



Sarajevo Business and Economics

Review

Vol. 37

December
2019

RIJEČ UREDNIKA
Jasmina Selimović

ORIGINALNI NAUČNI RADOVI

Modeliranje i prognoziranje BDP Bosne i Hercegovine primjenom ARIMA modela
Ademir Abdic, Emna Resic, Adem Abdic, Fahr Kanlic

Ključni faktori uspješnosti ženskog preduzetništva u kontekstu tranzicijskog i post-konfliktnog okruženja u Bosni i Hercegovini
Munira Šestić, Elvir Čizmat, Senad Softić

PREGLEDNI NAUČNI RADOVI

Impact of non-performing loans on the banking sector capital adequacy, with the prediction of their movements
Kemal Kozarić, Emna Žunić

Change management in tourism: The case of North Macedonia
Dimitar Kovachevski, Snezana Hristova, Ana Tomovska Misoška

Economic determinants of students' academic achievement in Bosnia and Herzegovina
Eldar Komar, Emna Kuloglija

Evaluacija okvira za analizu održivosti upravljanja javnim dugom BiH
Mirza Krsto, Kemal Kozarić

Bečka konvencija o međunarodnoj prodaji robe: kamo dalje?
Vedad Silajdžić, Fatma Mahmutćehajić

Tržišna orijentacija porodičnih preduzeća u Bosni i Hercegovini
Emir Kuriović, Denis Berberović, Emir Ferhatović

From charity and socially responsible to shared value companies – from shareholder and state to stakeholder capitalism
Zlato Lagumdžija, Lamija Čeremida

Success despite lack of support: lessons learned from hidden champions doing business in fragile business environments
Denis Berberović, Merima Činčarević, Amra Koto

**ZBORNİK RADOVA / SARAJEVO BUSINESS AND
ECONOMICS REVIEW**

**EKONOMSKI FAKULTET U SARAJEVU
BROJ 37**

Izdavač:

Ekonomski fakultet
Izdavačka djelatnost

Glavni i odgovorni urednik:

Dekan
Prof. dr. Jasmina Selimović

Redakcija

Prof. dr. Elvir Čizmić, urednik
Prof. dr. Jasmina Selimović,
Doc. dr. Selena Begović,
Prof. dr. Maja Arslanagić Kalajdžić,
Doc. dr. Mirza Kršo, sekretar

DTP:

Anesa Vilić

Sarajevo, 2019.

ISSN CD ROM: 2303 - 8381

ISSN online izdanje: 2303 - 839X

SADRŽAJ/TABLE OF CONTENTS**ORIGINALNI NAUČNI RADOVI/ORIGINAL PAPERS**

- Modeliranje i prognoziranje BDP Bosne i Hercegovine primjenom ARIMA modela
Ademir Abdić, Emina Resić, Adem Abdić, Fahir Kanlić 9
- Ključni faktori uspješnosti ženskog preduzetništva u kontekstu tranzicijskog i post-konfliktnog okruženja u Bosni i Hercegovini
Munira Šestić, Elvir Čizmić, Senad Softić 35

PREGLEDNI NAUČNI RADOVI/REVIEW PAPERS

- Impact of non-performing loans on the banking sector capital adequacy, with the prediction of their movements
Kemal Kozarić, Emina Žunić 57
- Change management in tourism: The case of North Macedonia
Dimitar Kovachevski, Snezana Hristova, Ana Tomovska Misoska 75
- Economic determinants of students' academic achievement in BiH
Eldar Komar, Emina Kuloglija 89
- Evaluacija okvira za analizu održivosti upravljanja javnim dugom Bosne i Hercegovine
Mirza Kršo, Kemal Kozarić 104
- Bečka konvencija o međunarodnoj prodaji robe: kamo dalje?
Vedad Silajdžić, Fatima Mahmutćehajić 126
- Tržišna orijentacija porodičnih preduzeća u Bosni i Hercegovini
Emir Kurtović, Denis Berberović, Emir Ferhatović 138
- From charity and socially responsible to shared value companies – from shareholder and state to stakeholder capitalism
Zlatko Lagumdžija, Lamija Čeremida 158
- Success despite lack of support: lessons learned from hidden champions doing business in fragile business environments
Denis Berberović, Merima Činjurević, Amra Kožo 176

Riječ urednika

Poštovani,

Ovaj 37. broj periodične publikacije Zbornik radova /Sarajevo Business and Economics Review (SBER) simbolično objavljujemo u godini kada Ekonomski fakultet Univerziteta u Sarajevu obilježava 67 godina postojanja i uspješnog rada.

Ovom prilikom podsjećamo da je SBER od 2007. godine uvršten u bibliografsku bazu EBSCO PUBLISHING – BUSINESS SOURCE COMPLETE (Journals & Magazines) <http://www.epnet.com/titleLists/bt-journals.xls>, a od 2009. godine u CEEOL (Central and Eastern European Library) bazu (<http://www.ceeol.co>).

Od 2011. godine Zbornik radova Ekonomskog fakulteta u Sarajevu/Sarajevo Business and Economics Review je uvršten i u ProQuest Business package platformu, kao jednu od najprestižnijih svjetskih baza podataka iz oblasti ekonomije i biznisa.

Na koncu 2019. godine Ekonomski fakultet u Sarajevu (EFSA) može biti ponosan činjenicom da pripada zajednici najboljih fakulteta u jugoistočnoj Evropi, o čemu svjedoče najprestižnije međunarodne akreditacije za ocjenu kvalitete: američka AACSB, evropska EPAS i austrijska AQA. EFSA može biti i sretan zbog činjenice da je, od osnivanja do danas, iznjedrio više od 25.000 alumnija, i da u svom ansamblu okuplja 60 međunarodno referentnih nastavnika.

Biti indeksiran je veliki uspjeh za Zbornik radova/Sarajevo Business and Economics Review jer nas to čini dostupnim širokoj međunarodnoj naučnoj zajednici. Za nas, to znači dodatni angažman ali i obavezu s ciljem kontinuiranog poboljšanja kvaliteta objavljenih radova.

Glavni i odgovorni urednik,
Prof. dr. sc. Jasmina Selimović, dekan Fakulteta

A word by the Editor

To Whom It May Concern,

We publish this 37th issue of periodical publication Zbornik Radova/Sarajevo Business and Economics Review (SBER) symbolically, in the year when School of Economics and Business in Sarajevo, University of Sarajevo, marks its 67 years of existence.

We use this opportunity to remind you that SBER has been a part of the bibliographic data base EBSCO PUBLISHING – BUSINESS SOURCE COMPLETE (Journals & Magazines) <http://www.epnet.com/titleLists/bt-journals.xls> since 2007, and a part of CEEOL (Central and Eastern European Library) data base (<http://www.ceeol.co>) since 2009. In 2011 SBER was also included in ProQuest Business package platform, which is one of the most prestigious world data bases in the areas of economics and business.

At the end of 2019 Sarajevo School of Economics and Business (EFSA) can be proud with the fact that it belongs to a group of the best faculties in South East Europe, and the proof for that are the most prestigious international accreditations for quality assurance: American AACSB, European EPAS and Austrian AQA. EFSA can also be satisfied with the fact that, from its establishing until today, it has produced more than 25 000 alumni, and that it has 60 internationally recognized professors in its ensemble.

It is a great success for The Collection of papers of School of Economics and Business in Sarajevo/Sarajevo Business and Economics Review to be indexed, because it makes us available to a wider international research community. For us, it means an additional engagement, but also an obligation with the aim of a continuous improvement in quality of published papers.

Editor in Chief,
Jasmina Selimović, Ph.D,

**ORIGINALNI
NAUČNI RADOVI**

ORIGINAL PAPERS

MODELIRANJE I PROGNOZIRANJE BDP BOSNE I HERCEGOVINE PRIMJENOM ARIMA MODELA

Ademir Abdić

Ekonomski fakultet Univerziteta u Sarajevu

Emina Resić

Ekonomski fakultet Univerziteta u Sarajevu

Adem Abdić

Ekonomski fakultet Univerziteta u Sarajevu

Fahir Kanlić

Federalni zavod za statistiku

Abstrakt

U većini zemalja članica EU prva procjena BDP-a je dostupna 30 dana nakon završetka tromjesečja na koje se procjena odnosi (Eurostat, 2017). Osnovni cilj rada je istražiti mogućnosti upotrebe Box-Jenkins metodologije u izradi kratkoročnih prognoza BDP-a BiH. Kvartalna serija BDP BiH je dostupna za period 2000q1-2016q4. Uzimajući u obzir činjenicu da je a priori vrlo teško rangirati različite modele prognoze BDP-a njihov relativni rang je ocjenjen na osnovu empirijskih podataka. Konačni izbor modela prognoziranja kvartalnog BDP-a BiH odabran je na osnovu komparativne analize prediktivne efikasnosti analiziranih modela za period unutar uzorka (2000q1-2014q4) i za quasi period izvan uzorka (2013q1-2016q4). Na osnovu dobijenih rezultata istraživanja kao najefikasniji model u prognozama kvartalnog BDP-a BiH odabran je sezonski ARIMA (0,0,0) (1,1,0) 4 model.

Ključne riječi: kvartalni BDP, ARIMA modeli, nepristrasnost, tačnost prognoza

JEL klasifikacija: G3, G32, C4, C83

1. UVOD

Primjena savremenih ekonometrijskih modela kod prognoziranja ključnih makroekonomskih indikatora uglavnom se veže za razvijene zemlje svijeta. U zemljama u tranziciji, kao što je Bosna i Hercegovina (BiH), gdje se dešavaju strukturne promjene, tek posljednjih nekoliko godina se počinje govoriti o modeliranju i primjeni ekonometrijskih modela kod prognoziranja ključnih makroekonomskih indikatora.

Općenito je poznato da bruto domaći proizvod (BDP) zemlje služi kao osnova za kreiranje i donošenje ekonomskih razvojnih politika. Unutar jedne zemlje postoje različiti učesnici, kako na finansijskim tako i realnim tržištima, zainteresovani za pravovremene i pouzdane prognoze kretanja BDP. Pogrešne prognoze BDP rezultiraju nepouzdanim, a nerijetko, i pogrešnim odlukama i politikama koje mogu imati nesagledive posljedice za ekonomiju jedne zemlje. Efekat pogrešnih prognoza BDP može se ogledati u neadekvatnom izboru seta monetarnih i/ili fiskalnih mjera poduzetih od strane države u cilju preventivnog djelovanja na tržištu, u neprofitabilnim investicijama poduzetih od strane privrednih subjekata, ali i neadekvatnoj i neracionalnoj ličnoj potrošnji pojedinaca. Budući da se podaci o BDP smatraju najvažnijim indikatorom procjene ekonomskog rasta, pitanje ocjene kretanja BDP-a postalo je ključno pitanje među svim makroekonomskim indikatorima. Odluke monetarne i fiskalne politike utiču na ekonomiju sa zakašnjenjem, tako da donosioci ovih politika moraju gledati unaprijed odnosno moraju znati procjenu šta će se dogoditi u budućnosti. U cilju kreiranja adekvatnih prognoza BDP-a zemalja u drugoj polovini 20. stoljeća došlo je do brzog razvoja analize vremenskih serija tako da danas postoji više metoda koje omogućavaju kreiranje velikog broja različitih modela vremenskih serija. Većina metoda analize vremenskih serija zasniva se na pretpostavci da je stohastički proces koji generira pojavu u vremenu stacionaran i linearan. Za prognoziranje vremenskih serija koriste se modeli koji se temelje na metodologiji koja je prvi put razvijena u Box i Jenkins (1976) poznatoj kao ARMA (*engl. Autoregressive Moving Average Model*) metodologija.

Agencija za statistiku BiH (BHAS) je prvi put objavila kompilirane kvartalne procjene BDP BiH u junu 2013. godine. Navedene procjene BDP BiH su se odnosile na period 2006-2012. godine. Donosioci makroekonomskih politika i ekonomski analitičari kontinuirano procjenjuju stanje i perspektive u ekonomiji jedne zemlje. Međutim, prvi preliminarni podaci o BDP-u su dostupni na kvartalnoj bazi sa kašnjenjem u rasponu od 25-45 dana u razvijenim zemljama pa do nekoliko mjeseci u zemljama u tranziciji. Stoga, u većini slučajeva, u

realnom vremenu odluke se donose na osnovu nekompletnih podataka. Ovaj problem je naročito izražen kod zemalja u tranziciji gdje su konačni makroekonomski podaci dostupni jako kasno u odnosu na referentni kvartal. Blagovremena dostupnost pouzdanih makroekonomskih podataka postaje sve važnija kako za nositelje ekonomske politike tako i za privatne kompanije i predstavlja ključni korak u donošenju njihovih odluka budući da se ove projekcije koriste u ekonomskim analizama i dugoročnom planiranju poslovnih aktivnosti ekonomije. Stoga, kako bi premostile navedeni jaz u informacijama državne agencije za statistiku objavljuju procjenu poslovnih aktivnosti ekonomije.

2. METODOLOGIJA

Moderna analiza vremenskih serija razmatra pojedinačnu vremensku seriju kao jednu realizaciju generisanu od strane nepoznatog stohastičkog procesa. Pri tom se smatra se da ARIMA proces odgovara populacijskom „sistemu“ koji generira vremensku seriju. Identifikaciju osnovnog procesa generisanja posmatrane vremenske serije gotovo je nemoguće uraditi iz jedne realizacije bez postavljanja ograničenja na sam stohastički proces. Stoga se obično postavljaju ograničenja da je stohastički proces ergodičan i stacionaran. Pored ova dva uslova, autokorelacijska funkcija i parcijalna autokorelacijska funkcija pružaju korisne informacije o strukturi tipa stohastičkog procesa koji odgovara podacima. Ovakav pristup je formaliziran prvi put od strane Box i Jenkins (1976), a danas se smatra osnovom za modeliranje vremenskih serija. Općenito, ARIMA modeli se koriste za matematičku reprezentaciju ARIMA procesa. ARIMA modeli su kombinacija AR modela i MA modela. ARIMA modeli su postali pogodni za opisivanje kako stacionarnih tako i nestacionarnih, kako sezonskih tako i nesezonskih ekonomskih pojava. Veliki broj istraživanja potvrđuju njihovu sposobnost i fleksibilnost za sagledavanje varijabilnosti u bilo kojoj pojedinačnoj seriji prikupljenoj u određenom vremenskom periodu (Barionuevo, 1992; Box i dr., 2016; Stock i Watson, 1998; Maity i Chatterjee, 2012; Zhang, 2013; Wabomba i dr., 2016). Naglasak Box-Jenkins metodologije nije izgradnja jedne jednačine ili modela simultanih jednačina već analiza probabilističkih karakteristika ekonomske vremenske serije dozvoljavajući da podaci govore sami za sebe.

2.1 ARMA (p,q) modeli

Neka Y_t predstavlja stacionarnu vremensku seriju za period $t = 1, 2, \dots, T$. Općenito, ARMA(p,q) model se može predstaviti sljedećim izrazom:

$$\phi_p(L)Y_t = \theta_0 + \theta_q(L)\varepsilon_t \quad (1)$$

gdje su:

Y_t - ciljane varijabla u periodu t ,

$\theta_0, \phi_p, \theta_q$ - parametri modela koji trebaju biti ocjenjeni,

$\varepsilon_t : IID(0, \sigma^2)$ - slučajna greška modela u periodu t ,

p - red autoregresivne komponente,

q - red komponente pokretnih prosjeka,

$\phi_p(L), \theta_q(L)$ - polinomi operatora pomaka L :

$$\phi_p(L) = (1 - \phi_1 L - \dots - \phi_p L^p) \quad (2)$$

$$\theta_q(L) = (1 - \theta_1 L - \dots - \theta_q L^q) \quad (3)$$

2.2 ARIMA(p,d,q) modeli

Neka Y_t predstavlja nestacionarnu vremensku seriju za period $t = 1, 2, \dots, T$. Općenito, ARIMA(p,d,q) model se može predstaviti sljedećim izrazom:

$$\phi_p(L)(1-L)^d Y_t = \theta_0 + \theta_q(L)\varepsilon_t \quad (4)$$

gdje je:

d - red prostog diferenciranja.

2.3 Sezonski ARIMA(p,d,q) modeli

Neka Y_t predstavlja nestacionarnu sezonsku vremensku seriju za $t = 1, 2, \dots, T$. Općenito, multiplikativni sezonski ARIMA(p,d,q)(P,D,Q)_s model se može predstaviti sljedećim izrazom:

$$(1-L)^d (1-L^s)^D \phi_p(L) \Phi_P(L^s) Y_t = \theta_0 + \theta_q(L) \Theta_Q(L^s) \varepsilon_t \quad (5)$$

gdje su:

D - red sezonskog diferenciranja,

s - broj sezona godišnje (za mjesečne serije $s=12$, za kvartalne serije $s=4$),

$\Phi_P(L^s), \Theta_Q(L^s)$ - polinomi operatora pomaka L :

$$\Phi_p(L^s) = (1 - \Phi_1 L^s - \dots - \Phi_p L^{sp}) \quad (6)$$

$$\Theta_q(L^s) = (1 - \Theta_1 L^s - \dots - \Theta_q L^{sq}) \quad (7)$$

Sezonsko diferenciranje se primjenjuje ako serija ima sezonsku nestacionarnost. Potreba za sezonskim autoregresionim parametrima i sezonskim parametrima pokretnih prosjeka utvrđuje se ispitivanjem autokorelacija i parcijalnih autokorelacijska serije u pomacima koji su proizvod broja sezona po godini.

U razvijenim zemljama postoji obimna empirijska literatura o prognoziranju BDP korištenjem ARIMA(p, d, q) modela. Mnogobrojni autori su razmatrali univarijantne modele vremenskih serija (Çeliku i dr., 2010; Wei i dr., 2010; Maity i Chatterjee, 2012; Shahini i Haderi, 2013; Zakai, 2014; Wabomba i dr., 2016) kao i multivarijantne modele vremenskih serija (Baffigi i dr., 2004; Kuzin i dr., 2009; Çeliku i dr., 2010; Barhoumi i dr, 2011; Cobb i dr., 2011; Antipa i dr., 2012; Shahini i Haderi, 2013; Dritsaki, 2015). Nadalje, neki autori su razmatrali vremenske serije na godišnjem nivou (Wei i dr., 2010; Maity i Chatterjee, 2012; Zakai, 2014; Wabomba i dr., 2016) dok su drugi koristili vremenske serije na ispodgodišnjem nivou (Baffigi i dr., 2004; Nunes, 2005; Schumacher i Breitung, 2008; Çeliku i dr., 2010; Barhoumi i dr, 2011; Cobb i dr., 2011; Antipa i dr., 2012; Shahini i Haderi, 2013; Dritsaki, 2015). Između ostalog, izdvojeno je nekoliko istraživanja.

Wei i dr. (2010) su prognozirali BDP-a kineske pokrajine Šan-ksi na osnovu ARIMA modela. Koristeći podatke u periodu od 1952-2007. godine kreirali su ARIMA(1,2,1) model. Upoređujući stvarne i prognozirane vrijednosti u periodu 2002-2007. godine rezultati su pokazali da je greška između stvarne vrijednosti BDP-a i prognozirane vrijednost BDP-a unutar 5%. Maity i Chatterjee (2012) su koristeći ARIMA(1,2,2) model ispitivali mogućnosti prognoziranja stopa rasta BDP za Indiju u vremenskom periodu 1959-2011. godine. Rezultati njihovog istraživanja pokazali su da je navedeni model efikasan u prognozama BDP-a i stope rasta u Indiji. Zakai (2014) je istraživao prognoziranje BDP-a Pakistana koristeći godišnje podatke u periodu 1953-2012. godine. Najbolji ocjenjeni model je ARIMA(1,1,0) model na osnovu kojeg su urađene prognoze za period 2013-2025. godina. Dritsaki (2015) je kreirala model za prognoziranje realnih stopa BDP-a grčke ekonomije koristeći Box-Jenkins metodologiju za period 1980-2013. godine. Uz upotrebu ARIMA(1,1,1) modela prognozirane su vrijednosti realnih stopa BDP-a za 2015., 2016. i 2017. godinu. Wabomba i dr. (2016) su za period 1960-2012. godine istraživali mogućnosti korištenja ARIMA modela za modeliranje BDP-a Kenije. Kao najbolji model za prognoziranje izabran je ARIMA(2,2,2) model. Navedeni model se pokazao adekvatnim i relativno

efikasnim u modeliranju godišnjih stopa rasta BDP-a Kenije te su ga koristili u prognozama BDP Kenije u petogodišnjem periodu.

2.4 Podaci

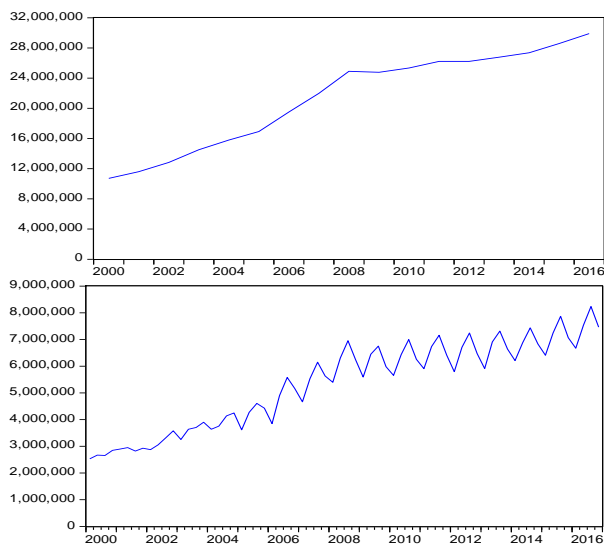
BHAS godišnje objavljuje Tematski bilten u kojem se publikuju osnovni agregati nacionalnih računa za Bosnu i Hercegovinu. BHAS u postupku obračuna BDP BiH koristi administrativne izvore podataka, rezultate zvaničnih mjesečnih i tromjesečnih statističkih istraživanja, kao i procjene neobuhvaćenih ekonomskih aktivnosti te imputirane rente. U skladu sa predmetom rada ciljna varijabla za prognoziranje je kvartalni BDP BiH¹. U radu su korišteni kvartalni podaci BDP BiH počevši od I kvartala 2000. godine do IV kvartala 2016. godine. Kvartalna vremenska serija BDP BiH je izgrađena dijelom preuzimanjem posljednjih objavljenih konačnih kvartalnih podataka Agencije za statistiku BiH (period 2006q1-2016q4) dok su podaci koji se odnose na period 2000q1-2005q4 kompilirani vremenskom dekompozicijom godišnjih podataka na kvartalne podatke. Za ovaj period podaci su preuzeti iz rada Čolaković i Hlivnjak (2007).

2.4.1 Preliminarna analiza

Ekonomске vremenske serije su pod utjecajem mnogih političkih, socijalnih i ekoloških faktora, kako unutrašnjih tako i vanjskih. Na slici 1. prikazano je kretanje godišnjeg i kvartalnog BDP-a BiH (u 000 KM) u tekućim cijenama za period 2000-2016. godina.

