilaca i ukupnog/prosečnog broja lajkova na svim video zapisima. Ponovo, mali broj pratilaca i nizak broj ukupnih/prosečnih lajkova po video zapisu u većini banaka ukazuju na problem niskog angažovanja pratilaca i slabu relevantnost video sadržaja.

Tabela 9: YouTube signali i učinak YouTube naloga

Banka	Broj video zapisa	Pregledi	Prosečno pregleda po video zapisu	Pratioci	Ukupno lajkova na svim video zapisima	Prosečno lajkova po video zapisu
Banca Intesa	130	2.35 mil	18k	2688	7600	58
Unicredit	66	921k	14k	583	15	0
Komercijalna banka	173	750k	4,3k	551	450	3
Societe Generale	111	304k	2,7k	511	0	0
Raiffeisen	103	584k	5,6k	342	85	1
AIK	36	29k	804	89	125	3
Eurobank	260	2,2 mil	8,3k	527	105	0
Erste	180	955k	5,3k	640	400	2
Poštanska štedionica	22	26k	1,2k	212	5	0
Vojvođanska banka	237	798k	3,4k	392	65	0

Izvor: Social Blade, avgust 2018. (<https://socialblade.com/youtube/user/audit>)

Instagram is the most popular network among teenagers in the urban areas of Serbia (Danas, 2018), and if banks want to attract their future customers, they need to have an active presence on Instagram. Despite the small number of followers when compared to Facebook, the engagement rates on Instagram are much higher (Table 10) as this social network concentrates on experience rather than service offerings. Banca Intesa is the market leader in terms of the number of followers and posts, but Societe Generale is providing the most engaging content to its followers. Due to the higher engagement rates, it would be advisable for banks to concentrate their efforts more on Instagram, thus humanizing their brand with the use of compelling, interactive content which aligns with the values of younger generations.

Twitter stagnates as a social network and the half-life of a tweet is only 24 minutes, which means that 50% of the content posted on Twitter is visible for only 24 minutes (Rey, 2014). The trend in financial services is its transformation into an e-customer service channel (Hyken, 2016). That is exactly what Banca Intesa did in Serbia, thus making its Twitter account the most active in terms of followers and tweets (Table 11). Furthermore, Societe Generale has the most loyal followers base, as one third of them actively retweets the content published by the bank. This finding, together with the ones that the bank receives the highest average growth rate on Facebook (Table 8) and engagement rate on Instagram (Table 10) can explain the benchmark rate of social traffic (Table 2) for Societe Generale. Finally, when it comes to the followers' ratio, as the relationship between the number of followers and followed accounts, Raiffeisen Bank's Twitter account has the best score.

Table 10: Instagram signals and page performances

Bank	Followers	Posts	Engagement
Banca Intesa	3.2k	840	1.4%
Unicredit	1.7k	657	2.5%
Komercijalna banka	2k	544	1.9%
Societe Generale	1.5k	123	3%
Raiffeisen	bez naloga na Instagramu		
AIK	1k	395	2.7%
Eurobank	1.1k	276	1.7%
Erste	1.9k	435	4%
Poštanska štedionica	1.3k	5	5.8%
Vojvođanska banka	/	/	/

Source: Hype Auditor, August 2018. (<https://hypeauditor.com/>)

Table 11: Twitter signals and page performances

Bank	Followers	Tweets	Followers Ratio	Retweets
Banca Intesa	11.2k	8.8k	2.58	1/100
Unicredit	1.3k	1.3k	3.73	19/100
Komercijalna banka	4.6k	4.6k	1.71	0/100
Societe Generale	2.5k	2.2k	2.68	33/100
Raiffeisen	1k	0.4k	6.72	1/100
AIK	bez naloga na Twitter-u			
Eurobank	1.3k	1.8k	3.17	2/100
Erste	9.1k	3.7k	3.05	18/100
Poštanska štedionica	1.1k	0.7k	5.15	13/100
Vojvođanska banka	1.5k	2.1k	1.88	0/100

Source: Foller.me, August 2018. (<https://foller.me/>)

