PRIMENA SISTEMA BALANCED SCORECARD (BSC) U POSLOVNOJ BANCI

Dr Ljiljana Kontić, *Vanredni profesor, Univerzitet MB, Poslovni i Pravni fakultet*
email: ljiljana.kontic@yahoo.com,
Jovan Kontić, magistar ekonomskih nauka
email: jokon@Eunet.rs

Rezime:

U radu se razmatra model BSC koncept domaćoj poslovnoj banci. Kako bi se stekla kompletna slika o dugoročnoj efikasnosti banke neophodno je uključiti nefinansijske indikatore kao što su perspektiva klijenata, interni poslovni procesi, kao i učenje i razvoj. Rezultati su pokazali da se predloženi model može koristiti u banci iz tranzicionog okruženja. Izbalansirana karta rezultata omogućava menadžerima banke da procene sve faktore u cilju implementacije strategijskih ciljeva.

Ključne reči: BSC koncept; poslovna banka; strategija; Srbija

JEL klasifikacija: G21, M21

Uvod

Od kada je početkom XXI veka zaključeno da intelektualni kapital utiče na proces stvaranja vrednosti, neophodno je pronaći način merenja intelektualne imovine. Najpodesniji model, nastao krajem XX veka je Izbalansirana karta rezultata (u daljem tekstu IKR). Uspeh i dostizanje izvanrednih performansi bilo koje organizacije dostiže se ne samo finansijskim performansama, već merenjem i upravljanjem neopipljivim resursima. U ovom radu se razmatra holistički model IKR u jednoj banci koja posluje na srpskom tržištu. Cilj primene IKR koncepta je pružanje menadžerima kompletnog uvida u poslovanje, kao i fokusiranje na potencijalno kritične oblasti (Kontić i Čabrilo, 2009).

Primećeno je da rigidna kontrola i nadzor banaka omogućava ranu detekciju opadanja performansi u cilju sprečavanja bankrotstva pojedinačnih banaka i tako prelivanja negativnog uticaja na realni sektor ekonomije. Supervizori u bankarskom sektoru imaju posebne tehnike za otkrivanje potencijalnih problema u bankama. Sve banke koje posluju na jednom tržištu moraju da primenjuju regulativu propisanu od strane Centralne banke, odnosno Narodne banke Srbije. Pored periodične revizije, kontrola se sprovodi i fizičkim dolaskom u prostorije banke, najmanje jednom godišnje. Osnovni cilj kontrole je blagovremeno identifikovanje ozbiljnih problema čijim se rešavanjem sprečava likvidacija banke. Sve mere Narodne banke Srbije kojima se sprečava bankrotstvo povećavaju poverenje u ukupni bankarski sistem.

Prema sopstvenom saznanju, u Srbiji su sprovođena različita i kvantitativna i kvalitativna istraživanja merenja performansi banaka od strane brojnih autora (Vuksanović i Todorović, 2011; Domanović, 2013a; Domanović, 2013b; Lukić, 2021), ali malo njih je koristilo model IKR (Todorović i saradnici, 2012; Radić, 2016).

Postoje dva osnovna pristupa merenja performansi putem stejkholdera i akcionara (Domanović, 2010). Bez obzira koji se pristup izabere, neophodno je da se strategija dekomponuje na specifične strategijske ciljeve. Prema pristupu stejkholdera - svih grupa zainteresovanih za poslovanje organizacije, finansijski i nefinansijski faktori obuhvaćeni modelom izbalansirane karte rezultata determinisaće izbor strategije.

Cilj ovog rada je da istraži da li izbalansirana karta rezultata, kao usklađeni sistem merenja, predstavlja adekvatan model za procenu performansi u jednoj banci na srpskom tržištu. Iz toga razloga, prvi deo je posvećen metodologiji IKR, sa pregledom prethodnih studija. Drugi deo je posvećen kontekstu istraživanja, srpskom bankarskom sektoru. Zatim je prikazana metodologija istraživanja i rezultati istraživanja. Poslednji deo sumira glavne ideje, istovremeno ukazujući na ograničenja studije i daje predlog za naredno istraživanje.

Koncept izbalansirane karte rezultata

Početkom 1990-ih godina Kaplan i Norton (1992) su formulisali model IKR sa osnovnom idejom da pomogne menadžerima u procesu implementacije strategije. Od tada su autori razvili konceptualne i praktične karakteristike modela publikujući knjige (1996a, 2000) i radove u časopisima (1993, 1996b, 2001, 2004). Koncept IKR obuhvata finansijske i nefinansijske indikatore izabrane u cilju implementacije ključnih faktora uspeha uključenih u viziju banke. Pored finansijske perspektive, Kaplan i Norton (1992) uvode tri perspektive: potrošače, interne poslovne procese, kao i učenje i razvoj. Ovi faktori predstavljaju buduće performanse banke, za razliku od finansijskih indikatora koji predstavljaju prošle indikatore.