Slika 1. Linijski dijagrami godišnjeg BDP BiH (lijevo) i kvartalnog BDP BiH (desno)

¹ U radu je analiziran BDP BiH u tekućim cijenama prema proizvodnom pristupu.



Grafički prikaz otkriva da godišnja serija BDP BiH prati rastući trend u navedenom periodu. Također, grafički prikaz otkriva da kvartalna serija BDP BiH ima rastući trend, sezonalnost i porast varijanse u posmatranom periodu. Nadalje, i kod godišnje serije BDP BiH i kod kvartalne serije BDP BiH javljaju se određena odstupanja u obrascu ponašanja u periodu 2007-2009. godina što upućuje na prisustvo outliera ili strukturnog loma u datom periodu. Velikih outliera (Watson, 2003) odnosno observacija koje se razlikuju od medijane serije za više od $6 \cdot IQR$ serije nije bilo. Nakon grafičke detekcije outliera u radu je korišten TRAMO/SEATS automatski postupak otkrivanja i korekcije outliera. Navedena tehnika nije potvrdila prisustvo outliera u godišnjoj i kvartalnoj seriji BDP BiH.

2.4.2 Stacionarnost vremenskih serija

Na linijskom dijagramu kvartalne serije BDP BiH (slika 1.) može se primijetiti prisustvo rastućeg trenda, sezonskih oscilacija i porast varijanse tokom vremena što ukazuje da se radi o nestacionarnoj seriji. Prije ispitivanja stacionarnosti serije urađena je stabilizacija varijanse logaritmiranjem serije kvartalni BDP BiH (u daljem tekstu: logKBDP). Rezultati testova jediničnog korijena za seriju logKBDP su dati u tabeli 1.

Tabela 1. Rezultati testova jediničnog korijena za seriju logKBDP

Test	logKBDP		
	Bez C,T	C	C,T
ADF	$t=2,16$ (4) (p -)	$t=-1,88$ (4) (p -vrijednost=0,3393)	$t=-1,05$ (4) (p -)

	<i>vrijednost=0,9922)</i>		<i>vrijednost=0,9282)</i>
PP	$t=2,80$ (12) (<i>p-vrijednost</i> $=0,9986$)	$t=-1,82$ (13) (<i>p-vrijednost=0,33693</i>)	$t=-4,25$ (16) (<i>p-vrijednost</i> $=0,0065$)
DF- GLS (ERS)	///	$t=0,34$ (4)	$t=-0,89$ (4)

***Pomaci u testovima jediničnog korijena su određeni automatski pomoću SIC kriterija (ADF test i DF-GLS test) odnosno pomoću Newey-West metode (PP test). Broj u zagradama iza test statistika je broj pomaka.

Rezultati sprovedenih testova potvrđuju da serija logKBDP nije stacionarna i da se uz rizik greške od 5% ne može odbaciti nulta hipoteza o postojanju jediničnog korijena. Također, i HEGY sezonski test jediničnog korijena je potvrdio da je prisutna sezonska nestacionarnost kvartalnog BDP BiH. Stoga, u cilju postizanja stacionarnosti urađena je transformacija serije logKBDP. Nivo obične i sezonske integriranosti utvrđen je na osnovu analize ocjene varijanse, ocjene obične i parcijalne autokorelacijske funkcije te primjene testova jediničnog korijena. Vrijednosti obične integrisanosti (d) i sezonske integrisanosti (D) najčešće u praksi nisu veće od reda 1. Za utvrđivanje preliminarne kombinacije njihove vrijednosti koristi se provjera ocjene varijanse sljedećih serija: Y_t , $(1-L)Y_t$, $(1-L^s)Y_t$, $(1-L)(1-L^s)Y_t$. Serija koja ima najmanju ocjenu varijanse predstavlja optimalnu kombinaciju vrijednosti d i D . U tabeli 2. date su vrijednosti d i D na osnovu ocjene varijanse.

Tabela 2. Vrijednosti d i D na osnovu najmanje ocjene varijanse²

Serija	Y_t	$(1-L)Y_t$	$(1-L^s)Y_t$	$(1-L)(1-L^s)Y_t$
	(logKBDP)	(prva diferenc logKBDP)	(sezonska diferenc logKBDP)	(prva i sezonska diferenc logKBDP)
Ocjena varijanse	0,087536	0,010454	0,003855	0,002304
Vrijednosti d i D	$d=D=0$	$d=1, D=0$	$d=0, D=1$	$d=1, D=1$

Najmanju ocjenu varijanse ima serija $(1-L)(1-L^s)Y_t$ (prva i sezonska diferenc logKBDP). Međutim, budući da je mala razlika u odnosu na ocjenu varijanse serije $(1-L^s)Y_t$ (sezonska diferenc log KBDP) u daljoj analizi su

² Ocjene varijanse su urađene za uzorak iste veličine svih serija.

ispitane sljedeće kombinacije d i D : $d=0, D=1$ i $d=1, D=1$. Rezultati testova jediničnog korijena dati u tabeli 3. potvrđuju da prva diferencija serije logKBDP prati stacionarni obrazac i da se uz rizik greške od 5% odbacuje nulta hipoteza o postojanju jediničnog korijena.

Tabela 3. Rezultati testova jediničnog korijena za diferenciranu seriju logKBDP

Test	Diferencirani logKBDP		
	Bez C,T	C	C,T
ADF	$t=-2,26$ (3) (p -vrijednost =0,0243)	$t=-3,24$ (3) (p -vrijednost =0,0222)	$t=-3,63$ (3) (p -vrijednost =0,0348)
PP	$t=-8,90$ (14) (p - vrijednost=0,0000)	$t=-11,66$ (12) (p - vrijednost=0,0000)	$t=-13,75$ (12) (p - vrijednost=0,0000)
DF-GLS (ERS)	///	$t=-2,17$ (3)	$t=-2,58$ (3)

***Pomaci u testovima jediničnog korijena su određeni automatski pomoću SIC kriterija (ADF test i DF-GLS test) odnosno pomoću Newey-West metode (PP test). Broj u zagradama iza test statistika predstavlja broj pomaka.

Korištenjem sezonske diference dobija se serija iz koje je izdvojena nestacionarna sezonska komponenta. Rezultati testova jediničnog korijena dati u tabeli 4. potvrđuju da sezonski diferencirana serija logKBDP prati stacionarni obrazac i da se uz rizik greške od 5% odbacuje nulta hipoteza o postojanju jediničnog korijena.

Tabela 4. Rezultati testova jediničnog korijena za sezonski diferenciranu seriju logKBDP

Test	Sezonski diferencirani logKBDP		
	Bez C,T	C	C,T
ADF	$t=-2,36$ (0) (p -vrijednost=0,0186)	$t=-3,36$ (0) (p -vrijednost=0,0162)	$t=-3,77$ (0) (p -vrijednost=0,0246)
PP	$t=-2,28$ (3) (p -vrijednost=0,0231)	$t=-3,40$ (4) (p -vrijednost=0,0147)	$t=-3,90$ (3) (p -vrijednost=0,0176)
DF-GLS (ERS)	///	$t=-2,65$ (0)	$t=-3,71$ (0)

***Pomaci u testovima jediničnog korijena su određeni automatski pomoću SIC kriterija (ADF test i DF-GLS test) odnosno pomoću Newey-West metode (PP test). Broj u zagradama iza test statistika predstavlja broj pomaka.

Nadalje, rezultati testova jediničnog korijena u tabeli 5. potvrđuju da obično i sezonski diferencirana serija logKBDP prati stacionarni obrazac i da se uz rizik greške od 5% odbacuje nulta hipoteza o postojanju jediničnog korijena.

Tabela 5. Rezultati testova jediničnog korijena za sezonski i obično diferenciranu seriju logKBDP

Test	Sezonski i obično diferencirani logKBDP		
	Bez C,T	C	C,T

ADF	$t=-9,23$ (0) (p -vrijednost=0,0000)	$t=-9,16$ (0) (p -vrijednost=0,0000)	$t=-9,09$ (0) (p -vrijednost=0,0000)
PP	$t=-9,42$ (2) (p -vrijednost=0,0000)	$t=-9,34$ (2) (p -vrijednost=0,0000)	$t=-9,26$ (2) (p -vrijednost=0,0000)
DF-GLS (ERS)	///	$t=-7,77$ (0)	$t=-8,31$ (0)

Pomaci u testovima jediničnog korijena su određeni automatski pomoću SIC kriterija (ADF test i DF-GLS test) odnosno pomoću Newey-West metode (PP test). Broj u zagradama iza test statistika predstavlja broj pomaka.

2.5 Rezultati i diskusija

Nestacionarnost serije u varijansi uklonjena je logaritmiranjem serije, nestacionarnost u sredini običnim diferenciranjem (prvom diferencom) dok je sezonska nestacionarnost uklonjena sezonskim diferenciranjem (sezonskom diferencom). Ranije je na osnovu testova jediničnog korijena utvrđeno da su i prva diferencna, i sezonska diferencna kao i obična i sezonska diferencna logKBDP BiH stacionarni procesi. Međutim, imajući u vidu da na korelogramima SACF i SPACF prve i/ili sezonske diference serije logKBDP postoje statistički značajni koeficijenti može se zaključiti da reziduali nisu slučajni. To znači da postoje informacije dostupne u rezidualima koje treba izdvojiti sa AR i MA komponentama te se smatra adekvatnom izgradnja integrisanog ARMA modela. U nastavku je sprovedena Box-Jenkins metodologija s ciljem određivanja adekvatnog ARIMA modela za prognoziranje kvartalnog BDP BiH. Na osnovu korelograma SACF i SPACF transformisanih podataka razmatrano je više ARIMA modela. Kao početne ARIMA modele na osnovu statističke značajnosti parametara modela predloženo je 9 modela. Međutim, preliminarnom ocjenom parametara početnih ARIMA modela, na osnovu Akaike informacijskog kriterija, odabrana su tri ARIMA modela čije performanse su u nastavku detaljno analizirane:

- 1) ARIMA(p,d,q)=ARIMA(4,1,0) model
- 2) ARIMA(p,d,q)(P,D,Q)_s=ARIMA(0,0,0)(1,1,0)₄ model
- 3) ARIMA(p,d,q)(P,D,Q)_s=ARIMA(0,1,1)(0,1,0)₄ model

Zbirni rezultati tri analizirana ARIMA modela su dati u tabeli 6.

Tabela 6. Zbirni rezultati tri ARIMA modela

Koeficijent	Model		
	ARIMA3	ARIMA6	ARIMA9
C	///	0,061218*** (0,020011)	///
ϕ_4	0,906468*** (0,063055)	///	///

θ_1	///	///	-0,255870** (0,131237)
ϕ	///	0,698282*** (0,096897)	///
SSR	0,119714	0,105152	0,119488
Standardna greška (S.E.)	0,047084	0,044542	0,047040
AIC/BIC	-3,255745/-3,219248	-3,349075/-3,276081	-3,257632/-3,221135
Prilagođeni R^2	0,7879	0,4854	0,0394
Ljung-Box statistika reziduala (p-vrijednost)	Q(4)=8,8261 (p =0,066) Q(8)=11,281 (p =0,186) Q(12)=12,566 (p =0,401)	Q(4)=5,5485 (p =0,136) Q(8)=6,7199 (p =0,459) Q(12)=7,1349 (p =0,788)	Q(4)=7,8061 (p =0,050) Q(8)=9,9638 (p =0,191) Q(12)=10,362 (p =0,498)

* , ** , *** koeficijent značajan na nivou od 10%, 5%, 1%, respektivno. Standardne greške su u zagradama.

ARIMA3: ARIMA(4,1,0) model

Korištenjem LS metode ocjenjeni su parametri ARIMA(4,1,0) modela bazirani na prvim diferencama logaritmiranih podataka. Rezultati pokazuju da je koeficijent uz AR komponentu statistički značajan na nivou od 95% pouzdanosti. Konstanta i AR(1), AR(2) i AR(3) komponente nisu statistički značajni na nivou od 95% pouzdanosti te su isključeni iz modela. Nakon ocjene modela provjerena je reprezentativnost modela. Jarque-Bera test pokazuje da reziduali slijede normalnu distribuciju ($JB=5,1314$; p -vrijednost=0,0769). Na slici 2. (lijevo) prikazani su korelogrami reziduala ARIMA (4,1,0) modela. Na korelogramima SACF i SPACF reziduala sve uzoračke autokorelacije za prva 24 pomaka padaju unutar 95% granice pouzdanosti, što ukazuje da su reziduali slučajni. Nadalje, Ljung-Box test je potvrdio da su autokorelacije reziduala jednake nula za prva 24 pomaka ($Q=25,634$; p -vrijednost=0,372) i da ARIMA(4,1,0) model pruža adekvatan opis podataka. Također, i Breusch-Godfrey LM test je potvrdio da ne postoji autokorelacija višeg reda među rezidualima ($F=2,2407$; p -vrijednost = 0,1166). Rezultati Breusch-Pagan-Godfrey testa potvrđuju da ne postoji heteroskedastičnost reziduala ($F=0,0193$; p -vrijednost=0,8900). Imajući u vidu da nema šiljaka izvan značajne zone na korelogramima SACF i SPACF reziduala može se zaključiti da reziduali slijede proces bijeli šum (*engl. white noise process*) bez dodatnih informacija u njima.

ARIMA6: ARIMA(0,0,0)(1,1,0)₄ model

Ocjene parametara $ARIMA(0,0,0)(1,1,0)_4$ modela su bazirane na sezonski diferenciranim logaritmiranim podacima. Rezultati u tabeli 6. pokazuju da su slobodan član i koeficijent uz sezonsku AR komponentu statistički značajni na nivou od 95% pouzdanosti. Jarque-Bera test potvrđuje da reziduali slijede normalnu distribuciju ($JB=5,9765$; p -vrijednost= $0,0504$). Na slici 2. (sredina) prikazani su korelogrami reziduala $ARIMA(0,0,0)(1,1,0)_4$ modela. Na korelogramima SACF i SPACF reziduala u prvih 24 pomaka sve uzoračke autokorelacije padaju unutar 95% granice pouzdanosti ukazujući da su reziduali slučajni. Ljung-Box test potvrđuje da su za prva 24 pomaka autokorelacije među rezidualima jednake nula ($Q=17,471$; p -vrijednost= $0,786$), što potvrđuje da su reziduali slučajni te da $ARIMA(0,0,0)(1,1,0)_4$ model pruža adekvatan opis podataka. Također, i Breusch-Godfrey LM test je potvrdio da ne postoji autokorelacija višeg reda među rezidualima ($F=0,1059$; p -vrijednost= $0,8997$). Rezultati Breusch-Pagan-Godfrey testa potvrđuju da ne postoji heteroskedastičnost reziduala ($F=0,0039$; p -vrijednost= $0,9508$). Na osnovu prethodno navedenog može se zaključiti da reziduali slijede proces bijeli šum te da u njima ne postoje dodatne informacije koje mogu biti ekstrahovane.

ARIMA9: $ARIMA(0,1,1)(0,1,0)_4$ model

Ocjene parametara za $ARIMA(0,1,1)(0,1,0)_4$ modela su bazirane na obično i sezonski diferenciranim logaritmiranim podacima. Slobodan član nije bio statistički značajan na nivou od 95% pouzdanosti te je isključen iz modela. Jarque-Bera test potvrđuje da reziduali slijede normalnu distribuciju ($JB=3,3255$; p -vrijednost= $0,1896$). Korelogrami SACF i SPACF reziduala $ARIMA(0,1,1)(0,1,0)_4$ modela su dati na slici 2 (desno). Na korelogramima SACF i SPACF reziduala sve uzoračke autokorelacije padaju unutar 95% granice pouzdanosti za prva 24 pomaka i ukazuju da su reziduali slučajni. Ljung-Box test na rezidualne iz ocjenjenog $ARIMA(0,1,1)(0,1,0)_4$ modela potvrđuje da je autokorelacija među rezidualima jednaka nula u prvih 24 pomaka ($Q=23,207$; p -vrijednost= $0,449$), što ukazuje da $ARIMA(0,1,1)(0,1,0)_4$ model pruža adekvatan opis podataka. Također, i Breusch-Godfrey LM test potvrđuje da ne postoji autokorelacija višeg reda među rezidualima ($F=0,9371$; p -vrijednost= $0,3983$). Rezultati Breusch-Pagan-Godfrey testa potvrđuju da ne postoji heteroskedastičnost reziduala ($F=0,0002$; p -vrijednost= $0,9878$). Također, i kod ovog modela može se zaključiti da reziduali slijede proces bijeli šum bez dodatnih informacija u njima.

Na kraju je ispitano koji od tri alternativna ARIMA modela je najbolji za prognoziranje kvartalnog BDP BiH. Na osnovu podataka u tabeli 6. može se

zaključiti da su sa aspekta parsimonije model ARIMA3 i model ARIMA9 ekonomičniji od modela ARIMA6 budući da imaju po jedan statistički značajan koeficijent. Na osnovu statističke značajnosti ocijenjenih koeficijenata i na osnovu prilagođenog koeficijenta determinacije prednost se daje modelu ARIMA3. Međutim, na osnovu vrijednosti informacijskih kriterija i standardne greške regresije dobija se suprotan rezultat, te kao najbolji model bira se model ARIMA6. Analizirajući Q statistike na korelogramima reziduala za pomake 4, 8 i 12 može se vidjeti da su kod svih modela reziduali nekorelisani na nivou značajnosti od 5%. Međutim, empirijske p -vrijednosti Q statistike na svim pomacima su najveće kod modela ARIMA6. Stoga, i na osnovu Q statistike prednost se daje modelu ARIMA6.

Slika 2. Korelogrami reziduala ARIMA(4,1,0) model (lijevo), ARIMA(0,0,0)(1,1,0)₄ (sredina) i ARIMA(0,1,1)(0,1,0)₄ model (desno)

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob	Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.156	-0.156	1.4095	0.235			1 -0.010	-0.010	0.0063	
		2 -0.206	-0.238	3.9148	0.141			2 -0.038	-0.038	0.0906	0.763
		3 0.159	0.090	5.4403	0.142			3 0.223	0.223	3.0918	0.213
		4 -0.235	-0.261	8.8261	0.066			4 -0.200	-0.209	5.5485	0.136
		5 -0.034	-0.067	8.9004	0.113			5 0.021	0.050	5.5750	0.233
		6 -0.109	-0.293	9.6564	0.140			6 -0.015	-0.093	5.5893	0.348
		7 0.036	-0.002	9.7413	0.204			7 0.057	0.175	5.7979	0.446
		8 0.152	-0.004	11.281	0.185			8 0.118	0.043	6.7109	0.459
		9 -0.057	-0.008	11.506	0.243			9 -0.038	0.010	6.8161	0.557
		10 -0.094	-0.214	12.127	0.277			10 -0.016	-0.095	6.8345	0.654
		11 0.056	-0.040	12.351	0.338			11 0.064	0.090	7.1242	0.714
		12 0.054	-0.000	12.566	0.401			12 0.012	0.038	7.1349	0.788
		13 -0.147	-0.125	14.172	0.362			13 -0.117	-0.103	8.1485	0.773
		14 -0.043	-0.164	14.317	0.426			14 0.014	-0.030	8.1544	0.833
		15 0.114	-0.050	15.338	0.427			15 0.123	0.124	9.3528	0.808
		16 0.139	0.140	16.902	0.392			16 0.120	0.202	10.501	0.787
		17 -0.032	0.012	16.986	0.455			17 -0.024	-0.079	10.548	0.837
		18 -0.067	-0.052	17.363	0.498			18 -0.014	-0.077	10.565	0.878
		19 0.068	-0.039	17.765	0.538			19 0.060	0.006	10.875	0.900
		20 -0.212	-0.233	21.772	0.353			20 -0.236	-0.148	15.852	0.667
		21 0.108	0.192	22.850	0.352			21 0.080	0.168	16.446	0.689
		22 0.023	-0.042	22.900	0.407			22 0.034	-0.084	16.558	0.738
		23 -0.043	0.028	23.082	0.456			23 -0.086	-0.020	17.284	0.748
		24 0.159	-0.080	25.634	0.372			24 0.043	-0.129	17.471	0.786

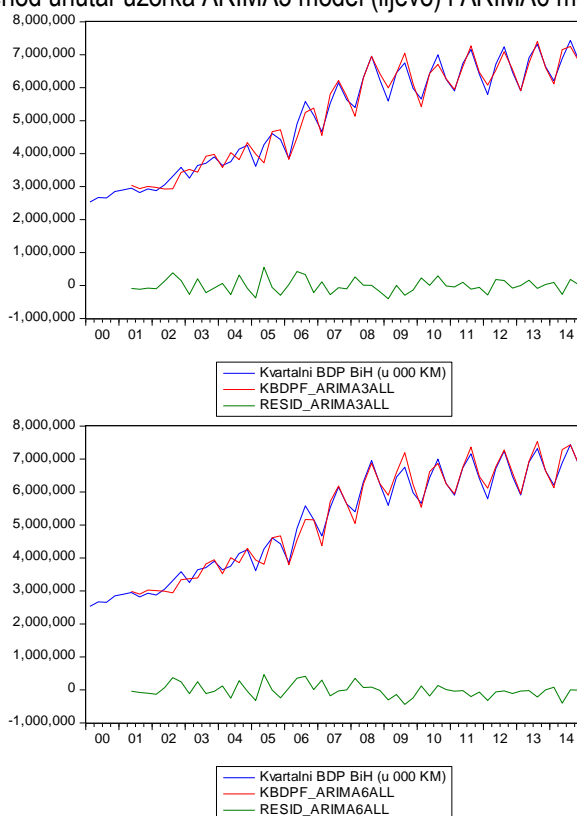
Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.045	0.045	0.1171	
		2 -0.137	-0.139	1.2254	0.268
		3 0.059	0.073	1.4323	0.489
		4 -0.322	-0.358	7.8051	0.050
		5 -0.130	-0.072	8.8589	0.065
		6 -0.072	-0.206	9.1908	0.102
		7 0.042	0.084	9.3082	0.157
		8 0.099	-0.079	9.9638	0.191
		9 -0.046	-0.085	10.111	0.257
		10 -0.042	-0.174	10.234	0.332
		11 0.036	0.029	10.327	0.412
		12 -0.022	-0.064	10.362	0.498
		13 -0.156	-0.204	12.188	0.431
		14 0.003	-0.108	12.189	0.512
		15 0.147	0.062	13.893	0.458
		16 0.132	0.140	15.301	0.430
		17 -0.010	-0.119	15.309	0.502
		18 -0.023	-0.078	15.352	0.570
		19 0.004	-0.030	15.354	0.638
		20 -0.247	-0.162	20.810	0.347
		21 0.078	0.175	21.364	0.376
		22 0.097	-0.077	22.250	0.385
		23 -0.005	0.035	22.283	0.444
		24 0.097	-0.079	23.207	0.449

Stoga, konačan izbor ARIMA modela za prognoziranje kvartalnog BDP BiH je izvršen na osnovu komparativne analize prediktivne efikasnosti navedenih modela za dva perioda:

- 1) Period unutar uzorka (*engl. In-sample period*): 2000q1-2014q4
- 2) Period izvan uzorka (*engl. Out-of-sample period*): 2015q1-2016q4

U nastavku je urađena komparativna analiza modela ARIMA3 i modela ARIMA6 u periodu unutar uzorka. Na slici 3. dat je grafički prikaz kvartalnog BDP BiH, prognoziranih vrijednosti kvartalnog BDP BiH na osnovu modela ARIMA3 (lijevo) i modela ARIMA 6 (desno) te greške prognoze za period unutar uzorka 2000q1-2014q4.