Instagram je najpopularnija mreža kod mladih u urbanim područjima Srbije (Danas, 2018), i ako banke žele da ih privuku kao buduće klijente, moraju biti aktivno prisutne na Instagramu. Uprkos malom broju pratilaca u odnosu na Facebook, stope njihovog angažovanja na Instagramu su mnogo veće (Tabela 10), s obzirom da se ova društvena mreža koncentriše na iskustvo, pre nego na ponudu usluga. Banca Intesa je tržišni lider po broju pratilaca i objava, ali Societe Generale svojim pratiocima pruža najzanimljiviji sadržaj. Zbog viših stopa angažovanja, bilo bi poželjno da banke više usmeravaju svoje napore ka Instagramu, čime bi humanizovale svoj brend upotrebom privlačnog, interaktivnog sadržaja, u skladu sa vrednostima koje zastupaju mlađe generacije.

Tabela 10: Instagram signali i učinak Instagram naloga

Banka	Pratioci	Objave	Angažovanje
Banca Intesa	3,2k	840	1,4%
Unicredit	1,7k	657	2,5%
Komercijalna banka	2k	544	1,9%
Societe Generale	1,5k	123	3%
Raiffeisen	bez naloga na Instagramu		
AIK	1k	395	2,7%
Eurobank	1,1k	276	1,7%
Erste	1,9k	435	4%
Poštanska štedionica	1,3k	5	5,8%
Vojvođanska banka	/	/	/

Izvor: Hype Auditor, avgust 2018. (<https://hypeauditor.com/>)

Twitter stagnira kao društvena mreža, i vreme polu-trajanja jednog tvita je samo 24 minuta, što znači da je 50% sadržaja objavljenog na Twitter-u vidljivo samo u roku od 24 minuta (Rey, 2014). Trend u finansijskim uslugama je njegova transformacija u kanal za pružanje korisničke podrške (Hyken, 2016). To je upravo i uradila Banca Intesa u Srbiji, čime je svoj Twitter nalog učinila najaktivnijim u pogledu broja pratilaca i tvitova (Tabela 11). Zatim, Societe Generale ima najverniju bazu pratilaca, jer jedna trećina njih aktivno deli sadržaj koji banka objavi. Pomenuti nalaz, zajedno sa onim da banka ima najveću prosečnu stopu rasta broja pratilaca na Facebook nalogu (Tabela 8) i najveću stopu angažovanja pratilaca na Instagramu (Tabela 10), objašnjava zašto je Societe Generale referentna banka u pogledu veb saobraćaja sa društvenih mreža (Tabela 2). Na kraju, kada je u pitanju odnos između broja pratilaca i broja praćenih naloga na Twitter-u, Raiffeisen banka ostvaruje najbolji rezultat.

Table 11: Twitter signali i učinak Twitter naloga

Banka	Pratioci	Tvitovi	Odnos broja pratilaca i praćenih naloga	Retvitovi
Banca Intesa	11,2k	8,8k	2,58	1/100
Unicredit	1,3k	1,3k	3,73	19/100
Komercijalna banka	4,6k	4,6k	1,71	0/100
Societe Generale	2,5k	2,2k	2,68	33/100
Raiffeisen	1k	0,4k	6,72	1/100
AIK	bez naloga na Twitter-u			
Eurobank	1,3k	1,8k	3,17	2/100
Erste	9,1k	3,7k	3,05	18/100
Poštanska štedionica	1,1k	0,7k	5,15	13/100
Vojvođanska banka	1,5k	2,1k	1,88	0/100

Izvor: Foller.me, avgust 2018. (<https://foller.me/>)

Conclusions

Having in mind that the internet use is pervasive across all age groups in Serbia, that the web rooming trends in the banking sector are strong and that Google is present at each stage of the financial customer journey, there is no question about whether banks should be visible on search engines, but how they could be more relevant and authoritative than their competitors. Our research has shown that some of the largest banks in Serbia are declaratively using SEO as a marketing strategy, but that they still lack strategic orientation, given that lost opportunities and untapped potentials that could further enhance their organic visibility on Google have been identified. Banca Intesa, as the largest bank in the country, could serve as a benchmark in the areas of website performance indicators, keyword visibility on SERPs, online recommendations and social signals. However, it is a question whether its strong brand name and robust retail clientele contributes to the good scores in organic search visibility? Nevertheless, despite being the SEO leader in the sector, for Banca Intesa, some important technical aspects remain untapped, such as site speed and migration to secure website protocol. Based on our first research question (RQ1), and having in mind the finance sector ranking factors that were the subject of our analysis, we could conclude that none of the analyzed banks have a comprehensive SEO strategy that insures organic search visibility.