Analiza relevantne literature pokazala je različita istraživanja implementacije IKR u različitim organizacijama. Potrebno je istaći da se primena IKR u uslužnom sektoru razlikuje od primene u proizvodnom sektoru. Autori, takođe zaključuju da je IKR holistički pristup merenju performansi u bankarskom sektoru (Ozturk i Coskun, 2014). Tabela 1 ilustruje pregled prethodnih istraživanja čiji je predmet bio implementacija IKR u bankarskom sektoru različitih država sveta.

Tabela 1. *Pregled prethodnih istraživanja*

	Država	Metodologija	Glavni rezultati
Wu (2012)	Kina	Strukturalna procena, analiza studije slučaja	Strategijske mape pomažu menadžmentu da odredi prioritete i da se fokusira na ključne indikatore.
Tuan (2020)	Vijetnam	SPSS 22 je korišćen za prikupljanje i analizu podataka iz 109 upitnika koje su popunili menadžeri u 4 komercijalne banke.	Primena IKR je pomogla poboljšanju poslovnih performansi u analiziranim bankama.
Al-Najjar i Kalaf (2012)	Irak	Uzročno-posledične veze između finansijskih i nefinansijskih perspektiva IKR.	Primena IKR u iranskim bankama na način kako da strategijsku viziju pretvore u performanse.
Balkovskaya i Filneva (2016)	Rusija	DEMATEL metod	Strategijske mape pomažu menadžerima da odrede prioritete u kontekstu ograničenih resursa.
Rostami i sar. (2015)	Iran	Fuzzy Analitical Hierarchy Process (FAHP)	Rang 1 su imali klijenti, rang 2 finansijski aspekti, rang 3 interni procesi i na kraju učenje i razvoj.
Dincer i sar. (2020)	Turska	Analytic Network Process Approach	Finansijske performanse rang 1, klijenti 2, učenje i razvoj rang 3 i rang 4 interni procesi.
Panicker i Seshadri (2013)	Standard Chartered Bank (SCB), strana banka u Indiji	Uzročno-posledične veze između finansijskih i nefinansijskih perspektiva IKR.	Banke treba da analiziraju i shvate značaj IKR kao tehnike za postizanje dugoročnih ciljeva.

Izvor: Izbor autora relevantnih studija

Iz perspektive IKR, finansijski indikatori su važni, ali se mogu kompenzovati sa ostala tri indikatora intelektualnog kapitala ili neopipljivih resursa koji su neophodni za budući razvoj, kao i za ostvarivanje i zadržavanje konkurentske prednosti. Sve četiri perspektive su povezane sa strategijom i stvaraju holistički model koji omogućava svim zaposlenima da doprinesu uspehu banke. Implementacija IKR u određenoj privrednoj grani treba da uvaži specifičnosti privredne grane (Kaplan i Norton, 1996a, 34). Međutim, model ima i određena ograničenja na koja su ukazali različiti autori (Nørreklit, 2000; Heinz, 2001; Kennerly i Neely, 2002; Olson i Slater, 2002).

Bankarski sektor u Srbiji

Na osnovu uvida u finansijske izveštaje koje su sve banke dužne da dostave Narodnoj banci Srbije, na dan 6.10.2021. god., 24 banaka je poslovalo u Srbiji (Narodna banka Srbije, 2021). U tabeli 2 su prikazani izabrani indikatori bankarskog sektora u Srbiji.

Tabela 2. *Pregled izabranih indikatora u bankarskom sektoru u Srbiji (u %)*

Banke	Broj banaka	Imovina	Kapital	Filijale	Zaposleni
Domaće banke	7	24,3	25,6	34,9	28,9
Državne	4	16,8	15,4	27,8	22,6
Privatne	3	7,5	10,2	7,1	6,3
Strane banke	19	75,7	74,4	65,1	71,1
Italija	2	26,8	26,3	14,7	19,0
Austrija	2	13,5	12,7	11,6	11,9
Francuska	1	2,9	1,8	5,1	4,0
Mađarska	2	13,5	11,6	15,0	14,2
Ostale	12	19,1	22,0	18,6	22,0
Ukupno	26	100	100	100	100

Izvor: Narodna banka Srbije (2020)

Istraživanje je sprovedeno u domaćoj poslovnoj banci. Bankarski sektor je izabran iz sledećih razloga: zato što je bankarstvo jedna od vitalnih privrednih grana u svakoj ekonomiji i kada je konkurentna i efikasna ima pozivno dejstvo na ostale privredne grane u nacionalnoj ekonomiji. Tokom poslednje tri decenije dešavale su se značajne promene u bankarskom sektoru u Srbiji (Kontić i Kontić, 2009; 2012). Rezultati su smanjenje broja banaka, likvidacija malih banaka i preuzimanja od strane inostranih banaka. Posledica je inteziviranje konkurencije u bankarskom sektoru.