Slika 3. Kvartalni BDP BiH, prognozirane vrijednosti kvartalnog BDP BiH i greške prognoze za period unutar uzorka ARIMA3 model (lijevo) i ARIMA6 model (desno)



Grafici izgledaju veoma slično i prognozirane vrijednosti relativno tačno oslikavaju kretanje kvartalnog BDP BiH. ARIMA3 model ima manju prosječnu

vrijednost grešaka prognoze ali istovremeno i veću standardnu devijaciju grešaka prognoza. Na osnovu Jarque-Bera testa, uz rizik greške od 5%, ne može se odbaciti hipoteza da su greške prognoza modela normalno distribuirane. Prognozičke greške i u modelu ARIMA3 i u modelu ARIMA6 slijede proces bijeli šum. Ljung-Box test potvrđuje da je u prva 24 pomaka autokorelacija među prognostičkim greškama modela ARIMA3 ($Q=27,614$; p -vrijednost=0,277) i modela ARIMA6 jednaka nula ($Q=19,377$; p -vrijednost=0,732) što ukazuje da su prognozičke greške slučajne. Regresijom prognostičkih grešaka pojedinačnog modela na konstantu i AR komponentu provjerena je statistička značajnost grešaka prognoze. Rezultati regresijske analize prognozičke greške su dati u tabelama 7. i 8. Na osnovu t -statistika, uz rizik greške od 5%, može se zaključiti da ne postoje statističke značajne greške u prognozama modela ARIMA3 i u prognozama modela ARIMA6. Drugim riječima, ne postoji sistemska greška u prognozama navedenih modela.

Tabela 7. Rezultati regresije prognozičke greške modela ARIMA3 na slobodan član i AR komponentu za period unutar uzorka

<i>Varijabla</i>	<i>Koeficijent</i>	<i>Standardna greška</i>	<i>t-stat</i>	<i>p-vrijednost</i>
C	1.731,290	24.077,45	0,07	0,9430
AR(4)	-0,237357	0,141368	-1,68	0,0995

Tabela 8. Rezultati regresije prognozičke greške modela ARIMA6 na slobodan član i AR komponentu za period unutar uzorka

<i>Varijabla</i>	<i>Koeficijent</i>	<i>Standardna greška</i>	<i>t-stat</i>	<i>p-vrijednost</i>
C	-13.590,35	29.576,84	-0,46	0,6478
AR(1)	0,051014	0,138479	0,37	0,7141

Nepistrasnost i efikasnost prognoza testirana je korištenjem Mincer-Zarnowitz regresije. U tabelama 9. i 10. su dati su rezultati Mincer-Zarnowitz regresije za modele ARIMA3 i ARIMA6.

Tabela 9. Rezultati Mincer-Zarnowitz regresije kvartalnog BDP na prognozirane vrijednosti za period unutar uzorka (ARIMA3 model)

<i>Varijabla</i>	<i>Koeficijent</i>	<i>Standardna greška</i>	<i>t-stat</i>	<i>p-vrijednost</i>
C	116.849,5	104.523,4	1,117927	0,2692
KBDP_ARIMA3	0,978843	0,018649	52,48727	0,0000
AR(4)	-0,221192	0,144288	-1,532994	0,1318

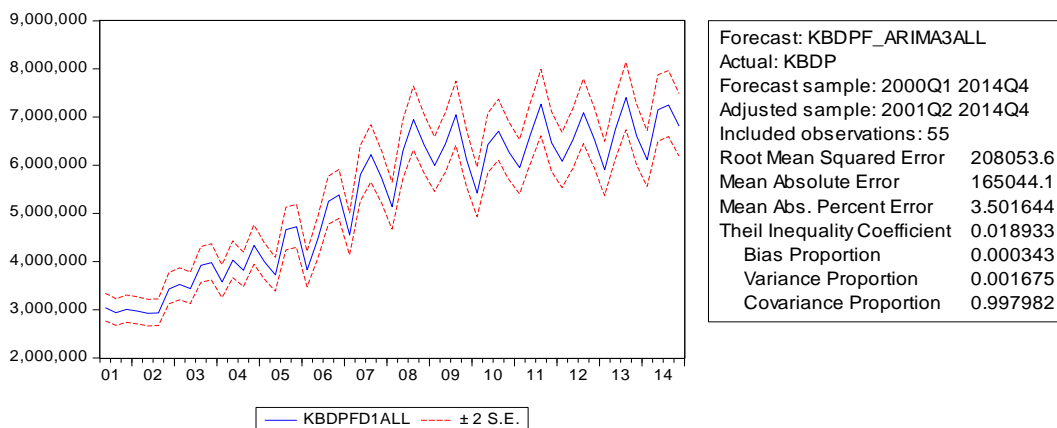
Rezultati Wald skupnog testa ($F=1,4750$; p -vrijednost= $0,2332$) potvrđuju da su prognoze unutar uzorka dobijene na osnovu modela ARIMA3 sa 95% pouzdanosti nepristrasne i efikasne.

Tabela 10. Rezultati Mincer-Zarnowitz regresije kvartalnog BDP na prognozirane vrijednosti za period unutar uzorka (ARIMA6 model)

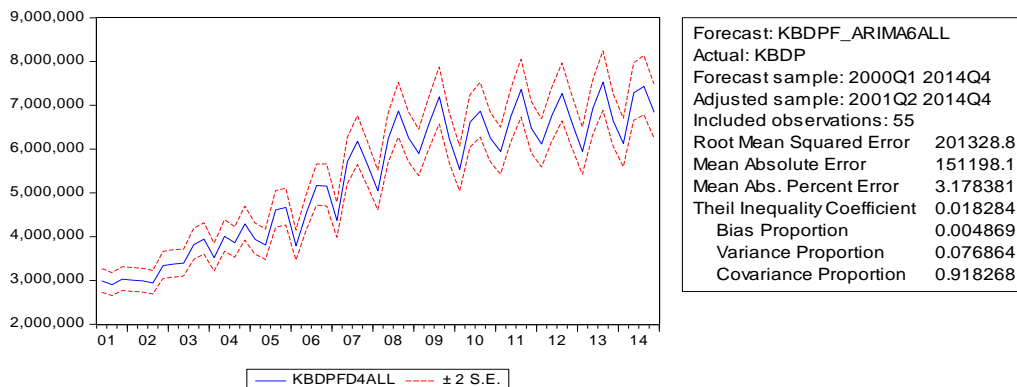
Varijabla	Koeficijent	Standardna greška	t-stat	p-vrijednost
C	250.555,5	102.875,3	2,435526	0,0184
KBDP_ARIMA6	0,950742	0,018516	51,34766	0,0000
AR(1)	-0,000304	0,141211	-	0,9983

Slična je situacija sa modelom ARIMA6. Wald skupni test ($F=2,5028$; p -vrijednost= $0,0696$) potvrđuje da su prognoze unutar uzorka dobijene na osnovu modela ARIMA6 sa 95% pouzdanosti nepristrasne i efikasne. U nastavku rada komparirana je tačnost prognoza dva navedena modela. Na sljedećim graficima prikazane su prognozirane vrijednosti serije kvartalni BDP BiH sa granicama intervala koji iznosi ± 2 standardne greške.

Slika 4. Prognozirane vrijednosti serije kvartalni BDP BiH za period unutar uzorka (ARIMA3 model)



Slika 5. Prognozirane vrijednosti serije kvartalni BDP BiH za period unutar uzorka (ARIMA6 model)



Model ARIMA6 ima bolje sve pojedinačne mjere ocjene tačnosti prognoza, osim proporcije pristranosti, proporcije varijanse i proporcije kovarijanse što ukazuje da su varijacije prognoza veće od varijacija aktuelne serije. Korijen prosječne kvadratne greške prognoze u modelu ARIMA3 iznosi 208.053,6 dok korijen prosječne kvadratne greške prognoze u modelu ARIMA6 iznosi 201.328,8. Diferencijal kvadratne funkcije gubitaka ima prosječnu vrijednost $2,75E+09$ sa standardnom devijacijom od $3,79E+10$. Diferencijal kvadrata prognostičkih grešaka slijedi proces bijeli šum. Ljung-Box test potvrđuje da su u prva 24 pomaka autokorelacije diferencijala kvadrata prognostičkih grešaka jednake nula ($Q=28,833$; p -vrijednost=0,471). Na osnovu Jarque-Bera testa, uz rizik greške od 5%, ne može se odbaciti nulta hipoteza da je diferencijal kvadrata prognostičkih grešaka normalno distribuiran ($JB=4,2463$; p -vrijednost=0,1197).

Komparacija tačnosti prognoza dva navedena modela testirana je Diebold-Mariano testom. Na osnovu datog testa može se zaključiti da se prosječna vrijednost diferencijala kvadrata prognostičkih grešaka ($\bar{d} = 2,75E+09$) statistički značajno ne razlikuje od nula ($t=0,54$; p -vrijednost=0,5927). Stoga, zaključuje se da ne postoji statistički značajna razlika u tačnosti prognoza korištenjem dva navedena modela. Međutim, ipak efikasnije prognoze daje ARIMA6 jer ima manju prosječnu prognostičku grešku unutar uzorka.

U nastavku je ispitana opravdanost kombinacije dvije razmatrane prognoze korištenjem Granger-Ramanathan regresije. Koeficijent linearne korelacije prognoza iznosi $r = 0,9980$, što znači da postoji pozitivna i skoro perfektna korelacija između njih. U tabeli 11. prikazani su rezultati ocjene regresije bezuslovne kombinacije prognoza modela ARIMA3 i modela ARIMA6 na kvartalni BDP BiH.

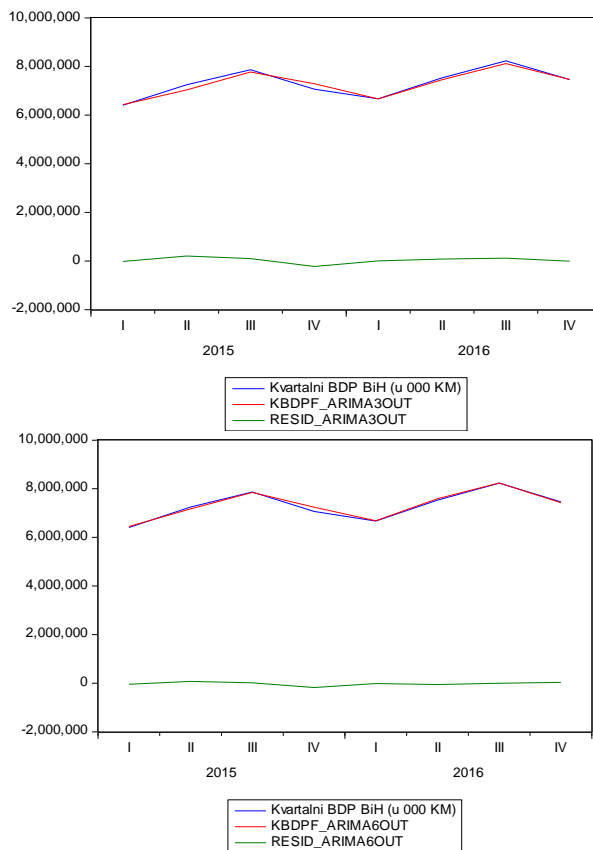
Tabela 11. Rezultati regresije bezuslovne kombinacije prognoza modela ARIMA3 i prognoza modela ARIMA 6

<i>Varijabla</i>	<i>Koeficijent</i>	<i>Standardna greška</i>	<i>t-stat</i>	<i>p-vrijednost</i>
C	223.028,1	109.800,8	2,03	0,0474
KBDP_ARIMA3ALL	0,060409	0,287429	0,21	0,8344
KBDP_ARIMA6ALL	0,895143	0,278193	3,22	0,0022

Rezultati ukazuju da su slobodan član ($t=2,03$; p -vrijednost=0,0474) i parametar uz prognoze modela ARIMA6 ($t=3,22$; p -vrijednost=0,0022) uz rizik greške od 5% statistički signifikantno različiti od nula. Parametar uz prognoze modela ARIMA3 uz isti rizik nije statistički signifikantno različit od nula ($t=0,21$; p -vrijednost=0,8344). Na osnovu rezultata Wald skupnog testa ($F=3,4432$; p -vrijednost=0,0394), uz rizik greške od 5%, odbacuje se nulta hipoteza: $(\beta_1, \beta_2) = (0, 1)$ i zaključuje da nijedan model ne obuhvata drugi model te da oba modela sadrže korisne informacije o kvartalnom BDP BiH.

Pored komparacije modela ARIMA3 i modela ARIMA6 unutar uzorka urađena je i njihova komparacija za period izvan uzorka. Na slici 6. prikazani su kvartalni BDP BiH, prognozirane vrijednosti kvartalnog BDP BiH na osnovu modela ARIMA3 (lijevo) i ARIMA6 (desno) te greške prognoze navedenih modela za period izvan uzorka.

Slika 6. Kvartalni BDP BiH, prognozirane vrijednosti kvartalnog BDP BiH i greške prognoze u periodu izvan uzorka ARIMA3 model (lijevo) i ARIMA6 model (desno)

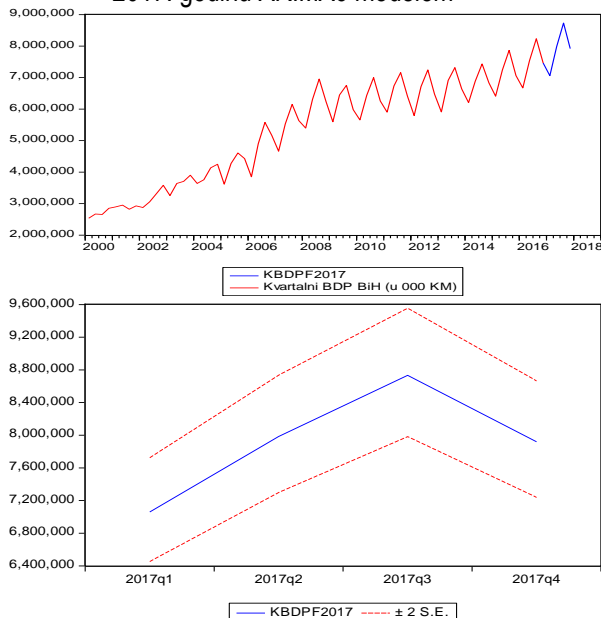


Evidentno je da su prosječne vrijednosti grešaka prognoze mnogo manje nego u periodu unutar uzorka. Također, i standardne devijacije grešaka prognoza su mnogo manje nego u periodu unutar uzorka. Prosječna vrijednost grešaka prognoza modela ARIMA3 je pozitivna a prosječna vrijednost grešaka prognoza modela ARIMA6 je negativna. Po apsolutnoj vrijednosti prosječna vrijednost grešaka prognoza je manja kod ARIMA6 modela. Na osnovu Jarque-Bera testa, uz rizik greške od 5%, ne može se odbaciti hipoteza da su greške prognoza oba modela normalno distribuirane. Prognostičke greške modela ARIMA3 i modela ARIMA6 slijede proces bijeli šum. Ljung-Box test potvrđuje da su autokorelacije među prognostičkim greškama jednake nula i u modelu ARIMA3 ($Q=6,1097$; p -vrijednost=0,527) i u modelu ARIMA6 ($Q=3,8761$; p -vrijednost=0,794). Regresijom prognostičkih grešaka modela na konstantu i ARMA(p,q) komponentu testirana je statistička značajnost grešaka prognoze. Na osnovu t -statistika i odgovarajućih p -vrijednosti može se zaključiti da ne postoje statistički značajne greške u prognozama analiziranih modela. Nepristrasnost i efikasnost prognoza testirana je korištenjem Mincer-Zarnowitz regresije i skupnog Wald testa. Rezultati Wald skupnog testa ($F=0,2172$; p -vrijednost=0,8806) potvrđuju da

su prognoze izvan uzorka dobijene na osnovu modela ARIMA3 sa 95% pouzdanosti nepristrasne i efikasne. Slična je situacija i sa modelom ARIMA6. Wald skupni test ($F=0,2541$; p -vrijednost= $0,8556$) potvrđuje da su prognoze unutar uzorka dobijene na osnovu modela ARIMA6 sa 95% pouzdanosti nepristrasne i efikasne.

Konačno, na osnovu prethodno izloženog zaključuje se da je ARIMA6 najreprezentativniji i najefikasniji ARIMA model u prognozama kvartalnog BDP BiH. Stoga, za prognoziranje kvartalnog BDP-a BiH za 2017. godinu korišten je ARIMA6 model. Koristeći ARIMA6 izračunato je da će u I kvartalu 2017. godine BDP BiH iznositi 7.059.996.220 KM. Na osnovu ovog modela u prvom kvartalu 2017. godine predviđa se rast BDP-a od 5,83% u odnosu na prethodni kvartal, a što je za 3,33 postotna poena veće od prosječne stope rasta u I kvartalu za posljednjih 5 godina.

Slika 7. Grafički prikaz prognoziranih vrijednosti kvartalnog BDP BiH (u 000 KM) za 2017. godinu ARIMA6 modelom



U sljedećoj tabeli dat je prikaz prognoziranih vrijednosti kvartalnog BDP BiH za 2017. godinu:

Tabela 12. Tabelarni prikaz prognoziranih vrijednosti KBDFP BiH (u 000 KM) za 2017. godinu ARIMA6 modelom

<i>Kvartali</i>	<i>Donja granica</i>	<i>Prognozirana vrijednost</i>	<i>Gornja granica</i>	<i>Prognozirana vrijednost</i>
-----------------	----------------------	--------------------------------	-----------------------	--------------------------------

	<i>intervala</i>		<i>intervala</i>	<i>(BHAS)</i>
2017q1	6.450.000,00	7.059.996,22	7.720.000,00	7.074.334,00
2017q2	7.300.000,00	7.984.389,63	8.740.000,00	7.891.752,00
2017q3	7.980.000,00	8.733.611,77	9.560.000,00	8.706.847,00
2017q4	7.240.000,00	7.919.705,24	8.660.000,00	<i>n.a.</i>

***Donja i gornja granica intervala su određene uz nivo pouzdanosti od 95%.

Nadalje, poređenje prognoza prethodno prezentiranog ARIMA6 modela sa prognozama benchmark modela „slobodnog hoda“ je dato u tabeli 13. Rezultati su dati kao omjer prognostičke greške analiziranih modela i prognostičke greške benchmark modela. Vrijednosti manje od 1 ukazuju da posmatrani model ima manju prognostičku grešku u odnosu na benchmark model³. Na osnovu rezultata u tabeli 13. evidentno je da prognoze modela, i unutar uzorka i quasi periodu izvan uzorka, imaju relativno manje prognostičke greške u odnosu na naive benchmark model „slobodnog hoda“.

Tabela 13. Odnos apsolutnih i relativnih mjera grešaka prognoza ARIMA6 modela u odnosu na naive benchmark model

Model	ARIMA6 model	
	Unutar uzorka	Quasi period izvan uzorka⁴
<i>Mjera tačnosti</i>		
<i>RMSE</i>	0,57	0,79
<i>MAE</i>	0,51	0,58
<i>MAPE</i>	0,51	0,58
<i>TI</i>	0,57	0,80
<i>Proporcija pristrasnosti</i>	1,51	0,30
<i>Proporcija varijanse</i>	0,61	0,49
<i>Proporcija kovarijanse</i>	1,24	1,63

U tabeli 14. dati su rezultati poređenja prognoza ARIMA6 modela i naive benchmark modela sa prvim prognozama objavljenim od strane BHAS. Rezultati su dati kao omjer prognostičke greške analiziranih modela i prognostičke greške BHAS prognoza.

Tabela 14. Odnos apsolutnih i relativnih mjere grešaka prognoza ARIMA6 modela u odnosu na BHAS prognoze⁵ u quasi periodu izvan uzorka (2013q1-2016q4)

³ Izuzetak je proporcija kovarijanse. Proporcija kovarijanse mjeri preostale nesistematske greške prognoza. Što je ova komponenta veća, to znači da je najveći dio greške nastao uslijed slučajnih događaja i ne proizilazi iz nemogućnosti modela da replicira prosjek stvarne serije ili njene varijacije. Ako su prognoze „dobre“, proporcija pristrasnosti i proporcija varijanse trebaju biti male a većina pristrasnosti bi se trebala koncentrisati na proporciju kovarijansi.

⁴ U quasi period izvan uzorka su uključeni podaci za period 2013q1-2016q4.

<i>Mjera tačnosti</i>	ARIMA6 model	BHAS model
<i>RMSE</i>	0,67	0,84
<i>MAE</i>	0,49	0,83
<i>MAPE</i>	0,50	0,86
<i>TI</i>	0,66	0,83
<i>Proporcija pristrasnosti</i>	0,36	1,19
<i>Proporcija varijanse</i>	0,09	0,19
<i>Proporcija kovarijanse</i>	1,56	0,96

Na osnovu rezultata u tabeli 14. može se vidjeti da ARIMA6 model u quasi periodu izvan uzorka (2013q1-2016q4) daje bolje prognoze kvartalnog BDP BiH jer ima relativno manje sve prognostičke greške u odnosu na BHAS prognoze.

3. ZAKLJUČAK

U ovom radu su istražene mogućnosti kreiranja ekonometrijskih modela za izradu kratkoročnih prognoza BDP-a BiH. Analizirani su i ocjenjeni mnogobrojni ARIMA modeli. Kako je a priori veoma teško rangirati različite modele procjene BDP-a njihov relativni rang je ocjenjen na bazi empirijskih podataka. Prilikom izgradnje i pronalaska optimalnog modela vremenskih serija korištena je Box-Jenkins metodologija (1976). Preliminarnom ocjenom parametara početnih ARIMA modela, na osnovu Akaike informacijskog kriterija, odabrana su tri ARIMA modela. Rezultati pokazuju da su $ARIMA(4,1,0)$ model, $ARIMA(0,0,0)(1,1,0)_4$ model i $ARIMA(0,1,1)(0,1,0)_4$ model statistički značajni na nivou od 95% pouzdanosti.