When it comes to the website performances, banking sites which are traditionally rich of content, and whose strategy is based on cross and up-selling of its services should be aiming to increase its time on site and the number of page views following the identified market benchmarks. This can be achieved with a better interlinking strategy, frequent content updating and the improved content relevancy. Bounce rates should not be neglected either, having in mind their importance among the finance sector ranking factors, and all the websites with over 30% of bounced visitors should audit their content. Moreover, the improvements in the mobile site speed coming from a decreased page weight, lower page requests and enhanced page structure would also positively affect the bounce

rates. Almost all the banks that were the subject of our analysis have recorded a poor mobile website loading time. Moreover, based on the website traffic analysis, we could conclude that referrals, social and email marketing are the neglected traffic sources which should be enhanced, thus positively contributing to the increase in the number of website visits. Some banks also need to re-evaluate their online advertising strategy, due to the low web traffic coming from paid search and display. Thus, the integration of organic and paid search efforts into the search engine marketing strategy would synergistically increase the visibility of the banks' brand on SERPs, together with the increased website traffic.

Furthermore, the country level domains, applied secured website protocols and mobile friendliness are for most of the banks in accordance with the good SEO practice, but a couple of identified exceptions which do not comply with it should implement it as soon as possible.

For most of the analyzed bank websites, the backlinking strategy which contributes to their domain and page authority is identified as an untapped potential. Having in mind the increase in mobile search queries and the prominence of application rankings in organic search which are contributing to the decline of backlinks importance in terms of quantity (Searchmetric, 2016), it would be advisable for the banks to proactively attract high quality links such as those coming from governmental and educational websites. Interlinks should not be neglected either, as their superior structure would increase the number of page views.

Referring to the site relevance based on the applied keywords strategy, we could conclude that description tags, page headings and image tags would positively contribute to it, as they are representing an unused opportunity for most of the banks. The enhanced keywords strategy, together with higher content relevance applied on category and landing pages designed for targeted audience, would also contribute to a steady link growth and an improvement of the engagement metrics, such as social shares. A frequent content audit based on the web analytics performance, personalization of the online experience with targeted webpage

Zaključak

Imajući u vidu da je upotreba interneta rasprostranjena u svim starosnim grupama u Srbiji, da su internet trendovi u bankarskom sektoru jaki i da je Google prisutan u svakoj fazi potrošačkog ciklusa kod korisnika finansijskih usluga, nije pitanje da li banke treba da budu vidljive na internet pretraživačima, već kako da budu relevantnije i autoritativnije od svojih konkurenata. Naše istraživanje je pokazalo da neke od najvećih banaka u Srbiji deklarativno koriste SEO kao marketinšku strategiju, ali da im nedostaje strateška orijentacija, budući da su identifikovane propuštene prilike i neiskorišćeni potencijali koji bi mogli dodatno da povećaju organsku vidljivost njihovih veb-sajtova na Google-u. Banca Intesa, kao najveća banka u zemlji, mogla bi poslužiti kao reper u oblastima učinka veb-sajta, vidljivosti ključnih reči na stranici rezultata internet pretrage, strategiji linkovanja i u signalima sa društvenih mreža. Međutim, pitanje je da su njen jak brend i brojni klijenti doprineli dobrim rezultatima u organskoj vidljivosti na pretraživaču? Ipak, uprkos tome što je Banca Intesa SEO lider u sektoru, neke važne tehničke aspekte nije iskoristila, kao što su brzina učitavanja veb-sajta i migracija na siguran protokol. Na temelju našeg prvog istraživačkog pitanja (P1), a imajući u vidu faktore rangiranja finansijskih veb-sajtova na pretraživaču koji su bili predmet naše analize, možemo zaključiti da nijedna od analiziranih banaka nema sveobuhvatnu SEO strategiju koja osigurava organsku vidljivost veb-sajta na internet pretraživaču.