U cilju sticanja i zadržavanja konkurentske pozicije neophodno je da banke mere i opipljive i neopipljive resurse.

Finansijska perspektiva je prva i osnovna dimenzija modela IKR, jer se sve ostale dimenzije mere kako bi se poboljšalo finansijsko zdravlje. Model se koristio i u ostalim državama za merenje efikasnosti banaka. Početna hipoteza istraživanja je:

H0: Ako banka koristi model IKR za merenje ukupnih performansi, onda se dobija kompletna slika dugoročne efikasnosti banke.

Podaci su prikupljeni iz sekundarnih izvora (npr. kvartalni i godišnji izveštaji Narodne banke Srbije i godišnji izveštaji Banke). Skorovi su kvalitativno analizirani sa ciljem da se odredi da li je model podesan za merenje efikasnosti u bankarskom sektoru u Srbiji.

Metodologija

Svrha svaka banke je obezbeđivanje dugoročnog rasta i razvoja. Banke iz toga razloga mere neopipljive resurse koji su ključni za savremeno poslovno okruženje. Njihovo merenje zahteva uvođenje nefinansijske dimenzije u sistem merenja i upravljanja bankom. Jedan takav model je IKR na šta ukazuju istraživanja drugih autora. Autori će prikazati komplementarnu upotrebu modela IKR. Analiziraće se efikasnost putem sledećih perspektiva: finansijske, klijenata, internih procesa, kao i učenja i razvoja.

Iz finansijske perspektive, ciljevi su: opstanak, razvoj, satisfakcija stejkholdera i prihod. Predložena merila mogu biti: likvidnost, ROI, ROE, margina profita i leveridž racio (Abdurizzag, 2017, s.10). Ciljevi banke iz perspektive internih poslovnih procesa su: povećanje inovacija, poboljšanje operativnih kapaciteta i efikasnost poslovnih aktivnosti. Merila mogu biti: rast produktivnosti, rast bančinih usluga, rast kreditnih plasmana, veći broj softverskih aplikacija i povećanje osoblja koje direktno radi sa klijentima. Što se tiče klijenata, ciljevi su njihovo zadržavanje, privlačenje novih i povećanje tržišnog učešća. Važno je meriti satisfakciju klijenata, rast tekućih i štednih računa, kao i rast depozita. Ciljevi, iz perspektive učenja i rasta su poboljšanje sposobnosti zaposlenih, njihovo zadovoljstvo i povećanje upotrebe informacionih tehnologija (IT). Merila mogu biti: produktivnost zaposlenih, koeficijent obrta, rast broja filijala, učešće zaposlenih u razvojnim programima, povećanje broja zaposlenih i korišćenje IT u svakodnevnom radu (Abdurizzag, 2017, s. 10). Osnovni istraživački cilj je implementacija IKR modela u domaćoj poslovnoj banci.

Rezultati istraživanja

Primena modela IKR analizirana je kroz sve četiri perspektive, finansijsku, internih poslovnih procesa, klijenata, kao i učenja i razvoja.

Finansijska perspektiva - Korišćeni su sledeći finansijski indikatori: likvidnost, ROE, ROA i racio leveridža (videti Tabelu 3). Autori ukazuju na važnost pravovremenog izveštavanja o novčanim tokovima (Knežević&Mitrović, 2018).ž

Tabela 3. *Finansijski indikatori u Banci*

Indikator	31.12.2019.	31.12.2020.	30.9.2021.
Likvidnost[1]	0,2195	0,1775	0,1291
ROE[2]	34,63	13,4736	0,0081
ROA[3]	4,39	0,0037	0,0024
Racio leveridža[4]	7,89	3,642	3,375

Izvor: Kalkulacije autora

1 Likvidna sredstva/obaveze

2 Profit pre oporezivanja/Ukupan kapital

3 Profit pre oporezivanja/Ukupna sredstva

4 ROE/ROA

Narodna banka Srbije reguliše standarde za likvidnost banaka na sledeći način: treba da bude najmanje 1 u svim radnim danima u tekućem mesecu; ne sme da bude niža od 0,9 više od tri uzastopna dana u mesecu, kao i da na kraju svakog radnog dana treba da bude najmanje 0,8.