Evaluacija i poređenje različitih modela urađena je na osnovu performansi modela unutar uzorka i izvan uzorka. Prilikom izbora najboljeg modela prognoziranja korištene su mnogobrojne mjere tačnosti prognoza. Modeli koji su imali najbolje performanse po osnovu više kriterija odabrani su za prognoziranje. Konačan izbor ARIMA modela za prognoziranje kvartalnog BDP BiH je odabran na osnovu komparativne analize prediktivne efikasnosti modela. Regresijom prognostičkih grešaka pojedinačnog modela na konstantu (i AR komponentu ukoliko postoji) provjerena je statistička značajnost grešaka prognoze. Rezultati regresijske analize prognostičke greške ukazuju da, uz rizik greške od 5%, ne postoje statističke značajne greške u prognozama navedena tri ARIMA modela.

⁵ Komparaciju grešaka prognoza ARIMA6 modela i grešaka BHAS prognoza u periodu unutar uzorka nije bilo moguće uraditi jer BHAS objavljuje kvartalne prognoze tek od 2013. godine.

Rezultati Mincer-Zarnowitz regresije i Wald testa za ARIMA modele potvrđuju da su prognoze unutar uzorka dobijene na osnovu modela sa 95% pouzdanosti nepristrasne i efikasne. Nadalje, komparacija tačnosti prognoza navedenih modela testirana je Diebold-Mariano testom. Na osnovu datog testa, uz rizik greške od 5%, može se zaključiti da ne postoji statistički značajna razlika u tačnosti prognoza korištenjem tri navedena modela. U nastavku je ispitana opravdanost kombinacije prognoza korištenjem Granger-Ramanathan regresije. U klasi ARIMA modela kao najefikasniji model u prognozama kvartalnog BDP BiH odabran je ARIMA6: ARIMA(0,0,0)(1,1,0)₄ model. Kreiranjem prognoza kvartalnog BDP BiH u roku od 60 dana nakon završetka referentnog kvartala smanjit će veliki vremenski jaz do objave prvog saopštenja o BDP-u BiH od strane Agencije za statistiku BiH. Osim smanjenja vremenskog jaza do objave prvog saopštenja, rezultati istraživanja ukazuju da su prognoze kreirane ARIMA6 modelom efikasnije u odnosu na prognoze BHAS.

U radu se pokazalo da se primjenom ARIMA modela mogu sačinuti adekvatne prognoze BDP BiH. Produžavanjem vremenskih serija stvorit će se pretpostavke za ispitivanje mogućnosti primjene „blocking“ pristupa u prognoziranju BDP BiH ali i ispitivanje mogućnosti povećanja kako perioda unutar uzorka na kojem se vrši ocjena modela, tako i perioda izvan uzorka na kojem se radi evaluacija prognoza. Nadalje, sa dostupnošću novih podataka trebalo bi odabrati najbolju strategiju prognoziranja. Naime, treba odlučiti da li u prognoziranju BDP BiH u narednim godinama koristiti početne ocjene parametara na temelju observacija y_1, y_2, \dots, y_T ili ponovno ocijeniti parametre modela na temelju skupa podataka koji sadrže sve observacije y_{T+i} do momenta kreiranja nove prognoze. Ukoliko se bude radila nova ocjena parametara modela treba donijeti odluku da li za period unutar uzorka koristiti prošireni prozor ili za period unutar uzorka koristiti pokretni prozor.

Literatura

- Antipa, P., Barhoumi, K., Brunhes-Lesage, V. and Darné, O. (2012). Nowcasting German GDP: A comparison of bridge and factor models. Working Paper No. 401, Banque de France.
- Baffigi, A., Golinelli, R. and Parigi, G. (2004). Bridge models to forecast the euro area GDP. *International Journal of Forecasting*, 20(3), 447-460.
- Barhoumi, K., Darné, O., Ferrara, L., and Pluyaud, B. (2011). Monthly GDP forecasting using bridge models: Comparison from the supply and demand sides for the French economy. *Bulletin of Economic Research*, 64(1), 53-70.

- Barionuevo, J.M. (1992). A simple forecasting criterion under rational expectations: Evidence from the World Economic Outlook and Time Series Models. IMF Working Paper 92/48, International Monetary Fund.
- Box, G. E. P., Jenkins, G. M., Reinsel, G. C. and Ljung, G. M. (2016). Time Series Analysis: Forecasting and Control. 5th edition. Hoboken: John Wiley & Sons, Inc.
- Box, G.E.P. and Jenkins, G.M. (1976). Time Series Analysis: Forecasting and Control. Oakland: Holden-Day.
- Çeliku, E., Kristo, E. and Boka, V. (2010). Modelling the quarterly GDP: Role of economic and surveys indicators. Working paper, Central bank of Albania.
- Cobb, M., Echavarría, G., Filippi, P., García, M., Godoy, C., González, W., Medel, C. and Urrutia, M. (2011). Short – term GDP forecasting using bridge models: A case for Chile. Working Papers No. 626, Central Bank of Chile.
- Čolaković, B. and Hlivnjak, S. (2007). Procjena kvartalnog BDP za period 2000-2006. Working paper STI/04/07, Centralna banka Bosne i Hercegovine.
- Dritsaki, C. (2015). Forecasting Real GDP Rate through Econometric Models: An Empirical Study from Greece. *Journal of International Business and Economics*, 3(1), 13-19.
- Kuzin, V., Marcellino, M. and Schumacher, C. (2009). Pooling versus model selection for nowcasting with many predictors: An application to German GDP. Economics Working Papers No. ECO2009/13, European University Institute.
- Maity, B. and Chatterjee, B. (2012). Forecasting GDP growth rates of India: An empirical study. *International Journal of Economics and Management Sciences*, 1(9), 52-58.
- Nunes, L.C. (2005). Nowcasting quarterly GDP growth in a monthly coincident indicator model. *Journal of Forecasting*, 24(8), 575-592. DOI: 10.1002/for.969
- Schumacher, C. and Breitung, J. (2008). Real-time forecasting of German GDP based on a large factor model with monthly and quarterly data. *International Journal of Forecasting*, 24(3), 386-398.
- Shahini, L. and Haderi S. (2013). Short term Albanian GDP forecast: One quarter to one year ahead. *European Scientific Journal*, 9(34), 198-208.
- Stock, J.H. and Watson, M.W. (1998). A comparison of linear and nonlinear univariate models for forecasting macroeconomic time series. NBER Working Paper No. 6607, Cambridge MA.
- Wabomba, M.S., Mutwiri, M.P. and Fredrick, M. (2016). Modeling and Forecasting Kenyan GDP Using Autoregressive Integrated Moving Average (ARIMA) Models. *Science Journal of Applied Mathematics and Statistics*, 4(2), 64-73.

-
- Wei, N., Bian, K.J. and Yuan, Z. F. (2010). Analyze and Forecast the GDP of Shaanxi Province Based on the ARIMA Model. *Journal of Asian Agricultural Research*, 2(1), 34-41.
- Zakai, M. (2014). A time series modeling on GDP of Pakistan. *Journal of Contemporary Issues in Business Research*, 3(4), 200-210.
- Zhang, H. (2013). *Modeling and forecasting regional GDP in Sweden using autoregressive models*. Master thesis, School for Technology and Business Studies Dalarna University.

MODELLING AND FORECASTING GDP IN BOSNIA AND HERZEGOVINA USING ARIMA MODELS

Abstract

In the most EU countries the first estimate of GDP is available 30 days after the end of the quarter to which the assessment relates (Eurostat, 2017). Possibilities of using Box-Jenkins methodology for making short-term forecasts of BiH GDP have been explored in this paper. The variable GDP BiH is available for period 2000q1-2016q4. Due to fact that a priori is very difficult to rank the different models of GDP forecast, their relative rank will be assessed based on empirical data. The final choice of the model for forecasting quarterly B&H GDP was selected on the basis of a comparative analysis of the predictive efficiency of the analyzed models for in-sample-period (2000q1-2014q4) and for a quasi-out-of-sample period (2013q1-2016q4). Based on the obtained research results, the seasonal ARIMA(0,0,0)(1,1,0)₄ model has been selected as the most efficient model in the forecasts of quarterly B&H GDP.

Key words: *quarterly GDP, ARIMA models, unbiasedness, accuracy of forecasting*

JEL classification: *G3, G32, C4, C83*

KLJUČNI FAKTORI USPJEŠNOSTI ŽENSKOG PREDUZETNIŠTVA U KONTEKSTU TRANZICIJSKOG I POST-KONFLIKTNOG OKRUŽENJA U BOSNI I HERCEGOVINI

Munira Šestić

Ekonomski fakultet Univerziteta u Sarajevu

Elvir Čizmić

Ekonomski fakultet Univerziteta u Sarajevu

Senad Softić

Ekonomski fakultet Univerziteta u Sarajevu

Rezime

Značaj ženskog preduzetništva u modernim i savremenim društvima veoma dinamično raste u posljednjih nekoliko decenija. Cilj rada je usmjeren na istraživanje mogućnosti primjene dobrih praksi i iskustava, te modela uspješnosti ženskog preduzetništva uzimajući u obzir specifičnosti bosansko-hercegovačkog okruženja u kontekstu tranzicijske i post-konfliktne dinamike istog. Kroz istraživanje će se testirati percepcija tranzicijskog i post-konfliktnog okruženja u odnosu na varijaciju u individualnim faktorima koji se tiču uspješnosti preduzeća u vlasništvu preduzetnica. Model uspješnosti preduzeća u vlasništvu/suvlasništvu preduzetnica koji posmatra individualne karakteristike preduzetnice i njihov uticaj na uspješnost preduzeća u ovom radu se proširuje istraživanjem uticaja koji društveni kontekst ima na motivaciju. Načini na koje preduzetnice percipiraju društvenu stvarnost utiču na njihovu motivaciju za preduzetništvo i na uspješnost preduzeća u njihovom vlasništvu/suvlasništvu, tako da percepcija okruženja kao prilike ima pozitivan uticaj na motivaciju za preduzetništvo i posredno povećava uspješnost preduzeća, dok percepcija okruženja kao ograničenja ima negativan uticaj na motivaciju za preduzetništvo i smanjuje posredne pozitivne uticaje motivacije na uspješnost preduzeća.

Ključne riječi: *Strateško preduzetništvo, Žensko preduzetništvo, Porodično okruženje, Društveni dinamizam, Tranzicijsko i post-konfliktno okruženje.*

JEL klasifikacija: L20. L26

1. UVOD

Preduzetništvo, kao ekonomski i socijalni fenomen, predstavlja veoma važnu oblast brojnih naučnih istraživanja, posebno zbog činjenice da je intenziviranje preduzetničkih aktivnosti u bliskoj vezi sa višim stopama ekonomskom rasta i ukupnog ekonomskog blagostanja (Schumpeter, 1934, 1939, 1945, 1961; Šunje i Čizmić, 2005). Ipak, pojmove preduzetnik i preduzetništvo je iznova teško definisati, jer ne postoji opšte prihvaćena definicija u akademskoj zajednici ili ekonomskoj javnosti. Navedena situacija predstavlja izazov sam po sebi, jer su mnogi istraživači to učinili na način da su opisali dimenzije preduzetništva kojima su posvećivali pažnju u svojim radovima, bez namjere kreiranja opšte definicije. Posljedica je to ponajprije činjenice da se preduzetništvo izučava kao tema u više disciplina, uključujući sociologiju, psihologiju, ekonomiju, menadžment - sve navedeno je imalo za rezultat različite definicije koje su polazile iz različitih uglova posmatranja ovog veoma važnog poslovnog, sociološkog i generalno naučnog fenomena. Simplificirano posmatrano, sa čisto ekonomskog aspekta, pojam preduzetništva se može istraživati kroz fokus na novčanu dobit i rast poslovanja. S druge strane, posmatrati preduzetništvo iz psihološke perspektive znači posvetiti pažnju specifičnim karakteristikama, vrijednostima i idiosinkratičnim svojstvima koje su prirodne i neodvojive od ličnosti preduzetnika/ce.

Iako je preduzetništvo nedvojbeno steklo naučni interes, očit je nedostatak opšteprihvaćene definicije pojma, kao i pitanja od čega se treba sastojati područje istraživanja preduzetništva (Gartner, 1990). Kao i kod mnogih drugih naučnih disciplina, postoji rastuća bojazan da će se preduzetništvo „fragmentirati“ među naučnicima, koji će time možda marginalizirati svoj doprinos ukupnoj temi. Dok neke definicije preduzetništva svoj fokus usmjeravaju na kreiranje poslovne aktivnosti, inovacije, rizik i kreiranje blagostanja (Schumpeter, 1934, 1939, 1961; Fry, 1992; Gartner, 1995), drugi autori polemišu da preduzetništvo i nije pojam koji može jednostavno i jednoznačno biti definisan (Bennett i Dann, 2000; Hofer i Bygrave, 1992; Hyrsky, 1999). Potonji pak i nedvojbeno smatraju da je preduzetništvo fenomen koji je kontruisan dijelom od nauke, a djelom od vještine, te da se kao takav sastoji od faktora različite snage i različitih postavki koji proizilaze iz konteksta djelatnosti, kulturoloških aspekata zemlje i vremenskog trenutka. Imajući na umu sve gore navedene razloge, u radu će biti obrađena ona pojmovna određenja čiji je fokus relevantan samoj temi rada.

Šumpeter (1934) preduzetnika opisuje kao inovatora koji uvodi određeni oblik inovacije u ekonomske aktivnosti ističući da to može biti novi proizvod, novi način proizvodnje, novi način organizacije proizvodnje ili novi način nabavke sirovina

koja se koristi u procesu proizvodnje. Sve te aktivnosti za posljedicu mogu imati novi ustroj i strukturu privredne djelatnosti jer mogu rezultirati nastajanjem ili nestajanjem monopolskih pozicija. Glavna misao vodilja Šumpeterove definicije preduzetništva je da je preduzetnik nosilac inovacije, te da je on ujedno i ključni faktor za implementaciju inovacija i novih ideja u komercijalnu proizvodnju. Šumpeter je preduzetnika učinio centralnom tačkom i ključem za dinamiku ekonomskog rasta i razvoja. Po njemu je preduzetnik nosilac poslovnih aktivnosti čiji rad kreira ekonomske i socijalne efekte koji ovise o njegovim preduzetničkim vještinama, kreativnosti i načinu korištenja jedinstvenih prilika (okruženja, uslova i situacija) u kojem djeluju. S druge strane Kirzner (1973) slično kao i Šumpeter, smatra preduzetnika donosiocem odluka u određenom kulturnom kontekstu te smatra da od navedenog konteksta ovisi način ponašanja onih koji iskorištavaju uočene poslovne mogućnosti.

Šumpeterovo i Kirznerovo pojmovno određenje preduzetništva je potvrđeno kao relevantno za objašnjenje ukupnog ekonomskog razvoja države, ali i pojedinačnog, odnosno individualnog preduzetničkog uspjeha (Ripsas, 1998; Wennekens i Thurik, 1999). Stanovišta i Šumpetera i Kirznera su empirijski potvrđena i preporučena kao stanovišta koja istorijski i kulturalno kreiraju okvirne uslove koji utiču na preduzetničke aktivnosti smještene u datom vremenu i prostoru i predstavljaju specifična iskustva preduzetnih pojedinaca (Venkataraman 1997, Shane 2000, Shane i Venkataraman 2000, OECD 2004).

2. FENOMENOLOGIJA ŽENSKOG PREDUZETNIŠTVA

Iako u većini zemalja čine oko polovinu stanovnika, većina biznisa je u posjedu muškaraca ili su vođeni od strane muškaraca. Istorijski posmatrajući, žene su uvijek bile prisutne u ekonomskim aspektima društvene stvarnosti, posebno u trgovini, obrazovanju i zdravstvu. Čak i u vrijeme samih početaka formalnog uspostavljanja korporativnog upravljanja prilikom registracije pravnog lica, kao bitna odrednica ozbiljnosti preduzetnika za registraciju kompanije bila je činjenica da li je podnosilac zahtjeva za registraciju - oženjen. Prateći najpoznatije primjere uspješnih poslovnih žena kroz historiju, one su uvijek i iznova pronalazile nove strategije za rješavanje njima specifičnih problema koji su proizlazili iz mnogobrojnih aktivnosti na koje su morale odgovoriti, a koje su posljedica njihove specifične uloge u svakom društvu.

Pojam ženskog preduzetništva je pojam koji se tiče pokretanja i vođenja poslovnih poduhvata a preduzetnice su poslovne žene koje su prepoznale poslovnu priliku, razvile je, ponudile tržištu, te uspješno vode svoje poslovni poduhvat. Jednostavnim rječnikom rečeno to su poslovne žene koje su na

kreativan, praktičan i inovativan način pretočile poslovnu mogućnost u komercijalnu stvarnost. Aktivnost žena preduzetnica tiče se prepoznavanja poslovne mogućnosti i upravljanje raspoloživim resursima u razvijanju poslovnih aktivnosti, te njeno vođenje prema rastu i daljem razvijanju.

Može se reći i da je žensko preduzetništvo ekonomska aktivnost žena koje razmišljaju o vlastitom poslu, pokreću ga, organizuju i upravljaju raspoloživim resursima, upravljaju svojim poslovnim djelatnostima i što je možda i najvažnije preuzimaju rizik odnosno ekonomsku nesigurnost koju podrazumjeva vođenje sopstvenog posla (Dubini, 1989). Ukoliko se u obzir uzme američka definiciju ona pojmovno određuje žensko preduzeće (preduzetnicu) kao poslovni subjekt prisutan na tržištu, a koji je barem 51% u vlasništvu žene koja ga vodi.

Preduzetnice su dakle poslovne žene čiji poslovni poduhvati odražavaju definirane preduzetničke karakteristike i koje su u tom „duhu“ provode i implementiraju svoje preduzetničke aktivnosti i procese. Preduzetnice prepoznaju poslovnu mogućnost, te uspješno pronalaze sredstva potrebna za provođenje poslovnog poduhvata i iskorištavanje uočene poslovne mogućnosti. Preduzetnice su aktivno uključene u dinamičan preduzetnički proces nastojeći da proces ostvari potencijal za uspjeh i rast u budućnosti.

Preduzetnice se često pojavljuju i u kontekstu intrapreduzetničkih aktivnosti kao osobe koje unutar već etabliranih organizacija pokreću promjene načina poslovanja, kreiraju i uvode nove proizvode i usluge te pokreću i provode različite projekte za unapređenje postojećih organizacija.

Za praćenje ženskog preduzetništva za potrebe statističkih okvira, ali i generalno govoreći, preduzetnice su pojmovno određene kao žene ili grupa žena koje su odlučile pokrenuti, organizovati i voditi poslovnu aktivnost. Zakonska rješenja koja se tiču pojmovnog određenja ženskog preduzetništva ili preduzetnice, u različitim državama svijeta najčešće su fokusirana na poslovnu aktivnost u vlasništvu ili kontrolisanu od strane žene, sa naglaskom da žena posjeduje minimalno 51% vlasničkog interesa u posmatranom pravnom obliku (Čovo, 2007). Isti autor naglašava važnost aspekta kontrole poslovanja, jer kontrola znači stvarno provođenje vlasničkih, ali i upravljačkih prava prilikom donošenja poslovnih odluka. To je ključni preduslov da je vlasnica može biti prepoznata kao preduzetnica, jer je aktivno uključena u svakodnevno upravljanje, rukovođenje i operacionalizaciju poslovnih aktivnosti.

Preduzetnička aktivnost žena kao dio ukupne preduzetničke aktivnosti jedne ekonomije, pokazuje izražen trend rasta, ali je ipak još uvijek manja u svom obimu spram preduzetničke aktivnosti muškaraca (Bowen i Hirsch, 1986; Parker 2009). Prema istraživanjima u prvoj dekadi ovog vijeka, preduzetnička aktivnost žena mjerene stopom samozapošljavanja, osnivanjem novih biznisa ili vlasništvom/suvlasništvom preduzeća relativno je manja u odnosu na preduzetničku aktivnost muškaraca mjerenu istim pokazateljima. Ovi pokazatelji vrijede, kako za razvijene tržišne ekonomije, tako i za zemlje u razviju, ali i za zemlje u procesu tranzicije (Klapper i Parker, 2011).

U posljednje tri dekade, raste učešće žena u ukupnoj aktivnoj radnoj snazi. S druge strane, broj žena koje pokreću i učestvuju u poslovnim aktivnostima, putem samozaposlenja ili vlasništva/suvlasništva također postaje veoma vidljiv i značajan trend. Ipak u većini zemalja i regiona, potvrđena je ograničena raspoloživost informacija i statističkih podataka vezano za žensko preduzetništvo. Bitno je naglasiti da u velikom broju zemalja i regiona i ne postoje službene statistike vezano za pol vlasnika preduzeća, nego su vlasnici uglavnom kategorizirani prema djelatnosti, lokaciji i veličini (Butler, 2003; OECD, 2004). Neujednačenost statističke evidencije predstavlja poteškoću na način da je teško utvrditi sa određenim stepenom tačnosti stvarni obim ženskog preduzetništva, te varijacije u odnosu na određene zemlje i regione.

Porast broja preduzetnica u posljednjim dekadama prošlog i prve dvije dekade ovog vijeka posljedica su društvenih promjena koje su se desile i koje se još uvijek dešavaju širom svijeta. Kako se povećavao broj radno sposobnih žena, također se povećavao i broj žena koje su vezane za biznis. Veća nezavisnost žena, kasnija udaja, manji broj djece koja se rađaju unutar jedne porodice, viši stepen obrazovanja žena i njihova povećana želja za finansijskom nezavisnošću, uzroci su porasta broja biznisa u vlasništvu žena (Fielden i Davidson, 2005). Jednostavnim rječnikom rečeno, žene ranije nisu imale mogućnosti, obrazovanje ili društveno ohrabrenje da se bave biznisom, kao što je to slučaj danas. Danas baviti se sopstvenim biznisom je prihvatljiva karijerna mogućnost za žene, čak u nekoj mjeri i poželjnija, zbog potencijalne fleksibilnosti i nezavisnost koja drugi izbori karijere ne nude. Kroz preduzetništvo žene stižu nezavisnost, mogućnost samostalnog odlučivanja i kreiranja radnog vremena, te su u mogućnosti uskladiti privatne i poslovne obaveze. Preduzetnice uspostavljaju jake društvene mreže sa drugim preduzetnicama, a sve sa ciljem jačanja svoje ukupne uloge u društvu. Preduzetnice brže koriste savremena organizacijska rješenja i moderne menadžerske alate kao što su timski rad, delegiranje, fleksibilna organizacija, razmišljaju svestranije, bolje razumiju ljude i bolje umiju da ih slušaju. Neke od

ličnih karakteristika preduzetnica su (Čizmić i Crnković, 2012) jaka motivisanost za uspjeh, spremnost da prihvate kontrolisani rizik, inicijativa i spremnost na akciju, izrazita energičnost i posvećenost, dobre društvene i komunikacijske vještine, dobra samokontrola i analitičke vještine, te orjentisanost na postizanje rezultata.