Kada je reč o učinku, bankarski veb-sajtovi, tradicionalno bogati sadržajem, čija se strategija temelji na unakrsnoj i prodaji na više usluga, trebalo bi da teže povećanju vremena provedenog na veb-sajtu i broju posećenih stranica, naspram identifikovanih repera. To se može postići boljom strategijom linkovanja, češćim unosom svežeg sadržaja i poboljšanom relevantnošću sadržaja. Ne treba zanemariti ni stopu momentalnog napuštanja sajta, imajući u vidu njen značaj u faktorima rangiranja finansijskih veb-sajtova, a veb-sajtovi sa više od 30% posetilaca koji ga napuštaju pre posete drugoj stranici, trebalo bi da izvrše reviziju svog sadržaja. Štaviše, poboljšanja mobilne

brzine učitavanja koja potiču iz smanjene težine veb stranice, manjeg broja zahteva na stranicama i poboljšane strukture veb stranica takođe bi pozitivno uticala na smanjenje stope brzog napuštanja veb-sajta. Gotovo sve banke koje su bile predmet naše analize zabeležile su loše vreme učitavanja mobilnih veb stranica. Na temelju analize veb saobraćaja, možemo zaključiti da su sajtovi-preporuke, društvene mreže i imejl marketing zanemareni izvori veb saobraćaja koji bi trebalo da se unaprede, što bi pozitivno uticalo na povećanje broja poseta veb-sajtu. Pojedine banke takođe treba da preispitaju svoju strategiju internet oglašavanja, zbog niskog saobraćaja koji dolazi iz plaćenog pretraživanja i sa veb banera. Integracija organskih i plaćenih rezultata pretraživanja, u strategiju marketinga na internet pretraživačima, sinergetski bi povećala vidljivost bankarskih brendova na prvoj stranici sa rezultatima internet pretrage, pored unapređenog veb saobraćaja.

Potom, nacionalni domeni, primena sigurnih protokola na veb-sajtu i unapređena funkcionalnost na mobilnim uređajima su za većinu banaka u skladu sa dobrom SEO praksom, uz nekoliko banaka koje čine izuzetak, i koje bi trebalo to da primene što je pre moguće.

Za većinu analiziranih bankarskih sajtova, strategija linkovanja koja doprinosi autoritetu domena i stranica identifikovana je kao neiskorišćeni potencijal. Imajući u vidu porast mobilnog pretraživanja i bolje rangiranje mobilnih aplikacija u organskim rezultatima pretrage, koji doprinose smanjenju važnosti u broju linkova (Searchmetric, 2016), bilo bi preporučljivo da banke proaktivno privlače visoko kvalitetne linkove koji dolaze sa državnih ili obrazovnih veb-sajtova. Strategiju unutrašnjeg linkovanja takođe ne bi trebalo zanemariti, jer bi superiorna struktura unutrašnjih linkova povećala broj konzumiranih veb stranica.

S obzirom na relevantnost veb-sajta koja se zasniva na strategiji primenjenih ključnih reči, možemo zaključiti da bi opisne oznake, naslovi na veb stranicama i opisi vizuelnog sadržaja ostvarili pozitivan uticaj, budući da predstavljaju neiskorišćenu priliku kod većine banaka. Unapređena strategija ključnih reči, uz veću relevantnost sadržaja na prodajnim veb stranicama usmerenog ka ciljnoj publici, takođe

content and investment in new content formats such as product/service comparisons, financial advice, video tutorials and infographics would decrease the currently strong market share in keywords coming from comparison and advice websites.

Finally, the analyzed social signals of the Serbian banks on Google point to the need to focus on the better engagement rates of fans and followers, as the growth rates reached saturation for some of the analyzed social networks, such as Facebook and Twitter. This can be achieved through higher-quality content and focus on social platforms with a higher engagement rate such as Instagram and YouTube. Also, we tend to agree with the findings of Dootson *et al.* (2016: 23) that banks need to create and articulate the value consumers will receive from using social media to achieve improved customer experiences, engagement, and enhance relationships. This is exactly what Societe Generale is doing, by showcasing that high volumes of social traffic are coming from positive growth rates on Facebook, high engagement rate on Instagram and the loyal base of followers on Twitter.