Iz ove perspektive internih poslovnih procesa, tri su osnovna cilja: povećati inovacije, povećati kapacitete i povećati operativnu efikasnost (Abdurizzag, 2017, s. 10). Merila mogu biti: rast produktivnosti, rast bančinih usluga, rast kredita, povećanje broja softverskih aplikacija, kao i povećanje broja zaposlenih koji su u direktnom kontaktu sa klijentima.

U martu 2020. godine realizovani s sledeći projekti (Izveštaj Banke, 2020, s. 67):

• Potpuna automatizacija međunarodnih plaćanja sa izveštavanjem na 10 dana,

• Usvajanje "cloud-based collaboration" alata,

• Protokol za realizaciju sastanaka,

• Potpuno usvajanje elektronskog sistema internih mejlova i potpisivanja dokumenata.

Pandemija Covid-19 pokrenula je promene bančinog budućeg modela razvoja. Iz toga razloga pokrenuti su i sledeći projekti: Smart Working (dizajn kancelarija, organizacija i digitalna komunikacija) i projekti sa stanovništvom (povećanje efikasnosti poslovne mreže, samouslužno bankarstvo, smanjenje troškova).

U pogledu upravljanja rizičnim plasmanima, u periodu od 2015. do 2020. godine, u posmatranoj Banci došlo je do značajnog smanjenja učešća loših plasmana (engl. non-performing loans NPL) sa 32,3% u 2015. god. na 6,2% u 2020. god.

Zadovoljstvo klijenata je značajno merilo performansi u bankarskom sektoru, jer direktno utiče na povećanje prihoda i profit. Praktično, lojalnost klijenata je iznad kategorije zadovoljnog klijenta i predstavlja faktor postizanja dugoročne profitabilnosti Banke. Banka treba da obezbedi visok nivo poverenja koji će u njeno poslovanje imati njeni klijenti. Kako meriti zadovoljstvo i lojalnost klijenata, obzirom na činjenicu da su u pitanju meki faktori uspeha?

Iz perspektive klijenata, tri su osnovna cilja: zadržavanje klijenata, privlačenje novih i povećanje tržišnog udela Banke. Stoga je važno meriti povećanje broja klijenata, njihovo zadovoljstvo, povećanje broja tekućih računa, povećanje broja štednih računa i rast depozita.

U posmatranoj Banci klijenti su kategorisani na sektor stanovništva i korporativni sektor. Rezultati analize su pokazali da je zajmovni portfolio klijenata bio sledeći (u milionima evra) u periodu 2015. god. do 2020. god. 175, 208, 274, 327, 368 i 387,6 (Bank Report, 2020, p. 55).

Prema definisanim kriterijumima Narodne banke Srbije, kvalitet kreditnog portfolija u posmatranoj Banci se može proceniti kao veoma dobar, sa 89,66% kredita kategorija A, B i V, kao i 10,34% visoko rizičnih kredita - kategorija G i D.

Tri su osnovna cilja iz perspektive učenja i rasta , a to su: povećati sposobnosti zaposlenih, povećati zadovoljstvo zaposlenih i povećati upotrebu IT. Merila mogu biti sledeća: produktivnost zaposlenih, koeficijent obrta zaposlenih, povećanje broja filijala, učešće zaposlenih u razvojnim programima Banke, povećanje broja zaposlenih, kao i upotreba IT u svakodnevnom radu (Abdurizzag, 2017).

Na osnovu podataka iz Izveštaja Banke (2020), analiza je obuhvatila podatke o broju novozaposlenih, koeficijentu obrta, ukupnim časovima treninga, kao i prosečnim časovima treninga po menadžeru i po zaposlenom (videti Tabelu 4).

Tabela 4. *Treninzi i zaposlenost u periodu 2015-2019. god.*

Godina	Ukupan broj časova treninga	Prosečan br. časova treninga po menadžeru	Prosečan br. časova treninga po zaposlenom	Broj novozaposlenih	Koeficijent obrta (u %)
2015.	15,216	10,10	10,55	76	5,32
2016.	21,325	10,45	11,35	105	7,60
2017.	21,325	10,55	11,25	97	5,84
2018.	21,400	10,15	11,55	104	6,34
2019.	21,920	10,50	11,50	139	9,50

Izvor: Adaptirano prema podacima iz Izveštaja Banke (2020): 122, 124.