Glavne karakteristike ženskog preduzetništva (MINPO RH, 2014) su: (1) radno mjesto koje kreira preduzetnica je sigurnije, jer su preduzeća u kojem je žena vlasnica ili suvlasnica preduzeća manja, (2) preduzetnice kreiraju manje, ali i ukidaju manje radnih mjesta, (3) preduzetnice pokazuju veću brigu za zaposlene i teže kvalitetnim međusobnim odnosima, (4) preduzetnice daju podršku svojim zaposlenim u ostvarenju njihovih ambicija, (5) preduzetnice ulažu više u edukaciju svojih zaposlenih, (6) preduzetnice rjeđe svoj uspjeh mjere ostvarenim profitom, a više zadovoljstvom svojih kupaca, razvijanjem sposobnosti svojih zaposlenih i uspješnošću međusobnih odnosa, (7) preduzetnice su spremnije na timski rad, te im je važniji uspjeh same kompanije ili neke ideje koju zagovaraju nego zadovoljenje vlastitog ega, (8) preduzetnice nude više mogućnosti za naknadu troškova, udio u ostvarenom profitu, fleksibilnije radno vrijeme, te su otvorenije prema opciji kada je u pitanju korištenje porodiljskog odsustva, (9) preduzetnice su opreznije prilikom kreditnog zaduživanja i konačno (10) preduzetnice se najčešće bave uslužnim djelatnostima, jer su društveno osjetljivije, ali i iz razloga što pokretanje takvih djelatnosti traži manja početna ulaganja.

Sistemska istraživanja na temu ženskog preduzetništva značajno su prisutna u razvijenim zemljama, posebno u SAD, Kanadi i Velikoj Britaniji, dok su manje prisutna u ostatku svijeta. Određene studije su provedene i u drugim zemljama kao što su Francuska, Singapur, Rusija, Litvanija, Irska, Kina, Turska, Mađarska, Izrael i dr. Od 70tih i 80tih godina prošlog vijeka povećan je akademski interes za istraživanje ženskog preduzetništva, uglavnom kao posljedica rastućeg broja biznisa koji su pokrenuti od strane žena u razvijenim zemljama, ali i zbog činjenice da su se preduzetnice sučavale sa poteškoćama u pokretanju i vođenju svojih biznisa na drugačiji način nego što je to slučaj kod njihovih kolega preduzetnika (Neider, 1987). Hisrich i Brush (1984) svojim radom potvrđuju da je većina dotadašnjih saznanja o preduzetničkoj aktivnosti vezana za preduzetnike, dok Carter i Cannon (1992) kritiziraju autore koji smatraju da se rezultati provedenih studija na preduzetnicima mogu neupitno primijeniti i na slučajeve preduzetnica. Bird i Brush (2002) utvdjuju da žene i muškarci na različit način upravljaju svojim biznisima, odnosno da koriste različite strategije i primjenjuju različite organizacijske strukture. Hisrich i Brush (1986) potvrđuju da su biznisi u vlasništvu žena više različiti, nego slični biznisima u vlasništvu muškaraca.

Razlika je prije svega identifikovana u njihovoj motivaciji, u različitosti procesa otpočinjanja biznisa, njihovim primjenjenim administrativnim i preduzetničkim vještinama, profesionalnom iskustvu, te vrsti problema sa kojima se suočavaju u poslovanju. Istražujući profil preduzetnica u Poljskoj Zapalska (1997)_utvrđuje značajne razlike spram preduzetnika u važnim dimenzijama kao što su problemi sa kojima se suočavaju, razlozi zbog kojih se počinju baviti preduzetništvom, različiti ciljevi kojima se usmjeravaju, te različiti faktori vrednovanja uspjeha njihovih biznisa.

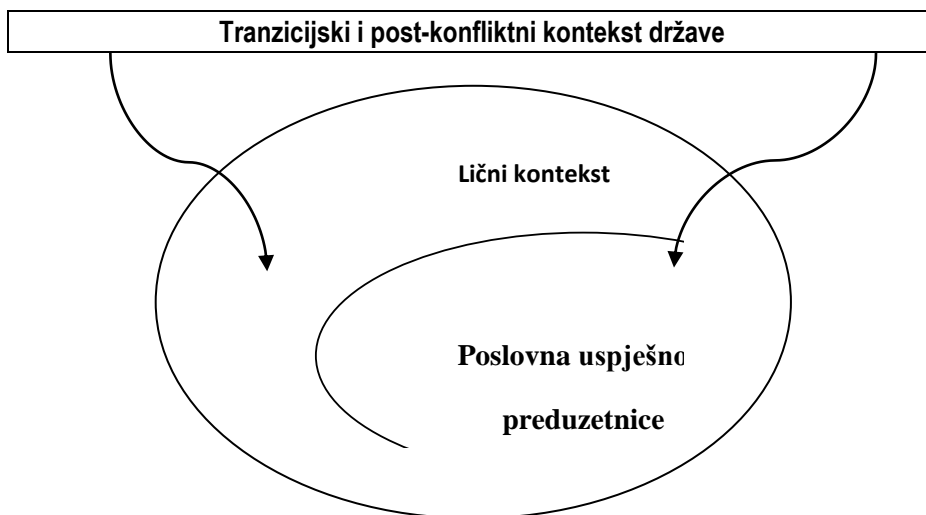
Minniti i drugi (2005)_potvrđuju da je pristup preduzetništvu kod preduzetnika i preduzetnica pod uticajem identičnih varijabli, ali da ovi faktori ne djeluju kod preduzetnika i preduzetnica na isti način, niti istim intenzitetom. Posljedično, odluka o pokretanju biznisa za preduzetnike i preduzetnice je različita u načinu donošenja same odluke i njene implementacije, posebno po pitanju ne-finansijskih poticaja za tu odluku jer preduzetnice pokazuju veću osjetljivost na iste (Minniti, 2009). Većina navedenih studija o preduzetnicama fokusirana je na ličnost preduzetnice, te su inicijalne studije utvrdile osnovne karakteristike ličnosti preduzetnice i organizacione karakteristike njihovih biznisa. Recentne studije imaju značajno širi dijapazon oblasti istraživanja, te se bave specifičnim problemima sa kojima se suočavaju preduzetnice, njihovim specifičnim upravljačkim procesima, njihovim menadžerskim percepcijama, njihovim sposobnostima da ostvare postavljene ciljeve, njihovim razlikama spram preduzetnika, eventualnim sukobima uloge preduzetnice i uloge unutar porodice, te istraživanjima vizije koju preduzetnice imaju za svoje biznise. Metodološki, većina studija je bazirana na pregledima literature i studijama slučaja, deskriptivnim istraživanjima i istraživanjima koja koriste konvencionalne uzorke zbog nepouzdanosti postojećih baza podataka o preduzetnicama. Metodološke nedoumice istraživanja u oblasti ženskog preduzetništva tiču se nedostatka valjanosti instrumenata, postojanje najčešće samo jednog izvora informacija/podataka, te tendencija da se generaliziraju ponašanje i karakteristike različitih tipova preduzetnica (Brush, 1992). Uprkos svemu, dosadašnje studije su proizvele osnove znanja za razvoj teorija o preduzetničkim aktivnostima žena.

3. KONCEPTUALIZACIJA ISTRAŽIVANJA I KARAKTERISTIKE UZORKA

Provedeno istraživanje fokus stavlja na fenomen ženskog preduzetništva u Bosni i Hercegovini. Veliki značaj u modeliranju uspješnosti preduzeća ženskog preduzetništva ima uvažavanje specifičnosti konteksta u kojem istraživana preduzeća, u većinskom vlasništvu preduzetnica, djeluju. Rad je usmjeren na analizu uticaja koji ima kontekst tranzicijskog i post-konfliktnog okruženja na

uspješnost preduzeća ženskog preduzetništva i to na način da se dobije jasnija slika modela koji uvažava specifičnosti bosanskohercegovačkog društva kako se može vidjeti na slici 1.

Slika 1. Šematski prikaz istraživačkog modela



Kreiran je model koji u ekonomsku stvarnost Bosne i Hercegovine ne „preslikava“ modele prihvaćene u razvijenim ekonomijama i društvima, već ga prilagođavanja u cilju njegove prihvatljivosti sa aspekta trenutka i okruženja u kojem je pripreman i primijenjen. Za bolje razumijevanje mehanizma uticaja faktora na uspješnost preduzeća u vlasništvu preduzetnica konceptualno su postavljene i testirane istraživačke hipoteze, kako slijedi:

H1: Preduzetničko porodično okruženje ima pozitivan uticaj na poslovnu uspješnost preduzetnice.

H2: Društveni dinamizam preduzetnice ima pozitivan uticaj na njenu poslovnu uspješnost.

H3: Percepcija tranzicijskog okruženja kao prilike ima pozitivan uticaj kroz motivaciju preduzetnice na njenu poslovnu uspješnost.

H4: Percepcija post-konfliktnog okruženja kao ograničenja ima negativan uticaj kroz motivaciju preduzetnice na njenu poslovnu uspješnost.

Za testiranje definiranih hipoteza je korišten regresijski model sa ciljem ispitivanja intenziteta uticaja nezavisnih varijabli na zavisnu varijablu u modelu, prikazanu kroz uspješnost preduzeća koje vode preduzetnice. Kroz istraživanje su obuhvaćene 253 poslovna društva_ različitih profila i veličina gdje se najvećim

dijelom kao većinski vlasnici istih pojavljuju osobe ženskog spola. Istraživački uzorak se sastoji od malih preduzeća koja imaju do 10 zaposlenih (77,08%), dok je najmanje preduzeća koja imaju više od 250 zaposlenih (0,79%). Manji je udio preduzeća koja imaju 11-50 zaposlenih (16,21%) i 51-250 zaposlenih (5,93%). Ako se u obzir uzme godišnji (bruto) prihod preduzeća iz uzorka, najveći broj preduzeća ostvaruje do 2,000,000 KM prihoda (81,42%), dok samo 4,74% preduzeća ostvaruju prihod veći od 8,000,000 KM. Također, manji je udio preduzeća koja ostvaruju prihod u rasponu 2,000,001-8,000,000 KM (13,83%).

Kada se analizira djelatnost preduzeća iz uzorka, može se uočiti da najveći broj preduzeća posluje u okviru stručne, znanstvene i tehničke djelatnosti (15,81%), administrativne i pomoćne uslužne djelatnosti (17,39%), trgovine na veliko i malo, popravke motornih vozila i motocikala (17%) i informacijske i komunikacijske oblasti (10,67%). U ostalim djelatnostima posluje manje od 10% preduzeća iz uzorka, te se najmanje preduzeća bavi nekretninama (0,79%), vađenjem rude i kamena (0,40%), te obaveznim socijalnim osiguranjem (1,40%). Što se tiče strukture vlasništva preduzeća iz uzorka, u najviše preduzeća preduzetnice imaju od 76-100% vlasništva (69,96%), dok je najmanje preduzeća koja imaju do 10% vlasništva preduzetnica (2,77%) i od 11-25% njihovog vlasništva (3,16%). Također, manji je udio preduzeća gdje žene koja imaju 26-50% vlasništva (13,83%) i od 51-75% vlasništva (10,28%). Aproximativno trećina ispitanica ima od 26-35 godina (31,23%) i od 36-45 godina (37,94%). Najmanje ispitanica ima 66 godina i više (1,19%), manje od 25 godina (3,95%) i godine starosti od 56-65 godina (7,51%). Najveći broj ispitanica je završilo fakultet (41,50%). Četvrtina ispitanica ima završenu srednju školu (25,30%) i magistarski/doktorski studij (23,72%). Najmanje ispitanica je završilo samo osnovnu školu (0,40%) i višu školu (9,09%). Na bazi navedenih karakteristika uzorka i kosnstrukata projektiranih hipotetskim okvirom izvršeno je testiranje reprezentativnosti regresijskog modela na bazi ranije predočenog prigodnog uzorka.

4. DISKUSIJA REZULTATA ISTRAŽIVANJA

Rezultati provedenih istraživanja po prvi put daju prikaz ženskog preduzetništva u Bosni i Hercegovini jer se istražuju i potvrđuju relevantne činjenice o faktorima uspješnosti preduzeća u vlasništvu preduzetnica, te posebno istražuju i utvrđuje uticaj specifičnosti bosanskohercegovačkog tranzicijskog i post-konfliktnog okruženja na uspješnost preduzetnica u njihovoj preduzetničkoj djelatnosti. Tabela 1. prikazuje zbirne rezultate regresijskih modela uticaja preduzetničkog porodičnog okruženje na uspješnost preduzetnice (H1: *Preduzetničko porodično okruženje ima pozitivan uticaj na poslovnu uspješnost preduzetnice.*).

Tabela 1. Zbirni rezultati regresijskih modela uticaja preduzetničkog porodičnog okruženja na poslovnu uspješnost preduzetnice (H1)

Nezavisne varijable	Zavisne varijable			Ukupan efekt
	G1	G2	H13	
<i>F1_1- Moj otac ima/je imao preduzetničkog iskustva</i>	(-) 5%		(-) 1%	(-)
<i>F1_2- Moja majka ima/je imala preduzetničkog iskustva</i>				Ø
<i>F1_3- Moja braća/sestre imaju preduzetničkog iskustva</i>			(+) 1%	(+)
<i>F1_4- Moj bračni drug/partner ima preduzetničkog iskustva</i>			(+) 1%	(+)
<i>F1_5- Moja šira porodica ima/je imala članove sa preduzetničkim iskustvom (npr. roditelji mojih roditelja, bliži ili dalji rođaci)</i>				Ø
<i>F2_1- Članovi moje porodice pozitivno su reagovali na moju preduzetničku inicijativu</i>	(+) 5%	(+) 5%	(-) 1%	(+)
<i>F2_2- Članovi moje porodice finansijski su podupri moju preduzetničku inicijativu</i>				Ø
<i>F2_3- Članovi moje porodice aktivno mi pomažu u mojoj preduzetničkoj inicijativi</i>	(-) 1%		(+) 1%	Ø
OBRAZ_M_KOD		(+) 5%	(+) 1%	(+)
OBRAZ_O_KOD		(+) 5%	(+) 1%	(+)
OBRAZ_KOD	(+) 1%	(+) 5%	(+) 1%	(+)
OBRAZ_P_KOD				Ø
BR_ZAP_KOD	(+) 1%	(+) 1%	(+) 1%	(+)
PROMET_KOD			(+) 1%	(+)
VLASN_KOD				Ø
GOD_KOD	(-) 1%	(+) 1%	(+) 1%	(+)
TRZISTE_KOD		(+) 1%	(+) 1%	(+)
DOB_KOD	(-) 5%	(-) 1%	(-) 1%	(-)
RAD_STAZ_KOD				Ø
OBLIK_KOD				Ø
R-square	0, 13 7	0, 27 3	0, 53 3	
Broj pozitivnih statistički značajnih nezavisnih varijabli				3/8
Zaključak	Hipoteza se prihvata			

Izvor: Autorski rad; anketno istraživanje maj-oktobar, 2018.

Napomena: Nezavisne varijable kojima se testira hipoteza označene su sa italic fontom, dok se ostale nezavisne varijable koriste kao kontrolne.

Na osnovu rezultata istraživanja može se vidjeti da od ukupno osam nezavisnih varijabli, tri nezavisne varijable imaju pozitivan statistički uticaj na zavisne varijable. Može se istaći nezavisna varijabla F2_1 - Članovi moje porodice pozitivno su reagovali na moju preduzetničku inicijativu koja ima statistički značajan pozitivan uticaj na dvije zavisne varijable: G1 - zbirna varijabla uspjeha preduzeća u prethodnim kalendarskim godinama i G2 - zbirna varijabla uspjeha preduzeća u protekloj kalendarskoj godini u odnosu na konkurente. Također, većina kontrolnih varijabli imaju statistički značajan pozitivan uticaj na zavisne varijable. Konačno može se zaključiti kako se hipoteza H1: Preduzetničko porodično okruženje ima pozitivan uticaj na poslovnu uspješnost preduzetnice, prihvata. Nadalje Tabela 2. prikazuje zbirne rezultate regresijskih modela uticaja društvenog dinamizma preduzetnice na njenu poslovnu uspješnost (H2: Društveni dinamizam preduzetnice ima pozitivan uticaj na njenu poslovnu uspješnost).

Tabela 2. Zbirni rezultati regresijskih modela uticaja društvenog dinamizma preduzetnice na njenu poslovnu uspješnost (H2).

Nezavisne varijable	Zavisne varijable			Ukupan efekt
	G1	G2	H13	
<i>D1_1- Član/ica sam udruženja koja potiču razvoj preduzetništva i moje poslovne grane</i>	(+) 1%		(-) 1%	Ø
<i>D1_2- Imam dobre savjetnike iz područja računovodstva / finansija, a koji/a nisu iz reda mojih zaposlenika</i>			(+) 1%	(+)
<i>D1_3- Imam dobre savjetnike iz područja marketinga, a koji/a nisu iz reda mojih zaposlenika</i>	(-) 5%			(-)
<i>D1_4- Imam dobre savjetnike iz pravnog područja, a koji/a nisu iz reda mojih zaposlenika</i>			(+) 1%	(+)
<i>D1_5- Imam formalnog/neformalnog mentora/mentoricu koji/a me savjetuje u poslovanju</i>		(-) 1%	(-) 1%	(-)
<i>D1_6- Moja neformalna poznanstva pomažu mi u razvoju preduzeća</i>	(-) 5%		(+) 1%	Ø
<i>D2_1- Stručno mišljenje za specifičan problem</i>			(+) 1%	(+)
<i>D2_2- Opšte informacije i savjeti</i>				Ø
<i>D2_3- Kritika vašeg mišljenja ili procjene</i>				Ø
<i>D2_4- Kao dio tima za diskusiju ideje</i>		(+) 5%		(+)
<i>D2_5- Kao „protuteža“ vašem mišljenju</i>			(-) 1%	(-)
<i>D2_6- Za ohrabrenje i motivaciju</i>	(+) 1%	(+) 1%	(+) 1%	(+)
OBRAZ_M_KOD	(+) 5%			(+)
OBRAZ_O_KOD			(+) 1%	(+)
OBRAZ_KOD	(+) 1%		(+) 5%	(+)
OBRAZ_P_KOD		(+) 5%		(+)
BR_ZAP_KOD	(+) 1%	(+) 1%	(+) 1%	(+)

PROMET_KOD			(+) 1%	(+)
VLASN_KOD				Ø
GOD_KOD	(-) 1%	(+) 1%	(+) 1%	(+)
TRZISTE_KOD		(+) 1%	(+) 1%	(+)
DOB_KOD	(-) 5%	(-) 1%	(-) 1%	(-)
RAD_STAZ_KOD				Ø
OBLIK_KOD			(+) 5%	(+)
R-square	0,201	0,343	0,580	
Broj pozitivnih statistički značajnih nezavisnih varijabli				5/12
Zaključak	Hipoteza se prihvata			

Izvor: Autorski rad; anketno istraživanje maj-oktobar, 2018

Napomena: Nezavisne varijable kojima se testira hipoteza označene su sa italic fontom, dok se ostale nezavisne varijable koriste kao kontrolne.

Kako se može vidjeti od ukupno 12 nezavisnih varijabli, pet nezavisnih varijabli ima pozitivan statistički uticaj na zavisne varijable. Može se istaći nezavisna varijabla *D2_6-Za ohrabrenje i motivaciju* koja ima statistički značajan pozitivan uticaj na sve tri zavisne varijable: *G1-zbirna varijabla uspjeha preduzeća u prethodnim kalendarskim godinama*, *G2-zbirna varijabla uspjeha preduzeća u protekloj kalendarskoj godini u odnosu na konkurente* i *H13-zbirna varijabla očekivanog poslovanja preduzeća u budućnosti*. Također, većina kontrolnih varijabli imaju statistički značajan pozitivan uticaj na zavisne varijable. Može se zaključiti kako se hipoteza H2: Društveni dinamizam preduzetnice ima pozitivan uticaj na njenu poslovnu uspješnost, prihvata. U nastavku Tabela 3. daje skraćeni prikaz konačnih rezultata regresijskih modela uticaja percepcije tranzijskog okruženja, kao prilike, na motivaciju preduzetnice za njenu poslovnu uspješnost (*H3: Percepcija tranzijskog okruženja kao prilike ima pozitivan uticaj kroz motivaciju preduzetnice na njenu poslovnu uspješnost.*).

Tabela 3. Konačni zbirni rezultati regresijskih modela uticaja percepcije tranzijskog okruženja, kao prilike, kroz motivaciju preduzetnice na njenu poslovnu uspješnost (H3)

Nezavisne varijable	Zavisne varijable			Ukupan efekt
	G1	G2	H13	
Broj pozitivnih statistički značajnih nezavisnih varijabli – motivacija				9/25
Broj pozitivnih statistički značajnih nezavisnih varijabli – tranzicija				5/13
Broj statistički značajnih promjena koeficijenta determinacije				3/3
Zaključak	Hipoteza se prihvata			

Izvor: Autorski rad; anketno istraživanje maj-oktobar, 2018

Na osnovu rezultata istraživanja vezano za zbirne rezultate regresijskih modela uticaja motivacije na uspješnost poslovanja preduzeća, uz percepciju tranzicijskog okruženja (*H3: Percepcija tranzicijskog okruženja kao prilike ima pozitivan uticaj na motivaciju preduzetnice za njenu poslovnu uspješnost.*) može se uočiti da od ukupno 25 nezavisnih varijabli koje se odnose na motivaciju, devet nezavisnih varijabli ima pozitivan statistički uticaj na zavisne varijable. Može se istaći nezavisna varijabla *C1_10-„Dokazati sebi“ da mogu ostvariti preduzetničku ideju* koja ima statistički značajan pozitivan uticaj na sve tri zavisne varijable: *G1-zbirna varijabla uspjeha preduzeća u prethodnim kalendarskim godinama*, *G2-zbirna varijabla uspjeha preduzeća u protekloj kalendarskoj godini u odnosu na konkurente* i *H13-zbirna varijabla očekivanog poslovanja preduzeća u budućnosti*. Od ukupno 13 nezavisnih varijabli koje se odnose na tranziciju, pet nezavisnih varijabli ima pozitivan statistički uticaj na zavisne varijable. Može se istaći nezavisna varijabla *A2_1-Odnos prema ženama na radnom mjestu je zadovoljavajući* koja ima statistički značajan pozitivan uticaj na dvije zavisne varijable: *G2-zbirna varijabla uspjeha preduzeća u protekloj kalendarskoj godini u odnosu na konkurente* i *H13-zbirna varijabla očekivanog poslovanja preduzeća u budućnosti*. Također, većina kontrolnih varijabli imaju statistički značajan pozitivan uticaj na zavisne varijable. Može se zaključiti kako se hipoteza H3: *Percepcija tranzicijskog okruženja kao prilike ima pozitivan uticaj kroz motivaciju preduzetnice za njenu poslovnu uspješnost*, prihvata. Konačno, Tabela 4. daje skraćeni prikaz konačnih rezultata regresijskih modela uticaja percepcije post-konfliktnog okruženja, kao ograničenja, na motivaciju preduzetnice za njenu poslovnu uspješnost (*H3: Percepcija post-konfliktnog okruženja kao ograničenja ima negativan uticaj kroz motivaciju preduzetnice na njenu poslovnu uspješnost*).