To our best knowledge, this type of analysis involving the financial sector websites has not been conducted before. The findings may help the marketers in banks to address their websites from the perspective of organic search engine visibility and to make better informed decisions regarding their online strategies and resource allocation. The limitations of the research are that the generated data come from the deployed SEO software and tools, whereby the exact data could only be provided with the insights into Google Analytics (visitors' behavior) and Google Search Console (website impact and state of technical factors), for which it is necessary to obtain a legal access permit. Due to the lack of insight into their own banks' platforms, some of the important Searchmetrics Finance Ranking Factors could not be a subject of scrutiny, such as the File Size, Presence of Unordered Lists, Word Count and the performance on LinkedIn. Furthermore, some variances may appear due to the different classifications used by the National Bank of Serbia and individual banks, as there are differences between the central bank's record on banks and the 2017 end of year results published on the banks' websites.

bi doprinela stalnom rastu linkova i poboljšanju metrika angažovanja, poput deljenja sadržaja na društvenim mrežama. Česta revizija sadržaja koja se zasniva na učinku iz veb analitike, personalizacija korisničkog utiska na internetu sa ciljanim sadržajem na veb stranicama i ulaganje u nove formate sadržaja, poput upoređivanja karakteristika proizvoda/usluga, finansijskih saveta, video tutorijala i infografika, smanjila bi trenutno visok tržišni udeo u ključnim rečima koji dolazi sa nebankarskih veb-sajtova za poređenje i savetovanje.

Na kraju, analizirani signali koji potiču sa društvenih mreža srpskih banaka na Google-u, ukazuju na potrebu usmeravanja ka boljim stopama angažovanja pratilaca, budući da su stope rasta dosegle svoju saturaciju na nekim od analiziranih društvenih mreža, kao što su Facebook i Twitter. To se može postići kvalitetnijim sadržajem i usmeravanjem na društvene mreže sa većom stopom angažovanja, kao što su Instagram i YouTube. Takođe, složićemo se sa nalazima Dootson i saradnici (2016: 23) da banke treba da stvore i artikulišu vrednost koju će potrošači dobiti od korišćenja društvenih mreža, kako bi postigle bolje korisničko iskustvo, angažovanje i unapredile uzajamne odnose. To je upravo ono što radi banka Societe Generale, pokazujući da veliki obim veb saobraćaja sa mreža dolazi od

pozitivnih stopa rasta na Facebook-u, visoke stope angažovanja pratilaca na Instagramu i lojalne baze pratilaca na Twitter-u.

Prema našim saznanjima, ovakva vrsta analize koja uključuje finansijske veb-sajtove još nije rađena. Podaci mogu pomoći marketinškim stručnjacima u bankama da se bave svojim veb-sajtovima iz perspektive njihove organske vidljivosti na pretraživačima, da donose bolje informisane odluke o svojim strategijama na internetu i alokaciji resursa. Ograničenja ovog istraživanja su da dobijeni podaci dolaze sa primenjenih veb alata i SEO softvera, pri čemu se tačni podaci mogu generisati samo uvidom u Google analitiku (ponašanje posetilaca) i Google konzolu (učinak sajta i stanje tehničkih faktora), za šta je potrebno pribaviti dozvole za pristup. Zbog nedostatka potpunog uvida u veb-sajtove banaka, neki od važnih Searchmetrics faktora za rangiranje finansijskih veb-sajtova nisu mogli biti predmet ispitivanja, kao što su veličina fajlova na sajtu, broj reči po veb stranici i učinak na LinkedIn mreži. Dodatno, izvesne razlike se mogu pojaviti zbog različitih klasifikacija koje primenjuju Narodna banka Srbije i pojedinačne banke, budući da postoje razlike između evidencije centralne banke o bankama i finansijskim rezultatima za 2017. godinu, koji su objavljeni na veb-sajtovima banaka.