U martu 2020. godine IT odeljenje se suočilo sa dva velika izazova. Bilo je potrebno izmestiti svu opremu i instalacije Banke iz prostorija ka domovima zaposlenih. Istovremeno, Narodna banka Srbije je uvodila nove regulatorne projekte.

Zaključak i preporuke za menadžere banke

Izbalansirana karta rezultata ima značajnu ulogu u procesu merenja efikasnosti bankarskog sektora. Model IKR ukazuje na četiri perspektive: finansijsku, interne poslovne procese, klijente, kao i učenje i razvoj. Omogućava prevođenje vizije i strategije, definišući strategijske veze i povezujući performanse u posmatranoj Banci, komunicirajući ciljeve i indikatore u filijalama, kao i isticanje strategijskih inicijativa. Kada se potpuno primeni, zaposleni u Banci razumeju šta i kako treba da rade da bi doprineli realizaciji strategije. Takođe, model IKR se može koristiti kao osnova za sistem nagrađivanja i daje povratne informacije menadžerima o implementaciji strategija.

Na osnovu prethodnih istraživanja i rezultata ove studije, glavne smernice za menadžere su sledeće:

• Pre nego što se pristupi operacionalizaciji indikatora, neophodno je detaljno analizirati model IKR.

• Prilagoditi IKR konkretnoj kulturi poslovne banke, uključiti zaposlene u sve faze - od formulizacije do implementacije modela.

• Pažljivo upravljati procesom, sa posebnom pažnjom na otpore promenama.

Sledeće pitanje koje se postavlja je: Kako da većina banaka u Srbiji primeni model IKR? U većini slučajeva, banke koriste kvantitativne indikatore kao što su profitabilnost, tržišni udeo i neke kvalitativne indikatore npr. novi koncept, novi dizajn, novi proizvodi, veštine prodaje, zadovoljstvo klijenata. Do kojeg nivoa se indikatori prate i mere zavisiće i njihova povezanost sa strategijom i ciljevima Banke. Koliko su indikatori u skladu sa alokacijom nagrada i mnoge druge dileme prilikom primene IKR u Srbiji, biće predmet narednih istraživanja.

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IMPLEMENTATION OF BALANCED SCORECARD IN DOMESTIC COMMERCIAL BANK

Ljiljana Kontić, PhD, associate professor, University MB, Faculties of Business and Law
email: ljiljana.kontic@yahoo.com,
Jovan Kontić, Master of Economics
email: jokon@Eunet.rs

Summary:

The paper discusses the Balanced Scorecard model in one bank that operates on Serbian market. To obtain a more complete image of the bank efficiency in the long term, it is necessary to include non-financial indicators, such as clients` perspective, internal business processes, as well as learning and growth. The results showed that proposed model can be used in banking sector in one transition economy. Balanced Scorecard has been allowed bank`s managers to assess all factors in order to implement strategic goals.

Keywords: Balanced Scorecard; commercial bank; strategy; Serbia

JEL classification: G21, M21

Introduction

Since that intellectual capital affects value creation processes in the XXI century, it is necessary to find out the way to measure the intellectual assets. The most prominent model in the last decade of XX century is a Balanced Scorecard (BSC) model. The success and the excellence of an organization is the result not only from the financial performance but from measuring and managing the intangible assets. The paper discusses the holistic model i.e., BSC in one bank that operates in Serbian market. The aim of the Balanced Scorecard (BSC) is to give managers a comprehensive view of the business and allow them to focus on critical areas (Kontić&Čabrilo, 2009).

It is noticed that rigid control and supervision of banks consists of an early insight of performance deterioration position of individual banks in order to prevent the bankruptcy of individual banks that may affected on the real sector of economy. Banking supervisors have available range of techniques to detect problem in the banks. In other words, all banks that operated in one market, have been obtained prescribed regulations defined by Central Bank i.e. National Bank of Serbia. Apart from the periodic supervision, using computerized monitoring system (based on quarterly banking data), the regulators also perform field-testing of commercial banks, at least once a year. Bank control is conducting with an aim of timely correction of identified serious issues that may cause liquidation of one bank. Of course, any bankruptcy prevented by the National Bank of Serbia increases the trust in the overall banking system.

In the case of Serbian banking sector, there are various studies, both quantitative and qualitative, in domain of measurement banks` performances (Vuksanović & Todorović, 2011; Domanović, 2013a; Domanović, 2013b; Lukić, 2021), but only few have been used BSC model (Todorović et al., 2012; Radic, 2016).