Tabela 4. Konačni zbirni rezultati regresijskih modela percepcije post-konfliktnog okruženja, kao ograničenja, na motivaciju preduzetnice za njenu poslovnu uspješnost (H4)

Nezavisne varijable	Zavisne varijable			Ukupan efekt
	G1	G2	H13	
Broj pozitivnih statistički značajnih nezavisnih varijabli – motivacija				10/25
Broj negativnih statistički značajnih nezavisnih varijabli – post-konflikti				5/8
Broj statistički značajnih promjena koeficijenta determinacije				3/3
Zaključak	Hipoteza se prihvata			

Izvor: Autorski rad; anketno istraživanje maj-oktobar, 2018

Na osnovu rezultata istraživanja vezano za zbirne rezultate regresijskih modela uticaja motivacije na uspješnost poslovanja preduzeća, uz percepciju post-

konfliktnog okruženja (*H4: Percepcija post-konfliktnog okruženja kao ograničenja ima negativan uticaj kroz motivaciju preduzetnice na njenu poslovnu uspješnost*), pokazuju da od ukupno 25 nezavisnih varijabli koje se odnose na motivaciju, deset nezavisnih varijabli ima pozitivan statistički uticaj na zavisne varijable. Može se istaći nezavisna varijabla *C1_10-„Dokazati sebi“ da mogu ostvariti preduzetničku ideju* koja ima statistički značajan pozitivan uticaj na sve tri zavisne varijable: *G1-zbirna varijabla uspjeha preduzeća u prethodnim kalendarskim godinama*, *G2-zbirna varijabla uspjeha preduzeća u protekloj kalendarskoj godini u odnosu na konkurente* i *H13-zbirna varijabla očekivanog poslovanja preduzeća u budućnosti*. Od ukupno osam nezavisnih varijabli koje se odnose na post-konfliktni kontekst, pet nezavisnih varijabli ima negativan statistički uticaj na zavisne varijable. Može se istaći nezavisna varijabla *B1_1-Dešavanja iz proteklog rata još uvijek izazivaju veliku pažnju u BiH* koja ima statistički značajan negativan uticaj na zavisnu varijablu *H13-zbirna varijabla očekivanog poslovanja preduzeća u budućnosti*, te *B1_8- Pomirenje unutar BiH je u potpunosti ostvareno* koja ima statistički značajan negativan uticaj na zavisnu varijablu *G1-zbirna varijabla uspjeha preduzeća u prethodnim kalendarskim godinama*. Većina nezavisnih varijabli imaju statistički značajan negativan uticaj barem na jednu zavisnu varijablu. Također, većina kontrolnih varijabli imaju statistički značajan pozitivan uticaj na zavisne varijable. Konačno može se zaključiti kako se hipoteza *H4: Percepcija post-konfliktnog okruženja kao ograničenja ima negativan uticaj kroz motivaciju preduzetnice na njenu poslovnu uspješnost*, prihvata.

Na osnovu istraživanja može se vidjeti da žensko preduzetništvo u Bosni i Hercegovini može biti prepoznato i vrednovano kao važan segment aktuelne preduzetničke stvarnosti, kojem se u drugim dijelovima svijeta, pristupa sa uvažavanjem specifičnosti samog pojma i konteksta djelovanja. Samo uz to uvažavanje, žensko preduzetništvo će moći ostvarivati svoj puni preduzetnički potencijal u izgradnji vrijednosti koje su osnova razvijenih i stabilnih ekonomija i društava.

5. OGRANIČENJA ISTRAŽIVANJA

Prvenstveno ograničenja, a potom slabosti i nedostaci provedenog istraživanja tiču se činjenice da je svako provođenje istraživanja u Bosni i Hercegovini finansijski i organizacijski izazov. Najvažniji elementi tih izazova kriju se u pogledu ograničenih mogućnosti izbora uzorka i dužine samog upitnika. Prilikom provođenja istraživanja provedene su mjere koje su obezbjedile anonimnost učesnicima istraživanja, mada su i dalje neki od ispitanica mogle imati dvojbu u

vezi sa diskreциjom. Uzorak koji se koristio u istraživanju je jedina opcija koja je mogla biti korištena: prigodan i neprobabilistički. Razlog za njegovo korištenje leži u činjenici da u Bosni i Hercegovini ne postoji javno dostupna evidencija preduzetnica. Uprkos tome nastojala se obezbjediti struktura koja je slična onima koje su se koristile u ranijim istraživanjima u drugim zemljama, a radi mogućnosti usporedbe dobijenih rezultata.

Dužina upitnika samo dijelom je uticala na spremnost potencijalnih ispitanica na učešće u istraživanju. Iako su pravljени brojni kompromisi (načini prikupljanja podataka i veličina i struktura uzorka), zbog ograničenosti resursa, učešće u istraživanju za sve ispitanice bilo je volonterski i bez nadoknade. Prema usmenim izjavama pojedinih ispitanica vrijeme potrebno za njegovo popunjavanje je jedna od slabosti istraživanja. Kako pitanje o utiscima vezano za samo istraživanje nije bilo uključeno u sam sadržaj upitnika, ne postoji podatak o broju ispitanica koji su stekli negativan utisak po ovom elementu istraživanja. Sa druge strane, postoji evidencija ispitanica koji su se veoma pozitivno opredjelili spram teme i cilja istraživanja, a nakon popunjavanja upitnika. Kao potencijalna slabost mogla bi se navesti i potencijalna potreba primjene dodatnih statističkih metoda sa ciljem detaljnije provjere povezanosti varijabli koje su se ispitivale. Ipak, imajući na umu postavljena istraživačka pitanja i postavljene hipoteze, obim analize koja je provedena uz primjenu korištenih metoda osigurala je jasne i nedvosmislene odgovore u odnosu na postavljene ciljeve istraživanja.

6. ZAKLJUČCI I PREPORUKE

Prema rezultatima provedenog istraživanja može se zaključiti da tranzicijski element konteksta preduzetnice percipiraju kao pozitivan faktor ukupnog okruženja, dok post-konfliktni dio konteksta (više od dvadeset godina nakon završetka rata) preduzetnice percipiraju kao negativan i ograničavajući faktor svoje uspješnosti. Nameće se jedan logičan zaključak koji se može sažeti kroz tvrdnju da sve dok god i ma koliko god dugo (pa i sada, dvadeset godina nakon završetka rata) preduzetnici i preduzetnice budu percipirali post-konfliktni kontekst Bosne i Hercegovine kao ograničavajući u svom djelovanju, a na način kako je on ocjenjen u njihovim odgovorima („Dešavanja iz proteklog rata još uvijek izazivaju veliku pažnju u BiH... Pomirenje unutar BiH je u potpunosti ostvareno“), preduzetništvo u Bosni i Hercegovini neće moći ostvariti svoj puni razvojni potencijal. Shodno rezultatima može se reći i da dok god se takav uticaj konteksta na uspješnost ne promjeni, pozitivan uticaj koje preduzetništvo, pa samim tim i žensko preduzetništvo može imati na ekonomske potencijale Bosne i

Hercegovine će biti suboptimalan na način kako to prikazuju rezultati u proteklom godinama (GEM World Report, 2016/17).

Svako ekonomsko djelovanje se može bolje razumjeti u svom istorijskom, vremenskom institucionalnom, prostornom i društvenom kontekstu (Low i MacMillan, 1988; Welter i Gartner, 2016). Kontekstualizacija preduzetništva u tom smislu je posebno važna (Welter 2011) jer pomaže da se razumije kada, kako i zašto se preduzetništvo događa – preduzetništvo se ne dešava u „vakumu“ odvojeno od konteksta (Gartner, 1985; Williams i Gurtoo 2016). Sa druge strane, kontekstualizacija preduzetništva nudi mogućnost (ili šansu) integracije za postojeće okvire i teorije preduzetništva, posebno jer oblasti preduzetništva nedostaje koherentan, objedinjujući okvir (Sarasvathy i Venkataraman, 2011) – istraživačima je kontekstualizacijom preduzetništva pružena mogućnost da „izaberu“ one kontekstualne varijable koje smatraju interesantnim za svoj istraživački fokus. U skladu sa navedenim istraživačkim preporukama provedena je kontekstualizacija istraživačkih pitanja vezana za žensko preduzetništvo u specifičnom kontekstu Bosne i Hercegovine.

Konačno, potrebno je da se vladine politike na svim nivoima unutar Bosne i Hercegovine usmjere na planiranje i realizaciju aktivnosti koje kreiraju pozitivan tranzicijski kontekst sa ciljem da se unaprijedi kapacitet preduzetničkih aktivnosti uopšteno a posebno aktivnosti preduzetnica. Preduzetničko porodično okruženje i društveni dinamizam preduzetnice je potrebno razvojno usmjeravati u kontekstu unapređenja onih komponenti koje, prema provedenom istraživanju, sa najvećim stepenom pozitivno utiču na poslovnu uspješnost preduzeća. S druge strane strane politike trebaju biti usmjerene na eliminaciju ili ublažavanje djelovanja najuticajnijih negativnih faktora post-konfliktnog okruženja na preduzetničke aktivnosti a posebno aktivnosti ženskog preduzetništva u Bosni i Hercegovini. Navedene aktivnosti vezane za kreiranje i implementaciju navedenih politika potrebno je realizirati kroz proces bliske saradnje nosilaca donošenja odluka vezanih za ekonomsku politiku i nosilaca procesa preduzetništva u Bosni i Hercegovini.

LITERATURA:

Knjige:

Boettke P. J. & Coyne C. J. (2006): *Entrepreneurial Behaviour and Institutions*, in Minniti M. (ed.), *Entrepreneurship: The Engine of Growth*, (1), pp. 119-134, Praeger Press, Westport, CT

- Butler J. E. (2003): *New perspectives on Women Entrepreneurs*, A Volume in Research in Entrepreneurship and Management, Infoagepub, Connecticut, USA
- Carter S. & Cannon T. (1992): *Women As Entrepreneurs*, London: Academic Press
- Čizmić E. & Crnković K (2012): *Strateško preduzetništvo - koncepcija paradigme budućnosti*, Ekonomski fakultet, Sarajevo, Bosna i Hercegovina.
- Čovo P. (2007): *Održivo preduzetništvo – žensko preduzetništvo*, Sveučilište u Zadru, Hrvatska.
- Fielden S. L. & Davidson M.J. (eds) (2005): *International Handbook of Women and Small Business Entrepreneurship*, Edward Elgar Publishing Inc, USA
- Fry F. L. (1992) *Entrepreneurship-A planning approach*: New York, West Publishing Company
- Gartner W.B. (1995), *Aspects of Organizational Emergence*, in Bull, J., Thomas, H., Willard G. (Eds.), *Entrepreneurship. Perspectives on Theory Building*, Oxford, pp. 67-86.
- Hisrich R. & Brush C.G. (1986): *The Women Entrepreneur: Starting, Financing and managing a Successful New Business*, Lexington Books, Lexington, M, USA.
- Kirzner I. M. (1973): *Competition and Entrepreneurship*, University of Chicago Press, Chicago and London
- Minniti M., Arenius P. & Langowitz N. (2005): *The 2004 Global Entrepreneurship Monitor Special Topic Report: Women in Entrepreneurship*. Babson Park, MA: Center for Women Leadership, Babson College.
- Parker S. C. (2009): *The Economics of Entrepreneurship*, Cambridge UK, Cambridge University Press
- Schumpeter J. A. (1934): *The theory of economic development*, Harvard University Press, Cambridge, MA.
- Schumpeter J. A. (1939): *Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process*, McGraw-Hill, London, UK.
- Schumpeter J. A. (1945): *The Future of Private Enterprise in the Face of Modern Socialistic Tendencies*," in Richard Swedberg (editor) (1991): *Joseph A. Schumpeter: The Economics and Sociology of Capitalism*, Princeton University Press, Princeton, USA
- Schumpeter J.A. (1961): *The Theory of Economic Development*. 3rd Edition, Oxford University Press, New York, USA
- Welter F. & Gartner W.B. (eds) (2016): *A Research Agenda for Entrepreneurship and Context*, Elgar Research Agendas, Edward Elgar Publishing, UK, MA, USA
- Welter F. (2005): *Entrepreneurial Behaviour in Differing Environments*, in Audretsch D.B., Grimm H. & Wessner C.W. (eds), *Local Heroes in the Global Village*, pp. 93-112, NY Springer
- Williams C.C. & Gurtoo A. (eds) (2016): *Routledge Handbook of Entrepreneurship in Developing Economies*, Routledge International Handbooks, Taylor and Francis

Članci:

- Bennet R. & Dann S. (2000): The changing experience of Australian female entrepreneurs. *Gender, Work and Organization*, 7 (2), pp. 75-83.
- Bird B. & Brush C. (2002): A Gendered Perspective on Organizational Creation, [Entrepreneurship Theory and Practice](#), 26(3), pp. 41-65.
- Bowen D. D. & Hirsch D. (1986): The female entrepreneur: A career development perspective, *Academy of management review*, 11(2), pp. 393-407.
- Brush C. G. (1992): Research on Women Business Owners: Past Trends, a New Perspective and Future Directions, *Entrepreneurship Theory and Practice*, 16(4), pp. 5-30.
- Collier P., Hoeffler A. & Soderborn M. (2008): Post-Conflict Risks, *Journal of Peace Research*, 45(4), pp. 461-478.
- Dubini P. (1989): The Influence of Motivations and Environment on Business Startups: Some Hints for Public Policies. *Journal of Business Venturing*, 4(1), pp. 11-26.
- Gartner W. B. (1985): A conceptual framework for describing the phenomenon of new venture creation, *Academy of Management Review*, 10(4), pp. 696-706.
- Gartner W.B. (1990): What are we talking about when we talk about entrepreneurship, *Journal of Business Venturing*, 5(1), pp. 15-28.
- Hirsch R. & Brush C. (1984): The Woman Entrepreneur: Management Skills and Business Problems, *Journal of Small Business Management*, 22(1), pp. 30-37.
- Hofer C. W. & Bygrave W.D. (1992): [Theorizing about entrepreneurship](#), *Entrepreneurship theory and Practice*, 16 (2), pp. 13-22.
- Hyrsky K. (1999): Entrepreneurial Metaphors and Concepts: An Exploratory Study, [International Small Business Journal](#), 18(1), pp. 13-34.
- Klapper L. F. & Parker S. C. (2011): Gender and the Business Environment for New Firm Creation, *World Bank Research Observer*, 26(2), pp. 237-257.
- Low M. B. & Macmillan I. C. (1988): Entrepreneurship: Past Research and Future Challenges, [Journal of Management](#) 14(2), pp. 139-161.
- Minniti M. (2009): Gender Issues in Entrepreneurship, *Foundations and Trends in Entrepreneurship*, 5(7-8), pp. 497-621.
- Neider L. (1987): A preliminary investigation of female entrepreneurs in Florida, *Journal of Small Business Management*, 25, pp. 22-29
- Ripsas S. (1998): Towards an interdisciplinary theory of entrepreneurship, *Small Business Economics*, 10(2), pp. 103-115.

- Sarasvathy S. & Venkataraman S. (2011): Entrepreneurship as Method: Open Questions for an Entrepreneurial Future, *Entrepreneurship Theory and Practice*, 35(1), p.p. 113–135.
- Shane S. & Venkataraman S. (2000): The promise of entrepreneurship as a field of research. *The Academy of Management Review* 25 (1), pp. 217–226.
- Shane S. (2000): Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, 11(4), 448–469.
- Šunje A. & Čizmić E. (2005): Preduzetništvo kao preduvjet ekonomskog razvoja – Entrepreneurship as a precondition of economic development, *Ekonomski fakultet Sarajevo, Zbornik radova*, br.25, str. 475-500.
- Venkataraman S. (1997): [The distinctive domain of entrepreneurship research](#), *Advances in entrepreneurship, firm emergence and growth*, 3 (1), 119-138.
- Welter F. (2011): Contextualizing entrepreneurship – conceptual challenges and ways forward, *Entrepreneurship: Theory and Practice*, 35(1), pp. 165-184.
- Wennekers S. & Thurik R. (1999): Linking Entrepreneurship and Economic Growth. *Small Business Economics* 13(1), pp. 27-56.
- Yadav V. & Unni J. (2016): Women entrepreneurship: Research review and future directions, *Journal of Global Entrepreneurship Research*, 6(12), pp.1-18.
- Zapalska A. M. (1997): A profile of women entrepreneurs and enterprises in Poland, *Journal of Small Business Management*, 35(4), pp. 76-82.

Materijali sa web-a:

GEM World Report, 2016/17

OECD (2004): Women's Entrepreneurship: Issues and Policies, 2nd OECD Conference of Ministers responsible for Small and Medium Sized Enterprises (SMEs) – Promoting Entrepreneurship and Innovative SME's in a Global Economy: Towards a more responsible and inclusive globalization, Istanbul, Turkey

Vlada Republike Hrvatske, Ministarstvo gospodarstva, rada i poduzetništva (2014): Strategija razvoja poduzetništva žena u Republici Hrvatskoj za razdoblje od 2014. do 2020. godine, Zagreb, Hrvatska

KEY FACTOR OF SUCESS OF WOMAN ENTERPRENEURSHIP IN CONTEXT OF TRANSITION AND POST-CONFLICT ENVIRONMENT IN BOSNIA AND HERZEGOVINA

Abstract

The importance of women's entrepreneurship in modern and contemporary societies has been growing very dynamically in recent decades. The aim of the paper is to explore the possibilities of applying good practices and experiences, as well as models of success of women entrepreneurship, taking into account the specificities of the Bosnian environment in the context of transitional and post-conflict dynamics. The research will test the perception of the transition and post-conflict environment with respect to the variation in individual factors affecting the performance of women's entrepreneurial-owned enterprises. The model of success of a company owned/co-owned by a woman entrepreneur which include individual characteristics of an entrepreneur (tradition of entrepreneurship in the family, education and business experience, social capital, motivation for entrepreneurship) and their impact on the success of enterprises in this paper is expanded by exploring the influence that social context has on motivation. The ways in which women entrepreneurs perceive social reality affect their motivation for entrepreneurship and the success of their enterprises, so that the perception of the environment as an opportunity has a positive effect on the motivation for entrepreneurship and indirectly increases the success of the enterprise, while the perception of the environment as a constraint has a negative impact on the motivation for entrepreneurship and reduces the indirect positive impacts on business performance.

Keywords: Strategic Entrepreneurship, Women's Entrepreneurship, Family Environment, Social Capital, Transition and Post-Conflict Environment.

JEL Clasification: L20, L26

**PREGLEDNI
NAUČNI RADOVI**

REVIEW PAPERS

IMPACT OF NON-PERFORMING LOANS ON THE BANKING SECTOR CAPITAL ADEQUACY, WITH THE PREDICTION OF THEIR MOVEMENTS

Kemal Kozarić

School of Economics and Business Sarajevo

Edina Zunic

Central Bank of Bosnia and Herzegovina

Abstract

This paper analyzes the impact of non-performing loans on Bosnia and Herzegovina banking sector financial stability. For that purposes Error Correction Model and Granger causation model were implemented. Results of Engle-Granger Error Correction model indicates on existence of long-term connection between banking sector financial stability and non-performing loans. Results of the Granger causality model indicates on causation of financial stability by non-performing loans and demonstrates short-term connection between observed variables. Based on these results, a prediction of non-performing loans movements was conducted. Results indicates that non-performing loans in Bosnia and Herzegovina banking sector will range between 0.5% and 16.41%. In order to determine the likelihood that non-performing loans at the level of Bosnia and Herzegovina banking sector will rise or fall, a Monte Carlo simulation was conducted. This simulation showed that it is much more likely that non-performing loans will decrease, than it will rise.

Key words: *non-performing loans, financial-stability, capital adequacy ratio, banking sector*

JEL: *G00, G2*

1. INTRODUCTION

Banking sector financial stability implies a condition where the system is able to absorb shocks without major distortions in its current and future functioning and without negative impacts on the entire economy. Increasing turbulence of financial market leads to strengthening of banking risks. In this environment making a profitable business has become very heavy and challenging business process. Financial literature and practice indicates on extremely high connection between non-performing loans and banking sector financial stability. The last financial crisis demonstrated the strength of the impact of non-performing loans and their ability to threaten the financial stability. Namely, a high share of non-performing loans leads to increase of provisions for potential losses, which lead to a lower bank performances and lower capital. As a result, the capital adequacy ratio decreases and financial stability is threatened.

Beside the fact that non-performing loans after 2016th tends to be lower, they are still in some countries with double digits. This puts pressure on the bank's capital and makes it difficult to manage the balance sheet. As consequence a capital adequacy ratio decline. According to Deloitte report (Deloitte, 2018), a significant sale of non-performing portfolio jet has not been recorded in Bosnia and Herzegovina, Ukraine and Albania. This aspect is important since it decreases non-performing loans and loosens pressure on bank capital. This is especially important for countries with high level of non-performing loans (greater than 10%). However, individual banks as well as countries are much more conscious of the importance of cleaning balance sheets from these bad loans in order to release capital for new lending. Following table represents NPL ratios for CEE⁶ countries for fourth quartal of 2017th.

TABLE 1: NPL RATIOS IN CEE COUNTRIES FOR Q4 2017

Country	Corporate NPL ratio (%)	Retail NPL ratio (%)	Total NPL ratio
Poland	8.2	6.1	6.8
Czech Republic	4.2	2.5	3.2
Slovakia	5.2	3.2	3.8
Hungary	3.3	7.5	5.3
Romania	11.4	5.7	6.4
Slovenia	5.3	2.6	3.9
Croatia	22.2	8.1	14
Bulgaria	12.5	7.4	10.6
Serbia	10.1	5.8	9.8
Ukraine	56.5	52.0	55.8

⁶ CEE- Central and Eastern Europe

BiH	12.3	7.5	9.5
Estonia	1.3	0.4	0.8
Latvia	2.5	3.3	2.9
Lithuania	5.0	2.8	3.9
Albania	16.9	7.6	14.1

Source: (Deloitte, 2018)

As we can see from above table Ukraine still has the greatest problems with non-performing loans. Bosnia and Herzegovina, in comparison with other CEE countries stands above average NPL ratio. Therefore, it is necessary to still work on this problem and solutions. In accordance with improvement in credit portfolio quality (lower non-performing loans ratio), Capital Adequacy Ratio has been also improved. According to Deloitte report (Deloitte, 2018) average capital adequacy ratio reached 17.4%, which is much more than requirements.

Since Bosnia and Herzegovina banking sector is mainly consisted of banks it is expected that problems in this part of the financial sector could potentially threaten financial stability of the entire financial sector. According to the fact that loans represents the greatest part of bank asset, their quality is one of the most meaningful determinants of stability and business performances.