Literatura / References

1. Andrés, J. D., Lorca, P., Martínez, A. B. (2009). Economic and Financial Factors for the Adoption and Visibility Effects of Web Accessibility: The Case of European Banks, *Journal of the American Society for Information Science and Technology*, Vol. 60 (9), 1769-1780. doi:10.1002/asi.21103.
2. Askey, D., Arlitsch, K. (2014). Heeding the Signals: Applying Web Best Practices When Google Recommends, *Journal of Library Administration*, Vol. 55 (1), 49-59. doi: 10.1080/01930826.2014.978685.
3. Consumer Barometer with Google, The Online and Multiscreen World (RS), <https://www.consumerbarometer.com/en/insights/?countryCode=RS> (pristupljeno 19. septembra 2018)
4. Costello, R. (2018). Deep Crawl's Ultimate Guide To Google's Mobile-First Index. <https://www.deepcrawl.com/blog/white-papers/deepcrawl-guide-google-mobile-first-index/> (pristupljeno 17. marta 2018)
5. Danas (2018). Deca u Srbiji najviše koriste Instagram a ne Fejsbuk, BBC News od 11. aprila 2018. <https://www.danas.rs/bbc-news-serbian/deca-u-srbiji-najvise-koriste-instagram-a-ne-fejsbuk/> (pristupljeno 21. septembra 2018)
6. Dickinson, Z., Smit, M. (2015). Being Where the People Are: The Challenges and Benefits of Search Engine Visibility for Public Libraries, *Library Hi Tech News*, Vol. 32 (10), 11-15. doi: 10.1108/LHTN-08-2015-0055.
7. Dootson, P., Beatson, A., Drennan, J. (2016). Financial Institutions Using Social Media - Do Consumers Perceive Value?, *International Journal of Bank Marketing*, Vol. 34 (1), 9-36. doi: 10.1108/IJBM-06-2014-0079.
8. Econsultancy (2017). Digital Intelligence Briefing 2017: Digital Trends in Financial Services and Insurance, published March 2017 by Econsultancy.com Ltd. <https://econsultancy.com/reports/2017-digital-trends-in-financial-services-and-insurance/> (pristupljeno 27. avgusta 2018)
9. Edelman (2015). 2015 Edelman Trust Barometer. <https://www.edelman.com/2015-edelman-trust-barometer/> (pristupljeno 7. avgusta 2018).
10. Egri, G., Bayrak, C. (2014). The Role of Search Engine Optimization on Keeping the User on the Site, *Procedia Computer Science*, Special issue: Complex Adaptive Systems Philadelphia, PA, 3-5 November 2014, Vol. 36, 335-342. doi: 10.1016/j.procs.2014.09.102.
11. Enge, E., Spencer, S., Stricchiola, J. (2015). *The Art of SEO: Mastering Search Engine Optimization* (3rd edition). California, United States: O'Reilly Media.
12. Faktor Plus (2015). NCSI Research - Serbian Banking Sector. <https://www.faktorplus.rs/index.php/aktuelno-2/82-windows-8/84-full-responsive> (pristupljeno 17. januara 2019)
13. Gill, C. (2008). Restoring Consumer Confidence in Financial Services, *International Journal of Bank Marketing*, Vol. 26 (2), 148-152. doi: 10.1108/02652320810852790.
14. Google Trends, <https://trends.google.com/trends/?geo=RS> (pristupljeno 30. jula 2018)
15. Google Search Console, Secure Your Site with HTTPS, Protect Your Site and Your Users, <https://support.google.com/webmasters/answer/6073543?hl=en> (pristupljeno 1. avgusta 2018)
16. Haider, J. (2016). The Structuring of Information Through Search: Sorting Waste with Google, *Aslib Journal of Information Management*, Vol. 68 (4), 390-406. doi: 10.1108/AJIM-12-2015-0189.
17. Hariri, N. (2011). Relevance rRanking on Google: Are Top Ranked Results Really Considered More Relevant by the Users?, *Online Information Review*, Vol. 35 (4), 598-610. doi: 10.1108/14684521111161954.
18. Hubspot (2016). Average Traffic Sources for Websites: Benchmarks from 15K HubSpot Customers. <https://research.hubspot.com/average-traffic-sources-for-websites-benchmarks-from-15k-hubspot-customers> (pristupljeno 5. septembra 2018)
19. Hyken, S. (2016). How to Use Twitter for Customer Service, Forbes blog od 30. aprila 2016. <https://www.forbes.com/sites/shephyken/2016/04/30/how-to-use-twitter-for-customer-service/#5618a42949f2> (pristupljeno 20. septembra 2018)