Table 1. *Review of the past studies*

Authors	Country	Methodology	Main results
Wu (2012)	China	Structural evaluation methodology, case study	Strategic map to assist management in prioritizing the performance indicators and in focusing attention on the strategy-related activities of the crucial indicators.
Tuan (2020)	4 Vietnamese commercial banks	SPSS 22 was used to collect and analysis data, basing on the results of 109 questionnaires of managers and head of department from Vietnamese commercial banks.	The application of balanced scorecard helped to improve the business performance in observed banks.
Al-Najjar & Kalaf (2012)	Iraq	The cause-effect relationships between the non-financial, and the financial dimensions of the BSC.	How banks in Iraq may apply the BSC to evaluate their performance, and how they might turn strategic vision into potential performance.
Balkovskaya & Filneva (2016)	Rusia	DEMATEL method	Strategic map that helps managers to prioritize their strategic steps in the limited resources context.
Rostami et al. (2015)	Iran	Fuzzy Analytical Hierarchy Process (FAHP)	The rang 1 had customer aspect, the rang 2 had financial aspect, rang 3 had an internal processes, and at the end, learning and growth perspective.
Dincer et al. (2020)	Turkish banking sector	Analytic Network Process Approach	Financial factor had the first rank; Customer perceptive was in the second rank; Learning and growth stayed in the third rank, and Internal factor has the weakest importance.
Panicker & Seshadri (2013)	Standard Chartered Bank (SCB), a foreign bank in India	The cause-effect relationships between the non-financial, and the financial dimensions of the BSC.	Banks can consider and realize the importance of this tool as a strategic and valuable performance management system.

Source: Authors` selection of relevant studies

There are two main approaches to performance measurement stakeholder and shareholder approach (Domanović, 2010). Whatever approach managers were chosen, it is necessary to transmit the strategy into the set of specific goals and objectives. According to the stakeholder approach, the financial and non-financial factors incorporated in Balanced Scorecard model would determine the strategic choice.

The aim of this paper is to examine whether the Balanced Scorecard, as a contemporary performance measurement system, is an appropriate model for evaluating the performances in one bank at Serbian market. In that sense, the first section is devoted to the Balanced Scorecard methodology, with review of past studies. The second section of the paper is devoted to research context i.e., Serbian banking sector, followed by Research Methodology and Research Findings. Final section summarized main ideas with study limitations and future research agenda.

Theoretical Background

In the early 1990s, the Balanced Scorecard (BSC) has been developed by Kaplan and Norton (1992). The main purpose of BSC is to help managers in the process of strategy implementation. Since then,

these authors were continually developing its conceptual and practical characteristics through books (1996a, 2000), and articles (1993, 1996b, 2001, 2004). The concept of BSC includes financial and non-financial indicators selected in order to implement key success factors embodied in vision of the bank. Aside from the financial perspective, Kaplan and Norton (1992) introduced three perspectives i.e., Customer, Internal business process, and Learning and Growth. These categories represent indicators of future bank performance, contrary to financial perspective which represents former bank performance.

The results of relevant literature analysis have been revealed various studies about BSC implementation in different organizations. It is worth to notice that development and implementation of BSC in service sector are different from manufacturing sector. In their literature review about implementation of BSC in banking sector, Ozturk & Coskun (2014) concluded that BSC is a holistic approach for measuring bank`s performances. Table 1 illustrates review of past research about implementation of BSC in banking sector worldwide.

From the BSC perspective, financial measures are important, but it can be supplemented with other three indicators of the ''intellectual capital'' or ''invisible assets'', which is necessary for future growth and to obtain and sustain competitive position. These four perspectives are linked to the strategy and create a holistic model of strategy that allows all employees to see how they can contribute to the success of company. To implement BSC in specific sector, it is necessary to include further perspectives (Kaplan and Norton, 1996a, 34).

However, the Balanced Scorecard model has some limitations suggested by different authors (Nørreklit, 2000; Heinz, 2001; Kennerly and Neely, 2002; Olson and Slater, 2002).

Research Context

Based on the financial statements that the banks are obliged to submit to the NBS, on August 4th, 2021, 25 banks were operating in Serbia (National Bank of Serbia, 2021). Concluded with October 6th, 2021, the total number of banks which take business in Serbia was twenty-four. Table 2. shows the review of the selected indicators of banking sector in Serbia.