High level of non-performing loans in the banking sector and rising tendency leads to increase of allocated assets for those loans and thus potential decrease in profitability and capital adequacy of single banks and for the entire banking sector. Therefore, banking sector financial stability is the greatest concern of regulatory authorities and other financial participants in Bosnia and Herzegovina.

According to financial stability reports of central banks, the greatest threat to banking sector financial stability are non-performing loans. Therefore, this paper analyzes the connection between non-performing loans and Bosnia and Herzegovina banking sector financial stability. In order to carry out this analysis and determine the strength of the link, based on existing practical and theoretical knowledge, the Error Correction Model of non-performing loans defines two variables: non-performing loans and financial stability of the banking sector. Variable non-performing loans represents share of non-performing loans in total loans and variable financial stability is measured by capital adequacy ratio (which represents ratio of capital and risk-weighted asset). In order to give additional contribution to this research, a prediction of intervals into which share of non-performing loans will move will be presented. Besides that, a Monte Carlo Simulation will be used in order to predict a probability that share of non-performing loans will rise/decline in the future.

2. LITERATURE REVIEW

In order to disclose problem of non-performing loans authors that are involved into this area have researched different causations and implications of this type of loans. Relationship between credit growth and asset quality in developing countries with various internal and external factors was then investigated. A slowdown in economic growth, a weakening of the exchange rate or terms of trade and rapid credit growth have been shown to be independently linked to higher levels of non-performing loans (De Bock & Demyanets, 2012). The following research focuses on non-performing loans in CESEE (Central Eastern Southerasten Europe) countries and their macroeconomic determinants. Specifically, non-performing loans have been shown to start rising immediately after the outbreak of the 2008 financial crisis, but sharp growth occurred a year later, when GDP contracted in most CESEE countries. Apart from these macroeconomic factors, the relatively high variability in non-performing loans indicates that there is a negligible contribution of bank-specific factors (Klein, 2013). The impact of pro-cyclicality in the euro area, the impact of Basel III on cyclicality and their reflection on non-performing loans were also examined. Compliance with Basel's new, more stringent requirements has been shown to reduce cyclicality and reduce the share of non-performing loans (Horvatova, 2013). Due the importance of banking sector in Croatia, financial stability of this sector during financial crisis was investigated. Specifically, the authors analyzed the effects of the financial crisis on stability of the banking sector through a series of banking sector indicators, namely: number of banks, banking intermediation, concentration, foreign ownership and liquidity. The analysis of the data shows that, despite exposure to the financial crisis, the Croatian banking sector has remained stable (Živko & Kandžija, 2013). A research conducted in Nigera banking sector showed that sound credit risk management and capital adequacy impacted positively on bank's financial performance with the exception of loans and advances which was found to have a negative impact on banks' profitability in the period under study. (Ogboi & Unuafe, 2013) Further, authors examine the strength of the banking market in CEE countries and the impact of the financial crisis. Three conclusions are made in the paper: the convergence of country development and market power in the pre-crisis period is noticeable, while the crisis eliminated this convergence; the characteristics of ownership of a particular bank strongly affect market power; asset quality and capitalization have a direct impact on the margin, both in the pre-crisis and crisis periods (Efthyvoulou & Yildirim, 2014). Research from Albania have showed that profitability indicators do not have any influence on CAR while NPL, has negative and significant impact on CAR in the Albanian banking system. The bank size has a positive

impact on CAR meaning that large banks have higher CAR (Shingjergji & Hyseni, 2015). Further, authors have showed that in Baltic countries, real economy responds to NPLs and that there are strong feedback effects from variables such as domestic credit to the private sector, GDP growth, unemployment and inflation to non-performing loans (Kjosevski & Petkovski, 2016). Following research demonstrated cointegration between macroeconomic factors and non-performing loans in selected Balkan countries. It was shown that macroeconomic factors do have an influence on non-performing loans, and that influence is a significant (Kozarić & Žunić, 2017). On the other hand, authors have investigated the relation between financial development and NPLs. It was proven that financial development, measured by foreign bank presence and financial intermediation, is positively associated with non-performing loans. (Ozili, 2019)

3. METHODOLOGY

For the purpose of this paper an annual data of Bosnia and Herzegovina banking sector for period 2006-2018 was used. Financial stability report was used as data source. In order to investigate connection between non-performing loans and capital adequacy ratio (as one measure of banking sector financial stability) cointegration analysis was applied. If two variables have the same trend and similar dynamics over time, we can conclude that there is some relationship that does not allow the variables to have different movements. If such variables are nonstationary and integrated of order one, then they are cointegrated. Given that the subject of analysis is macroeconomic data, which is usually non-stationary (Nelson & Plosser, 1982) and which as such can give false regression results, stationarity was tested at the beginning of the cointegration analysis. For this purpose, the Augmented Dickey Fuller Test (ADF) based on t-parameter parameterisation in the following regression model was conducted (Bahovec & Erjavec, 2009, p.264):

$$\Delta Y_t = \alpha_0 + \sum_{i=1}^{p-1} \beta_i \Delta Y_{t-i} + \gamma Y_{t-1} + \alpha_2 t + \varepsilon_t, \quad (1)$$

Wherein Y represents observed variable, Δ represents first difference operator, t represents time trend, ε_t represents random error, α_0 represents constant and $\alpha_2 t$ represents trend component. If the value of parameter γ is equal to zero for time series Y_t , then it can be concluded that it has unit root and its non-stationary time series. At the beginning of cointegration analysis it's necessary to resolve problem of optimal time lags number, since analysis conducted below is very sensitive to the choice of the number of time lags. Therefore, common criteria were used to select the optimum number of time lags: logarithmic probability function, probability percentage, final error prediction, Aikake criterion, Hannan-

Quinn criterion and Schwarz-Bayesian criterion. After selection of the optimal number of time lags, Johansen cointegration test was conducted. The basis of the Johansen procedure is the Vector Autoregression Model (VAR), defined by n variables and the length of time lags k , and is shown as follows (Bahovec & Erjavec, 2009, p.376):

$$Z_t = A_1 Z_{t-1} + A_2 Z_{t-2} + \dots + A_k Z_{t-k} + e_t \quad (2)$$

Wherein Z_t represents (2×1) vector of variables integrated of order 1, while e_t represents vector of normally and independently distributed model errors. Existence of r cointegrated vectors between elements of vector Z implies that Π (parameters matrix 2×2) is at range r ($0 < r < 2$). In order to determine the number of cointegration vectors, Johansen has developed two tests: eigenvalue matrix trace test (λ_{trace}) and the maximum eigenvalue test (test λ_{max}). If there is a difference in the results of these two tests, it is common practice to take the results of the second test as relevant, since it is more relevant in smaller samples. Since this is a two-variable model whose relationship is tested, the Engle-Granger method was used. Using this method, the model would look as follows (Bahovec & Erjavec, 2009, p.333):

$$\Delta Y_t = \lambda \Delta X_t + \pi (Y_{t-1} - \hat{\alpha} - \hat{\beta} X_{t-1}) + a_t = \lambda \Delta X_t + \pi \hat{\epsilon}_{t-1} + a_t, \quad (3)$$

Wherein a_t ($t = 1, \dots, n$) represents innovation process, $\lambda \Delta X_t$ represents information about short-term dynamics, $\hat{\epsilon}_{t-1}$ represents information about long-term dynamics and $\hat{\epsilon}_{t-1}$ represents error correction factor. Speed of adjustment to equilibrium is measured by parameter π . In order to consider model as a good one, a sign before parameter of adjustment should be negative and it should be significant. The value of the adjustment indicator is of crucial interest and should be less than one, which is evidence that it is a stable system, as well as the long-term relationship of cointegrated variables.

The next step in modeling and exploring the relationship between the variables defined by this model is to investigate the possible joint movements of non-performing loans and financial stability, as well as the possibility that they will move together until a stable long-term equilibrium is found by following so-called Granger's model. Therefore, these assumptions were tested on collected data through the Granger causality model as follows (Engle & Granger, 1987, p.274):

$$\Delta CAR_t = \alpha_1 + \sum_{i=1}^l \beta_{1i} \Delta CAR_{t-1} + \sum_{i=1}^m \gamma_{1i} \Delta NPL_{t-1} + \sum_{i=1}^r \theta_{1i} ECT_{r,t-1} + \xi_{1t}, \quad (4)$$

Wherein CAR represents Capital adequacy ratio as a measure of banking sector financial stability, Δ represents first difference operator, ECT represents error

correction term and ξ_{itrs} ($i=1,2,3$) represent serial uncorrelated random errors with mean zero. This model will test CAR's causality as an indicator of financial stability by the share of non-performing loans in the banking sector of Bosnia and Herzegovina. The consequence of the connections described by the model above is that ΔCAR_t has to be caused by ECT_{t-1} which is his function. By the ECT Error correction model gives additional possibility to Granger causality model. This model could be represented or by statistically significant time lag ECT (by t-test) or by application of F or Wald χ^2 test on sum of time lags of each of independent variables (β i γ). The non-significance of both tests in the error correction model would indicate the endogeneity of the dependent variable.

Results of Error Correction Model will serve as a basis for prediction of non-performing loans movements. Based on the identified relationships between variables and their historical values, it will be predicted in which intervals non-performing loans will move over the next five years. During the calculation of these intervals it is necessary to take into consideration variability both the mean and standard deviation of variable for which interval prediction is made. Assuming a normal distribution, calculation of interval prediction with statistically significance 95% shall be as follows (Akritas, 2014, p.12):

$$\left(\underline{X} - t_{\frac{\alpha}{2}, n-1} \delta \sqrt{1 + \frac{1}{n}}, \underline{X} + t_{\frac{\alpha}{2}, n-1} \delta \sqrt{1 + \frac{1}{n}} \right). \quad (5)$$

Variability \underline{X} is calculated with $\frac{1}{n}$, while the variability of the standard deviation was calculated using the t-percentile. In order to give an additional contribution to this study, a Monte Carlo simulation of non-performing loans have been applied. This simulation is a stochastic simulation method, whose algorithm, using random or quasi-random numbers and a large number of calculations and repetitions, predicts the behavior of complex mathematical models.

In order to calculate the value of some scalar magnitude m , it starts with a random variable X whose mathematical expectation is equal to m . By determining N independent values of x_1, x_2, \dots, x_n random variables, for a value of size m , arithmetic mean of the values x_1, x_2, \dots, x_n can be presented as follows:

$$m = \frac{x_1 + x_2 + \dots + x_n}{N}. \quad (6)$$

First requirement of stochastic model is the ability to generate random variable values. Student t distribution has been used in order to calculate confidence intervals and obtained tests for mean of normal distribution. The probability density function in this case takes the following form (McLeish, 2004):

$$f(x) = \frac{\Gamma\left(\frac{v+1}{2}\right)}{\sqrt{v\pi}\Gamma\left(\frac{v}{2}\right)} \left(1 + \frac{x^2}{v}\right)^{-\frac{(v+1)}{2}}, -\infty < x < \infty, \quad (7)$$

Wherein $v=1$ follows Cauchy distribution. After determining the probability density function, it is possible to generate a random variable X_{n+1} . Let's suppose that $F(x|i)$ is cumulative distribution function $P(X_{n+1} \cdot x | X_n = i)$ and that inverse function is represented by $F^{-1}(y|i)$ and that random variable X_{n+1} , which is conditioned with variable X_n , is generated. If all above is satisfied it possible to use inverse transformation $X_{n+1}=F^{-1}$ applied on random variable U_{n+1} , where U can have a value between zero and one. If the value of X_t , was generated based on the value of X_s , $s < t$, this can be done as follows (McLeish, 2004):

$$X_t = F^{-1}(X_{t-1}) = F^{-1}(F^{-1}(U_{t-2}|X_{t-2})) = F^{-1}\left(F^{-1}(\dots F^{-1}(i))\right) = F_s^t(X_s). \quad (8)$$

Advantage of this model is that result gives all possible outcomes as well as probabilities of realization. Algorithm functions as follows: first, the business process is mathematically modeled, then the variables that want to be predicted are determined, then a probability density function is set to describe the frequency with which the variables take on their values; assigns a random value derived from the probability density function in each iteration, calculates output values and saves results. These steps are repeated n times in order to finally be able to statistically analyze simulation results.

4. RESULTS

Vector autoregressive models represent models which proved to be the best in describing the dynamic association of stationary variables. Therefore, the first step in time series analysis is to test the existence of the unit root of each of the variables included in the model. If two variables have the same long-term trend or if they have similar dynamics through time, we can conclude that there is some force that in each moment doesn't allow variables to wander off from each other. If two variables are non-stationary and each of them contains a trend, i.e. they are integrated in order one and behave similarly over time (containing a common stochastic trend), we say that they are cointegrated. Among the cointegrated variables, there is a long-run equilibrium represented by the cointegration vector. Since only two variables are analyzed for cointegration, the Engle-Granger method was used to analyze cointegration based on model residuals. As a first step in the implementation of this method, the stationarity of the variables included in this model through the Augmented Dickey Fuller (ADF) test was

checked, namely: NPL (non-performing loans) and CAR (capital adequacy). Table 1. present Augmented Dickey Fuller Unit Root Test results for variables included in model, for their basic values, as well as for their first differences. The results of the unit root test applied to the basic values of the variables indicate that these are non-stationary variables containing the unit root. However, after reducing the variables to their first difference, hypothesis of existence of stationarity has been proven, as well as that series are integrated of order one.

TABLE 2: AUGMENTED DICKEY FULLER UNIT ROOT TEST RESULTS

Variables	ADF statistical value	Confidence level		
		0.01	0.05	0.10
NPL	(-) 2.069	(-) 3.750	(-) 3.000	(-) 2.630
CAR	(-) 2.967	(-) 3.750	(-) 3.600	(-) 3.240
D.NPL	(-) 6.003	(-) 3.750	(-) 3.000	(-) 2.630
D.CAR	(-) 5.143	(-) 3.750	(-) 3.000	(-) 2.630

In order to determine what is the optimal number of time lags that should be used in cointegration analysis, the usual criteria are used to select the number of time lags that include: logarithmic probability function, percentage probability, final error prediction, Aikake criterion, Hannan-Quinn criterion. Schwarz-Bayesian criterion. All criteria showed that the optimal number of time lags for this data and this model was three. The results of this test are presented in the following table.

TABLE 3: SELECTION OF NUMBER OF TIME LAGS

* Indicates on optimal number of time lags

Time lag	LL ⁷	LR ⁸	Df	P	FPE ⁹	AIC ¹⁰	HQIC ¹¹	SBC ¹²
0	-60.480				110.658	10.382	10.364	10.469
1	-50.097	30.767	4	0.000	19.521	8.631	8.577	8.891
2	-47.006	26.817	4	0.019	17.995	8.660	8.481	8.705
3	-38.284	17.444*	4	0.002	13.764*	8.044*	7.919*	8.652*

The next step in conducting the cointegration analysis using the Engle-Granger method in two steps is to test the existence of a unit root of the residual of the

⁷LL - log likelihood function

⁸LR - likelihood ratio

⁹ Time lag selection criterion according to FPE - Final Prediction Error

¹⁰Time lag selection criterion according to AIC - Akaike's Information Criterion

¹¹Time lag selection criterion according to HQIC - Hannan-Quinn Information Criterion

¹²Time lag selection criterion according to SBC - Schwarz – Bayesian Criterion

regression model. Following table presents results of Engle-Granger test by usage ADF unit root test. Results indicates that regression model residuals are not stationary at level, but they are at their first differences. Therefore, it can be concluded that this is a stable long-term connection.

TABLE 4: RESULTS OF ENGLE-GRANGER COINTEGRATION TEST OF RESIDUALS BY ADF UNIT ROOT TEST

	ADF statistical value	Confidence level according to Engle-Granger		
		0.01	0.05	0.10
Residual	(-) 2.917	(-) 4.04	(-) 3.45	(-) 3.15
D.Residual	(-) 3.468	(-) 4.04	(-) 3.45	(-) 3.15

Results of Engle-Granger cointegration test by ADF unit root test for regression model residuals stationarity indicates on existence of cointegration between these model residuals. To determine optimal number of residual time lags that should be used in cointegration analysis, usual criteria were used. All criteria showed that the optimal number of time lags, both for the variables and for the residuals of this model, is three. The results of this test are presented in the following table.

TABLE 5: SELECTION OF THE NUMBER OF RESIDUAL TIME LAGS

Time lag	LL	LR	df	P	FPE	AIC	HQIC	SBIC
0	-13.0686				0.7562	2.5579	2.5351	2.5940
1	-7.8498	10.438	1	0.001	0.3524	1.7908	1.7452	1.8632
2	-5.6504	4.3988	1	0.036	0.2862	1.5728	1.5043	1.6813
3	2.5708	16.442*	1	0.000	0.0786*	0.2599*	0.1687*	0.4046*

* Indicates on optimal number of time lags

Before implementing the Engle-Granger Error correction model, it is necessary to test some key assumptions of this model, which are that residuals are uncorrelated, that there is no heteroskedasticity, and that residuals follow a normal distribution. Testing of this assumptions has been conducted by Breusch-Godfrey LM test of serial correlations, ARCH-LM test of heteroskedasticity and Jarque-Bera test of normality. Results of those tests are shown in the following table and they indicate that residuals follow a normal distribution, that there isn't a problem of heteroskedasticity as well as there isn't a problem with serial correlation of residuals.

TABLE 6: RESULTS OF RESIDUAL ASSUMPTIONS

Test	Statistical value of test	p	Conclusion
Jarque-Bera	1.314	0.8590	Normal distribution
ARCH-LM	0.017	0.8962	No heteroskedasticity
Breusch-Godfrey LM test	82.94736	0.0000	No serial correlation

Cointegration relationship between financial stability measured by banking sector capital adequacy rate and share of non-performing loans, had been analyzed by Johansen cointegration test. Following table presents results of this test.

TABLE 7: JOHANSEN COINTEGRATION TEST RESULTS

r (the number of cointegration vectors assumed in H_0)	Statistical value of the eigenvalue matrix trace test ¹³	Confidence level 95%
0	177.6118	15.41
1	3.3991*	3.76
r (the number of cointegration vectors assumed in H_0)	Statistical value of the eigenvalue matrix trace test ¹⁴	Confidence level 95%
0	174.2128	14.07
1	3.991	3.76

Eigenvalue matrix trace test (λ_{trace}) and maximum eigenvalue test (λ_{max}) indicates on existence of at least one cointegration vector. Therefore, the null hypothesis of the absence of a cointegration vector was rejected, since it was determined that there was one cointegration vector, at a significance level of 95%. Also, we can't reject null hypothesis about the existence of more than one cointegration vector, since both tests indicates on existence of at least one cointegration vector. Based on all above, we can conclude that there is one cointegration vector between non-performing loans and financial stability that causes long-term dependence of these variables in the banking sector of Bosnia and Herzegovina. These results, in fact, prove that financial stability depends on the share of non-performing loans in the total loans of the banking sector. All this leads to conclusion that non-performing loans are main source of systematic risk as well as they can threaten financial stability of entire banking sector. Therefore, this cointegration in the future should be specially monitored and analyzed by regulatory authorities responsible for maintenance of financial stability. In order to test whether there is autocorrelation problem, Lagrange Multiplier test was conducted.

¹³ Testing the null hypothesis that the number of cointegration vectors is less than or equal to r.

¹⁴ Testing the null hypothesis that the number of cointegration vectors is equal to r, while the alternative hypothesis assumes that the number of cointegration vectors is equal to r + 1.

TABLE 8: LAGRANGE MULTIPLIER TEST

Time lag	χ^2	df	p
1	9.3431	4	0.05307
2	4.4976	4	0.34283

Since the probabilities in both time lags are greater than the critical value of 0.05, we can reject the null hypothesis that there is autocorrelation in the model and accept the alternative that there is no autocorrelation in both time lags. After this assumption was satisfied, Engle-Granger error correction model was implemented. Summary results are presented in the following table.

TABLE 9: SUMMARY RESULTS OF THE ENGLE-GRANGER ERROR CORRECTION MODEL

	Coefficient	t	p
Constant	1.5089	15.9256*	0.0000
D.CAR _{t-1}	0.950	1.9242*	0.0493
D.NPL _t	0.8592	2.52*	0.0360
D.NPL _{t-1}	0.7151	2.57*	0.0300
Residual	-0.2985	-3.2108*	0.0021
R ²	0.7718		
Adjusted R ²	0.7558		

* Confidence level 95%.

Results of Engle-Granger Error Correction model indicates that residual is significant with statistical significance of 95% and with speed of adjustment to equilibrium 29,85%. This means that the financial stability of the banking sector adjusts for 29.85% of previous years' deviations from the equilibrium level to the equilibrium level, with changes in non-performing loans. This indicates that it is a stable system with a satisfactory speed of adjustment to the equilibrium level. Variables that are included in model, as well as their time lags, are statistically significant and contribute to the speed of adjusting financial stability to changing non-performing loans as well as the stability of the model itself. Time lag of financial stability is significant with coefficient value of 0,950, non-performing loans are also significant with coefficient value of 0,8592 as well as time lag of non-performing loans with coefficient value of 0,7151. Also, it could be concluded that this is a good model, since it explains 77,18% of changes in the observed variable (financial stability). All listed above indicates on significant relationship of these two variables in banking sector of Bosnia and Herzegovina. Therefore, it is necessary to adequate monitor and control non-performing loans. It is also important that capital adequacy is controlled more comprehensively, without focusing on the pure formality of meeting the statutory and Basel standards prescribed criteria.

In order to analyze long-term causation between financial stability and non-performing loans, Wald test (χ^2) was obtained.

TABLE 10: RESULTS OF THE GRANGER CAUSALITY MODEL

Dependent variable	Independent variable	χ^2	df	p
CAR	NPL	10.457	3	0.015

Results of the Granger causality model listed in the table above indicates on causation of financial stability by non-performing loans. These results provide further confirmation of the previous results concerning the evidence of the long-term correlation of the variables. Thus, this causality model confirmed the existence of both short-term correlation, with long-term correlation previously demonstrated. Therefore, management and regulatory authorities should constantly monitor the movement of these indicators and analyze their short and long-term correlation.

Based on identified relationships between non-performing loans and banking sector financial stability a prediction of the intervals at which non-performing loans at the banking sector of Bosnia and Herzegovina will move over the next five years has been made. The results of Model Error correction variables and historical values of the basis for prediction. The following table provides a prediction of the intervals at which non-performing loans will move.

TABLE 11: PREDICTED INTERVALS FOR NON-PERFORMING LOANS OF THE BANKING SECTOR OF BOSNIA AND HERZEGOVINA

	Predicted mean value (%)	Predicted minimum value (%)	Predicted maximum value (%)	Predicted standard deviation (%)
Lower interval limit	0.0164	0.0050	0.0316	0.0103
Upper interval limit	0.0776	0.0621	0.1641	0.0281

Non-performing loans in Bosnia and Herzegovina banking sector are projected to range between 0,5% and 16,41%. The projected minimum values of non-performing loans range between 0,5% and 6,21%. On the other hand, the projected maximum value of non-performing ranges between 3,16% and 16,41%. Looking at the average predicted value, this indicator should range between 1,64% and 7,76%. The significant gap between the predicted maximum and minimum value of non-performing loans at the banking sector level is a

consequence of already significant differences in the level of non-performing loans at individual banks. Namely, according to Central bank Financial stability report¹⁵ for 2018th, share of non-performing loans in four banks that have the greatest problem with non-performing loans is more than 20%. So, these banks are generators of so high maximum predicted value, regardless of low share of non-performing loans at banking sector level.