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20. Kamatica (2015). Promena banke? Evo čiji klijenti bi najradije otišli. <https://www.kamatica.com/istrazivanja/promena-banke-evo-ciji-klijenti-bi-najradije-otisli/13337> (pristupljeno 18. januara 2019)
21. Kaushik, A. (2009). *Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity*. New Jersey, United States: Wiley.
22. Kritzinger, W.T., Weideman, M. (2015). Comparative Case Study on Website Traffic Generated by Search Engine Optimization and a Pay-Per-Click Campaign, Versus Marketing Expenditure, *South African Journal of Information Management*, Vol. 17 (1), Art. #651, 1-12. <http://dx.doi.org/10.4102/sajim.v17i1.651>.
23. Krzysztof, J. (2016). A Global Approach to the Spatial Diversity and Dynamics of Internet Domains, *Geographical Review*, Vol. 106 (4), 567-587. doi: 10.1111/j.1931-0846.2016.12197.x.
24. Luh, C.J., Yang, S.A., Huang T.L.D. (2016). Estimating Google's Search Engine Ranking Function From a Search Engine Optimization Perspective, *Online Information Review*, Vol. 40 (2), 239-255. doi: 10.1108/OIR-04-2015-0112.
25. Mavridis, T., Symeonidis A.L. (2015). Identifying Valid Search Engine Ranking Factors in a Web 2.0 and Web 3.0 Context for Building Efficient SEO Mechanisms, *Engineering Applications of Artificial Intelligence*, Vol. 41 (75-91). doi: 10.1016/j.engappai.2015.02.002.
26. Moreno, L., Martinez, P. (2013). Overlapping Factors in Search Engine Optimization and Web Accessibility, *Online Information Review*, Vol. 37 (4), 564-580. doi: 10.1108/OIR-04-2012-0063.
27. Narodna banka Srbije (2018). Finansijski izveštaji, ažurirano 19. jula 2018. https://www.nbs.rs/internet/english/50/50_5.html (pristupljeno 31. jula 2018)
28. Net Market Share, Market Share Statistics for Internet Technologies, Search Engine Market Share, <https://www.netmarketshare.com/search-engine-market-share/> (pristupljeno 29. jula 2018)
29. Pérez-Montoro, M., Codina, L. (2017). The Essentials of Search Engine Optimization, in: *Navigation Design and SEO for Content-Intensive Websites, A Guide for an Efficient Digital Communication*. Chapter 5, 109-124. New York: Elsevier.
30. Phan, D. (2016). Mobile-First Indexing, Google Webmaster Central Blog as of 4 November 2016, <https://webmasters.googleblog.com/2016/11/mobile-first-indexing.html> (pristupljeno 23. avgusta 2018)
31. Pilcher, J. (2016). Banks and Credit Unions Struggling With Website and Mobile Traffic, The Financial Brand. <https://thefinancialbrand.com/59239/mobile-banking-website-traffic/> (pristupljeno 5. septembra 2018)
32. Registar nacionalnih internet domena Srbije, Nacionalni domeni. <https://www.rmids.rs/en/domains/national-domains> (pristupljeno 29. jula 2018)
33. Rey, B. (2014). Your Tweet Half-Life is 1 Billion Times Shorter Than Carbon-14's, Wiselytics blog as of 5 March 2014, <http://www.wiselytics.com/blog/tweet-is-billion-time-shorter-than-carbon14/> (pristupljeno 1. septembra 2018)
34. Robbins, M. (2018). Effective July 2018, Google's Chrome Browser Will Mark Non-HTTPS Sites as Not Secure, Search Engine Land blog as of 8 February 2018, <https://searchengineland.com/effective-july-2018-googles-chrome-browser-will-mark-non-https-sites-as-not-secure-291623> (pristupljeno 6. septembra 2018)
35. Savezni zavod za statistiku Republike Srbije (2018). Procene stanovništva, 2017 (29.06.2018). <http://www.stat.gov.rs/en-us/vesti/20180629-procene-stanovnistva-2017/?s=1801> (pristupljeno 5. septembra 2018)
36. Schubert, D. (2016). Influence of Mobile-Friendly Design to Search Results on Google Search, in *19th International Conference Enterprise and Competitive Environment 2016, ECE 2016, Brno, Czech Republic, Procedia - Social and Behavioral Sciences*, Vol. 220, 424-433. doi: 10.1016/j.sbspro.2016.05.517.