Table 2. *Review of the Selected Indicators of the Banking Sector in Serbia (in %)*

	Number of banks	Assets	Capital	Branches	Employees
Domestic banks	7	24.3	25.6	34.9	28.9
Stateowned	4	16.8	15.4	27.8	22.6
Private	3	7.5	10.2	7.1	6.3
Foreign banks	19	75.7	74.4	65.1	71.1
Italy	2	26.8	26.3	14.7	19.0
Austria	2	13.5	12.7	11.6	11.9
France	1	2.9	1.8	5.1	4.0
Hungary	2	13.5	11.6	15.0	14.2
Others	12	19.1	22.0	18.6	22.0
Total	26	100	100	100	100

Source: National Bank of Serbia (2020)

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The research was conducted in one bank in Serbia. Banking sector has been chosen as the research context for the following key reasons: Banking sector is a vital service industry in any economy, and when it is competitive and efficient, it is able to spur positive impact on other industries. Over the past three decades, the banking sector in Serbia has witnessed substantial changes (Kontic & Kontic, 2009; 2012). There is evidence of a decrease in the number of banks, a dissolution of small, non-viable banks, and a take-over of the market by foreign banks. As a consequence of this process, competition in the banking sector is highly intensified.

To gain and sustain competitive position, it is necessary for the banks to measure all assets i.e., tangible as well as intangible.

The financial perspective is the first and primary dimension of the BSC model. The financial one is the primary dimension because all other non-financial dimensions are measured in order to improve the performance of the financial perspective. BSC model is a comprehensive model for measuring and managing the efficiency of banks. Hence, it is possible to define initial hypothesis, which will be tested analyzing data from the four perspectives of BSC model:

H0: If a bank applies BSC model in measuring total performance, then there is more complete image about bank efficiency in the long term.

Data received from the secondary sources (i.e., quarterly and annual reports of National Bank of Serbia and annual bank reports) was used for the case study. The scores are analysed in a qualitative manner. Specifically, the intention is to determine if the BSC model is suitable for use in measuring efficiency of the banking sector in Serbia.

Research Methodology

The purpose of any bank as well is to maintain, grow and develop in the long term. Bearing this in mind, the banks are forced to measure and manage intangible assets, which is the most important value driver in the contemporary business environment. Measuring intangible assets inevitably implies introducing non-financial dimensions into the bank performance measurement and management model. Such a model is the BSC model. Thus, the other research finding is that most appropriate model of banks performance measurement in the long term is the BSC model. The text below is going to show in detail the concrete implementation of the BSC model in the process of the banks' efficiency evaluation in Serbia. The authors are going to present the complementary use of the BSC model. Thus, the authors are going to analyze an efficiency of the banking sector through performance measures from different perspectives: finance, client, internal processes, innovation, and learning and growth.

From financial perspective, the objectives are: survival, growth, stakeholder satisfaction, and revenue. The proposed measures may be: liquidity, ROI, ROE, profit margin, and leverage ratio (Abdurizzag, 2017, p.10). The objectives from internal business processes are: increase innovation, improve operational capabilities as well as improve operational efficiency. These objectives can be measured through productivity growth, growth of banking services, credit growth, growth of software application, and increase of front office employees. Regarding clients, objectives are client retention, attraction of new clients, and increase of market share. It is important to measure clients' satisfaction, growth of current and saving accounts as well as growth of safety deposits. The objectives of Learning and Growth perspective are to improve employees' capabilities and satisfaction as well as to improve information

technologies (IT). Aforementioned can be measured by employees productivity, employees' turnover, growth of banks branches, employees participation in development programs, number of employees, and using IT in their work (Abdurizzag, 2017). The main purpose of this study is to implement BSC method in one domestic commercial bank.

Research Findings

SImplementation of BSC model has been analyzed through all four perspectives i.e., Financial, Internal business process, Client, as well as Learning and Growth.

Financial perspective can be used the measures such as: liquidity, ROE, ROA, profit margin and leverage ratio (see Table 3). The authors have emphasized that it is important to provide timely information on cash flows (Knezevic & Mitrovic, 2018).

Table 3. *Measures of Financial Perspective in the Bank*

Indicator	31.12.2019.	31.12.2020.	30.9.2021.
Liquidity[1]	0.2195	0.1775	0.1291
ROE[2]	34.63	13.4736	0.0081
ROA[3]	4.39	0.0037	0.0024
Leverage Ration[4]	7.89	3.642	3.375

Source: Authors` calculation

1 Liquid assets/liabilities

2 Profit before tax/Average total capital

3 Profit before tax/Average total assets

4 ROE/ROA

The National Bank of Serbia regulates standards for bank liquidity in a following manner: It has to be at least 1 for all working days in the month; It has not been less than 0.9 for more than 3 consecutive working days, and at the end of each working day has to be at least 0.8.

From the perspective of Internal Business Processes, there are three main goals: to increase innovation, to improve operational capabilities, and to improve operational efficiency (Abdurizzag, 2017, p. 10). The proposed measures may be: productivity growth, growth of banking services, credit growth, growth in software application, as well as front office employees.

In March 2020, the following organizational and operational projects have been realized (Bank Report, 2020, p. 67):

• Full automation of international payments and ten days reporting,

• Adoption of cloud-based collaboration tool,

• Policy for the conduction of meetings, committees,

• Full adoption of electronic workflow system for the internal circulation and signing of documents.

The Covid - 19 pandemic introduced initiative for change of the Bank model in the future. Therefore, the following projects have been initiated: Smart Working (i.e., teleworking technology, design of office space, organization redesign, digital communication), Retail Projects (i.e., network efficiency, self-service banking, predictive analytics, and cost efficiency).

Regarding troubled assets management, in period 2015 to 2020, non-performed loan (NPL) ratio significantly decreased over the years (from 32.3% in 2015 to 6.2% in 2020).

Client`s satisfaction presents a significant performance measure of the banking sector, because it also directly affects the services turnover and income levels, and ultimately the profit. Practically, the principle of loyalty is above the category of satisfied client and shows the factor of achieving a long-term profitability of the banks. This means that banks need to provide a higher level of trust in their own business. An interesting question is how to measure the clients` satisfaction and loyalty, considering that it is about a soft factor, i.e., which are the most important criteria in clients` satisfaction.

From the Client perspective, there are three main objectives: client retention, attracting new clients, and to increase market share of the Bank (see Table 3). Therefore, it is important to measure clients' satisfaction, clients' growth, growth of current accounts, growth of saving accounts, and growth of safety deposits.

In the observed Bank, clients are divided into retail sector and corporate sector. The study analyzed the client loan portfolio (in million Euro) in the period 2015 to 2020, as followed: 175, 208, 274, 327, 368, and 387.6 in 2020 (Bank Report, 2020, p. 55).

According to criteria defined by National Bank of Serbia, the quality of credit portfolio in the observed Bank is very good with 89.66% of credits category A, B, and V, as well as 10.34% of high-risk credits - categories G and D.

They may be three main goals, from Learning and Growth perspective, such as to improve employees' capabilities, to improve employees' satisfaction, and to improve computerized system application (see Table 2). Some measures can be as followed: employees' productivity, employees' turnover, growth of the bank's branches, employees' participation in development programs, number of employees, as well as using IT in their work (Abdurizzag, 2017).

Based on the Banks Report (2020), the analysis in this study has been included data about new employee hires, turnover rate, total hours of training, as well as average hours of training per manager and employee (See Table 4).

Table 4. *Training and Employment in the Period 2015-2019*

Year	Total hours of training	Average hours of training per manager	Average hours of training per employee	New employee hires	Turnover rate (in %)
2015	15.216	10.10	10.55	76	5.32
2016	21.325	10.45	11.35	105	7.60
2017	21.325	10.55	11.25	97	5.84
2018	21.400	10.15	11.55	104	6.34
2019	21.920	10.50	11.50	139	9.50

Source: Adapted from Bank Report (2020): 122, 124.

In March 2020, IT department had faced two major challenges. It was necessary to move all equipment and installation from Bank`s facilities to employees' homes. At the same time, the regulatory project has been introduced by National Bank of Serbia.

Conclusion and Managerial Recommendation

The Balanced Scorecard model has a significant role in the process of measuring the efficiency of the banking sector. The BSC implies that performances could be viewed from four main perspectives: financial, customer, internal business process, and learning and growth. It translates vision and strategy, defines the strategic linkages to integrating performance across an observed bank, communicates objectives and measures to the branches, and aligns strategic initiatives. When fully implemented, it aligns employees in the bank that they understand how and what they can do to support the strategy. In addition, the BSC could be used as a basis for compensation and provides feedback to management about the strategy implementation.

Based on past research and this study, **the main recommendation for banks` managers** can be summarized as followed:

• Before operationalization of the measures, the BSC model should be analyzed in detail,

• Customized the BSC to bank`s culture, incorporate employees in all phasis (from formulation to implementation the model),

• Carefully manage the process, with attention on resistance to change.

However, the question is how many banks in Serbia will implement the BSC model? Generally, banks in Serbia apply quantitative indicators i.e., segment profitability, product profitability, the branch profitability; profitability per employee, market share, and some qualitative indicators i.e., new concept, new design, new products, sales skills, customer satisfaction). Whether and to what extent the bank monitors and measures the impact of qualitative to quantitative indicators, how much these indicators are in line with the defined strategy and objectives of the banks, how much these indicators are in accordance with the allocation of rewards and incentives of employees, and many other similar questions that are actually related to the issue of whether the banking sector in Serbia implement the BSC model, will be subject to special consideration by the forthcoming research efforts.

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Jovan Kontić

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