37. Schwartz, B. (2018). The Google Speed Update: Page Speed Will Become a Ranking Factor in Mobile Search, Search Engine Land blog as of 17 January 2018, <https://searchengineland.com/google-speed-update-page-speed-will-become-ranking-factor-mobile-search-289904> (pristupljeno 1. septembra 2018)
38. Scott, D. (2015). White Hat Search Engine Optimization (SEO): Structured Web Data for Libraries, *Partnership: the Canadian Journal of Library and Information Practice and Research*, Vol. 10 (1), 1-22. doi: <http://dx.doi.org/10.21083/partnership.v10i1.3328>.
39. Scott W.H.Y. (2016). Speed Matters: Performance Enhancements for Library Websites, *Weave: Journal Of Library User Experience*, Vol. 1 (4). Directory of Open Access Journals, EBSCOhost. <https://quod.lib.umich.edu/w/weave/12535642.0001.401?view=text;rgn=main> (pristupljeno 6. septembra, 2018). doi:10.3998/weave.12535642.0001.401.
40. Search Engine Land (2018). The Search Engine Land Guide to SEO. <https://searchengineland.com/guide/seo> (pristupljeno 10. jula 2018)
41. Searchmetrics (2016). Rebooting Ranking Factors: Google.com. <https://www.searchmetrics.com/knowledge-base/ranking-factors/> (pristupljeno 6. jula 2018)
42. Searchmetrics (2017). Finance Ranking Factors: Data Insights for Performing on Google, Searchmetrics Industry Ranking Factors Study. <https://www.searchmetrics.com/knowledge-base/ranking-factors-finance/> (pristupljeno 5. jula 2018)
43. Singhal, A., Cutts, M. (2010). Using Site Speed in Web Search Ranking, Google Webmaster Central Blog as of 9 April 2010, <https://webmasters.googleblog.com/2010/04/using-site-speed-in-web-search-ranking.html> (pristupljeno 5. septembra 2018).
44. Sitespect (2015). Website and Mobile Optimization for Financial Services Companies: Enhancing the Online Customer Experience. <https://www.sitespect.com/resources/website-and-mobile-optimization-financial-services-companies> (pristupljeno 15. avgusta 2018)
45. Skiera, B., Eckert, J., Hinz, O. (2010). An Analysis of the Importance of the Long Tail in Search Engine Marketing, *Electronic Commerce Research and Applications*, Vol. 9, 488-494. doi:10.1016/j.elerap.2010.05.001.
46. Statcounter, GlobalStats, Social Media Stats in Serbia - August 2018, <http://gs.statcounter.com/social-media-stats/all/serbia> (pristupljeno 5. avgusta 2018)
47. Su, A.J., Hu, Y.C., Kuzmanovic, A., Koh, C.K. (2014). How To Improve Your Search Engine Ranking: Myths and Reality, *ACM Transactions on the Web (TWEB)*, Vol. 8 (2) Art. 8, 1-25. doi: <http://dx.doi.org/10.1145/2579990>.
48. Sullivan, D. (2014). Google Is Experimenting with Special Ranking for Mobile-Friendly Sites, Search Engine Land blog as of 18 November 2014, <http://searchengineland.com/google-special-ranking-mobile-friendly-sites-208957> (pristupljeno 9. septembra 2018).
49. Weideman, M. (2009). *Website Visibility: The Theory and Practice of Improving Rankings*, 1st edition. Oxford: Chandos Publishing.
50. Wenyu D., Kai H.L., Chenting S., Nan Z., Nan C. (2010). Brand Positioning Strategy Using Search Engine Marketing, *MIS Quarterly*, Vol. 34 (2), 261-279. doi: 10.2307/20721427.
51. Willson, A. (2017). 10 Reasons Your Website Can Have a High Bounce Rate, Search Engine Journal blog as of 3 January 2017, <https://www.searchenginejournal.com/10-reasons-website-can-high-bounce-rate/182260/> (pristupljeno 6. septembra 2018)
52. Zand, J., Cohen, P. (2016). U.S. Banks' Digital Engagement, SimilarWeb report from May 2016, <https://www.similarweb.com/corp/reports/us-banks-website-and-mobile-app-engagement/> (pristupljeno 20. avgusta 2018)
53. Zhang, J., Dimitroff, A. (2005). The Impact of Metadata Implementation on Webpage Visibility in Search Engine Results (Part II), *Cross-Language Information Retrieval, Information Processing and Management*, Vol. 41 (3), 691-715. doi: 10.1016/j.ipm.2003.12.002