At the end of this part of the analysis, in order to determine the likelihood that non-performing loans at the level of Bosnia and Herzegovina banking sector will rise or fall, a Monte Carlo simulation was conducted. 1.141 iterations were used to simulate the level of non-performing loans. The basis of these iterations are: random value generation, previously identified relationships between variables using the Error Correction Model and their historical values. In this way, the probability that non-performing loans at the level of the banking sector of Bosnia and Herzegovina will be higher or lower than current level of non-performing loans (8,77%)¹⁰ is calculated. Following table presents those results.

TABLE 12: MONTE CARLO SIMULATION RESULTS FOR THE BANKING SECTOR OF BOSNIA AND HERZEGOVINA

	(%)
Probability that non-performing loans in the banking sector will be higher than 8.77%	0.1155
Probability that non-performing loans in the banking sector will be lower than 8.77%	0.8845

Monte Carlo simulation showed that the probability that non-performing loans at level of banking sector of Bosnia and Herzegovina will be higher than the current average of the banking sector is 11.55%. On the other hand, probability that non-performing loans will be higher than current average is 88.45%. This simulation showed that it's much more likely that non-performing loans will decrease, than it will rise.

5. CONCLUSION

Long run connection between non-performing loans and banking sector financial stability is of the greatest importance. That connection indicates on important aspect that could lead to problems not only in banking, but also in the entire financial sector. Past global financial crisis has caused disorder in a majority of big world countries with huge spillover effects. Bosnia and Herzegovina as one of

¹⁵ <https://cbbh.ba/Content/Archive/575>

developing countries that was affected by the crisis through the spillover effect.. Therefore, it was justified to researched connection between non-performing loans and financial stability in Bosnia and Herzegovina banking sector. Research results indicates to existence of significant and long-term correlation between non-performing loans and financial stability. Also, it was shown that financial stability relatively fast converge to long-term equilibrium, as well as this is a good model that explains a significant part of changes in the banking sector financial stability. It can be concluded that non-performing loans are main source of systematic risk and that they can threaten financial stability of entire banking sector. Therefore, cointegration of these variables in the future should be specifically monitored and analyzed by institutions responsible for maintaining financial stability. Proven long-term relationship between non-performing loans and the financial stability of the banking sector is of great importance, since it points to an important aspect that can lead to problems not only in the banking but also in entire Bosnia and Herzegovina financial system. Each bank individually and its non-performing loans should be monitored, since a large number of banks with individually smaller non-performing loans in their portfolios can summarize a significant share at the banking sector level, which can ultimately lead to financial stability problems. Besides modeling of relation between non-performing loans and financial stability, this paper aimed to predict potential movements of non-performing loans in the next five years. Thus, non-performing loans in Bosnia and Herzegovina banking sector are projected to range between 0.5% and 16.41%. Monte Carlo simulation is used to identify whether non-performing loans will be higher or lower from current share. This simulation showed that it is much more likely that non-performing loans will decrease, than it will rise. These results indicate on improvement in banking sector loan quality and consequently improvement of Capital Adequacy Ratio. Thus, banks should work on further improvement of loan portfolio in order to improve Capital Adequacy Ratio as well. Regarding these results it is scientific and practical justified to further research other determinants of NPL-s as well as other potential impact factors of Capital Adequacy Ratio, such as macroeconomic variables.

REFERENCES

- De Bock, R., & Demyanets, A. (2012). Bank asset quality in emerging markets: determinants and spillovers. *IMF working paper*.
- Deloitte. (2018). *What is beyond the peak? CEE loan market stil offer new oportunities*
- Espinoza, R., & Prasad, A. (2010). Nonperforming loans in the GCC banking system and their macroeconomic effects. *IMF working paper*.

- Efthymoulou, G., & Yildirim, C. (2014). Market power in CEE banking sectors and impact of the global financial crisis. *Journal of Banking & Finance*, 11-27.
- Horvatova, E. (2013). Analysis of the problem of pro-cyclicality in the eurozone and pro-cyclicality solutions in Basel III. *European financial system*.
- Kjosevski, J., & Petkovski, M. (2016). Non-performing loans in Baltic States: determinants and macroeconomic effects. *Baltic Journal of Economics*, 25-44.
- Klein, N. (2013). Non-performing loans in CESEE: Determinants and impact on macroeconomic performances. *IMF Working paper*.
- Kozarić, K. & Žunić, E. (2017). Cointegration Analysis of Non-performing Loans and Macroeconomic Conditions. *Finance in Central and Southeastern Europe*, 89-102.
- Ozili, P. K. (2019). Non-performing loans and financial development: new evidence. *Journal of Risk Finance*, 59-81.
- Ogboi, C., & Unuafé, O. (2013). *sound credit risk management and capital adequacy impacted positively on bank's financial performance with the exception of loans and advances which was found to have a negative impact on banks' profitability in the period under study*. *Journal of Emerging Issues in Economics, Finance and Banking*.
- Shingjergji, A., & Hyseni, M. (2015). *The determinants of the capital adequacy ratio in the albanian banking system during 2007 - 2014*. *International Journal of Economic, Commerce and Management*.
- Živko, I., & Kandžija, T. (2013). Impact of financial crisis on banking sector stability in Republic Croatia. *Poslovna izvrsnost*.
- (2019). *Financial Stability Report 2018*. Sarajevo: Central bank of Bosnia and Herzegovina. <https://cbbh.ba/Content/Archive/575>

UTICAJ NEKVALITETNIH KREDITA NA FINANSIJSKU STABILNOST BANKARSKOG SEKTORA SA PREDVIĐANJEM NJIHOVOG KRETANJA

Rezime

Ovaj rad analizira uticaj nekvalitetnih kredita na finansijsku stabilnost bankarskog sektora Bosne i Hercegovine. U tu svrhu korišteni su Model korekcije greške i Grangerov model uzročnosti. Rezultati modela korekcije greške upućuju na postojanje dugoročne zavisnosti između nekvalitetnih kredita i finansijske stabilnosti. Rezultati Grangerovog modela uzročnosti ukazuju na postojanje zavisnosti finansijske stabilnosti bankarskog sektora od nekvalitetnih kredita potvrđujući i kratkoročnu zavisnost između analiziranih varijabli. Na osnovu navedenih rezultata izvršeno je predviđanje kretanja nekvalitetnih kredita. Rezultati ovog predviđanja pokazuju da će se nekvalitetni krediti kretati između 0.5% i 16.41%. Kako bi se utvrdila vjerovatnoća da će nekvalitetni krediti u budućnosti rasti/padati, primjenjena je Monte Carlo simulacija. Rezultati iste pokazuju da je puno veća vjerovatnoća da će ovi krediti u budućnosti padati, nego da će rasti.

Ključne riječi: nekvalitetni krediti, finansijska stabilnost, adekvatnost kapitala, bankarski sector

JEL classification: G00, G2

CHANGE MANAGEMENT IN TOURISM: THE CASE OF NORTH MACEDONIA

Dimitar Kovachevski

School of Business Economics and Management,
University American College Skopje

Snezana Hristova

School of Business Economics and Management,
University American College Skopje

Ana Tomovska Misoska

School of Business Economics and Management,
University American College Skopje

Abstract

The main objective of this paper is to discuss and analyze the change management process, more specifically in the tourism sector and to examine the case of the tourist agencies in North Macedonia as to whether they are following the modern industry trends. For that purpose, we made extensive literature review and conducted empirical research among the tourist agencies based in North Macedonia. Most important emphasis is on the change management in general and the change management in tourism. The literature review discusses the recent developments in change management and the most commonly used methodologies applicable to the tourism sector. The conducted empirical research answers the questions whether the tourist agencies in North Macedonia have adopted and implemented the change management and whether they have adapted their management, organizational structure and functional capabilities to the changing customer needs, wants and business environment. The paper analysis different managerial frameworks and the research confirms that when agencies are utilizing structured change management they report improvement of their operating results and market position.

Key words: *Change management, tourism, tourist agency, North Macedonia, organizational model*

JEL Classification: *L20, L21, L22*

INTRODUCTION

Organizations and societies often face with pressures for change, which are both internal and external in nature. External pressures include increasing globalization, communications explosion, political pressures, economic turndowns which may include oil prices, and others. While internal pressures encompasses the increasing level of education, improving socio-economic status, the desire to live a better quality of life, and others (Shivappa, 2015). This societal changes influence changes in the tourist demand characterized by constant changes of the tourist needs and motives, which influences the need to adapt tourist offers.

North Macedonia, went through a dramatic system transition from 1991 to 1998, affecting all sectors and more specifically it influenced change of ownership of the tourist organizations, the state-owned companies were replaced by privately-owned operating on a free market. The changes in this sector are reflected as well in the fact that in 1989 there were only 3 registered travel agencies in the country, while 2 years later the number of travel agencies in North Macedonia reached 198. Most of them were formed without sufficient know-how, there is still no strict categorization of tourist agencies, and it can be noted that there is insignificant horizontal integration and very low level of vertical integration in the sector.

Given the changing environment and customer needs it is of utmost importance structured change management process in the tourist agencies that can address this changes and related opportunities. For North Macedonia as a tourist destination that wants to leverage economic benefits from tourism, it is important to attract foreign tourists, but at the same time to create strategy for keeping domestic tourists and thus their higher income to be spent in Macedonian tourist capacities and not abroad. Given the changed customer preferences, North Macedonia should not focus on re-developing the massive type of tourism, instead it should follow the new trends in the tourism market and direct its tourism products towards the alternative and adventurous types of tourism, according it's natural landmarks. Tourism related firms and destinations lose their competitiveness and enter in a vicious cycle of decreasing profitability, shrinking investments and low competitiveness if they do not constantly adapt their structure to the new market requirements, to the technological developments and to the environment. Structured change management is therefore necessary. (Keller & Bieger, *Managing Change in Tourism*, 2010).

Tourist agencies as the most important intermediary in this process need to change towards adoption of marketing capabilities that can offer the right tourist products with proper promotional activities and together with the other players in the industry create competitive tourist offers.

The main goal of this paper is to generate better understanding of the managerial frameworks that help tourist businesses to implement effective change management practices in the world and in Macedonia. We provided a detailed literature review of the change management concept and analyzed the change management awareness and acceptance in the travel agencies in North Macedonia through empirical research. The analysis show that the change management process in our companies is starting to be implemented with focus on improving functional and organizational capabilities of the agencies.

1. CHANGE MANAGEMENT DEFINED

Change is inevitable in tourism industry nowadays. Political instabilities, technology advancements, changing customer tastes, globalization, and cultural changes are among the factors constantly forcing tourist organizations to change. Leaders in this sector realize the importance of change management in the change process.

Change management refers to the adoption of an idea, procedure, process or behavior that is new to an organization (Pierce & Delbecq, 1977). Moran and Brightman (2001) define the change management as process of continually renewing an organization's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers. Burnes (2000) depicted that change is a multi-level, cross-organizational process that unveils a disorganized and incompetent trend over a period of time and comprises a series of interlocking projects. He also points that organisations that effectively manage change have a greater advantage over their competitors. However, according to Stewart and Kringas (2003), 'change management, like 'change', is a difficult term to define. Struckman and Yammarino (2003) consider change as a process or an action. They define organizational change as "a managed system, process and/or behavioral response over time to a trigger event". Prosci, the world leader in benchmarking research and change management products comes with a definition that change management is structured process and set of tools which are combined under one application which is leading the people's side of change in order to achieve some desired outcome or results (What is Change Management?, n.d.) . Robbins (2003) defines change as making things different.

Garber (2013) mentioned that change is inevitable in the workplace, so the role of the manager is to embrace the change by making the transition process easier. It can be concluded that change management becomes an inevitable process and refers to a proactive approach about how change is treated within an organization.

Many scholars have posed that change management can be applied on two main levels. According to Hiatt and Creasey (2012), the basic level is individual change management, which includes managers coaching to help their employees through change, holding focus conversations with employees, especially resistant ones, determining diagnose gaps in the program of managing change for each department, and identifying corrective actions which are based on desired results. What is required here is individuals to be managed with support and care to facilitate change successfully. Besides teaching them good tools and techniques, it is also crucial the understanding their roles through the change process (Kunze et al., 2013). The other level entitles to organizational change management defined as “the manager’s perspective from the top looking down in the organization”. (Mou, 2013) Herewith, the individual change management process should help the organization to face with needed change easily and successfully. It includes organizational tools like communications, and training the overall culture of the organization.

In some senses, the fundamental key for the change agent to navigate a team through uncertainty is to recognize the distinguishing characteristics of change management. To some extent, it is a process analogous to a temporary operation. Managerial implications for organizational change seem to restructure and to redefine operational performance (Kale, 2005). Some scholars (Kanter, Stein, & Jick, 1992) argue that leaders may function as change agents; they are the individuals responsible for change strategy and implementation. However, it is noted that although the responsibility for managing change does not fall on the employees their responsibility is to give 100% and do their best. The responsibility for managing change falls primarily to the management team and the managers. They are also faced with the fact that people in the organization must be involved in the change management process, since if the organization or the management team imposes these changes on the employees there will be difficulties for them to understand.

As organizational changes have become more frequent as a necessity for survival, the resistance of employees in this sector has become an important

human resources management function and a priority for top management to increase chances of success of different change projects (Tang and Gao, 2012). However, managing employees' resistance during organizational change requires an effective type of change management processes (Jansson, 2013). In particular, communications from the right entity in the organization help improve the employees' response to organizational change (Kotter and Schilesinger, 2008)

2. CHANGE MANAGEMENT MODELS

As stated above, the main goal of this paper is to generate better understanding of the managerial frameworks that help tourist businesses to implement effective change management practices. In the literature, there are many change management frameworks available that are conceptual and help companies to implement effective change management practices. In this section, will be presented some managerial frameworks for the implementation of change management that can be applicable in the tourism sector.

The ADKAR model for managing change stands for awareness of employees, their desire to change, their knowledge about change, ability to change, and reinforcement to keep change in place. This model can help managers to determine where their employees are in the change process.

The Lewin's Model of Change perceives the change as the process which keeps the forces that affect the behavior of the system stable (Duffy, 1996). The change process according to Lewin's model of change includes three steps: unfreezing the status quo, then changing to the desired future state, and refreezing the new state (Vakery and Antonio, 2010).

Kotter (1996) has also presented a change management model as a result of studying change management practices in more than hundred organizations. Kotter's model concentrates on making change occur; highlighting the importance of the feeling about the necessity of change in organization, and highlighting the need of effective communication through change process (Mou, 2013; Cameron and Green, 2004). In his model, the eight steps of the change process are: creating urgency as the most important step towards implementing the change strategy, forming a powerful coalition in the company and having strong leadership in order to convince people that a change is needed, creating a vision for change which the employees within the company will understand and follow, communicating the vision, removing obstacles, creating short term goals

to build on change and making the changes stick, in other words you have to make sure that these changes are implemented in the corporate culture.

The Kubler-Ross Change Curve is a model for navigating the transition from change initiation to reaching organization's overall goals. It is very useful to understand how people navigate change. Building structures to help people move through change accelerates the adaptation process as many people experience feelings of loss during the change. (Anastasia, 2015) At the beginning of the process, the employees are in shock or denial and are not prepared to undergo change and adapt to something new. In the second stage of the implementation of change when employees have more clear vision of what lies ahead would feel some fear, because they have been comfortable for some period of time with the situation in the company and now they need to change and learn something new. The third stage is when employees finally see and understand the change in the organization, at this stage they may try to bargain with the management, which means that they will try to learn only what is important for them. Because of that management should encourage them to get the best of the training in order to successfully implement the change. The fourth stage is characterized by low mood or lack in energy because the learning phase is not always a very happy and comfortable zone for some of the employees. In the fifth stage employees have finished with training and learning and this is the stage where some of the employees fully understand and implement the change, while others don't accept the need for change and might resign from the company.

3. TOURISM INDUSTRY IN NORTH MACEDONIA

Despite its rich history and cultural heritage, with rich gastronomy and wine making traditions, traditional music, cultural feasts and celebrations, all fed by different historic and cultural influences, North Macedonia still represents an insufficiently explored destination in tourism terms. Unfortunately, the tourism industry is on a low developed level. Some changes have occurred, but have not created some visible impact.

North Macedonia possesses diversity embedded in its tangible and intangible heritage and the major focus of tourism development is now to find the appropriate sustainable marketing offers and enhancement tools to reveal them as key tourist resources. North Macedonia in first place positions itself by the variety and number of cultural heritage sites, part of its rural, mountain and urban landscapes.

The change management in tourism agencies means that the Macedonian tourist agencies have to shift from “old” type of tourism, which means attracting tourist only with the sun, sand and lakes, to the “new” types of tourism, which means offering to the tourist alternative types of tourism, and forming a complex tourist product. The research conducted by (Cuculeski, Petrovska, & Mircevska, 2015), regarding the importance of change in operating tourist agencies, shows the importance of alternative types of tourism for the development of the Macedonian tourist market and also the benefits for the tourist companies. The companies and agencies which offered alternative types of tourism to their clients had 25% growth in their profit, which is a significant result.

Today North Macedonia is becoming more and more attractive tourist destination, visited by tourist from different parts of the world. Because of that the tourism plays an important part in the economic development of the country, according to (World Travel & Tourism Council, 2017) 10.4 billion denars of the total GDP of the country falls down to the tourism only, which is 1.8% from the total GDP, also there are 12000 jobs which are directly connected to tourism which is 1.6% of the total employed citizens in the country. In addition, the impact of tourism in the future would be even greater, as according to (World Travel & Tourism Council, 2017) the GDP contribution by 2027 would rise to 16.7 billion denars, and the number of employees which are directly connected to tourism by 2027 would rise to 14000.

Due to the highly saturated lifestyles, fast leaving in urban environment makes modern tourists to seek a place where there is peace and tranquility located in a healthy environment. Tourists recently visiting North Macedonia are less interested in the mass type of tourism. They are more interested in the natural beauties, mountains, valleys, canyons, and they are interested in the culture of our people, archaeological sites, historical monuments, cuisine, they are eager to try the recipes passed from generation to generation through history.

4. RESEARCH RESULTS

The research was conducted through a questionnaire answered by 25 respondents (sent to 50 respondents) from tourist agencies in the Republic of North Macedonia. The majority of the respondents were professional managers (45.8% or 11 respondents), followed by those who stated that they are both owners and managers (37.5% or 9 respondents) and lastly those who are owners (16.7% or 4 respondents). Most of the agencies were located in the city of Ohrid which is the best known tourist destination in the country (50%), followed by

those located in the capital Skopje (20,9%) and the rest were dispersed in other cities around the country. The majority of the respondents came from agencies operating for more than 10 years (40%), followed by those that exist between 1 and 5 years (32%) and those that operate between 5 and 10 years (28%). Most of the agencies are working in outbound and inbound tourism (44%), followed by those only engaged in inbound tourism (36%) and those engaged only in outbound tourism (20%). All the companies in the sample belong to the small enterprises sector. The majority of the surveyed companies have less than 5 employees (64%), while 16% have between 5 and 10 employees and 20% have more than 10 employees.

At the beginning, we addressed the organizational setup and functioning of the agencies and their experience with change and change management. The agencies provided insight into the organizational models that they utilise. As can be seen from Table 1 most of them are using a model of a travel agency with a network of business units (32%). This means that they have a head office that controls the activities within the organization and also takes care of marketing management related activities. The second most used model is the classical model (28%) of a head office with several subsystems. The other models were chosen by smaller number of companies.

Table 1. The type of organizational model used

Classical model: a head office with several subsystems: commercial affairs, financial bookkeeping, legal etc.	28% (7)
A model with marketing activities: all the subsystems from the classical model, plus marketing unit	4% (1)
Model of marketing organization: it has two main sectors, general management and marketing management, which are closely connected	8% (2)
Model of a travel agency with a network of business units: it has head office which controls all the activities in the organization as well as the activities of marketing management	32% (8)
Model of a travel agency without a network of business units: it has a central agency organization that contains all the business units that are located in the head office and marketing management sector	12% (3)
A model of a receptive organization: it has two main sectors, a receptive and marketing sector	12% (3)
A model of an initiative organization: it has initiative sector that is divided into two departments	4% (1)

One of the questions investigated the knowledge that the respondents have about the change in the tourism paradigms. When asked about their familiarity with the recent changes in the tourism market, more precisely the shift from mass tourism to offering more alternative and adventure tourism, most of the respondent answered that they are moderately familiar with the changes (64% or 16 respondents), followed by those who claim that they are extremely familiar with the changes (28% or 7 respondents) and very few answered that they are somewhat familiar (8% or 2 respondents).

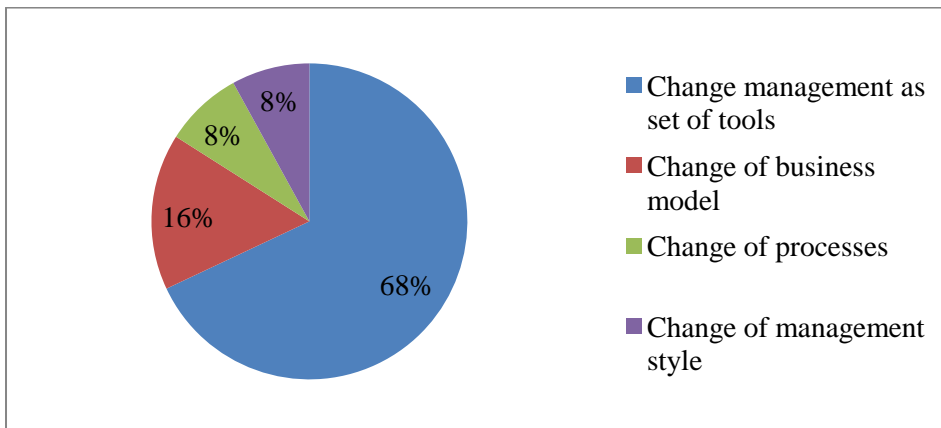
None of them answered that they are not familiar or that they are slightly familiar. This points to a good level of familiarity with the newest developments in the tourism, but there is still space for improvement as most of the respondents are moderately familiar with the new trends and they might need help in adjusting their offerings accordingly.

The main interest of the paper is however the organizational change. Therefore, the respondents were asked to provide their opinions on the meaning of change to them based on their previous experiences. Only 18 respondents provided answers. Most of them perceived change as a positive occurrence, as something that is necessary for success, as a pathway to development and improvements. Some connected change to their everyday activities of keeping active, travelling and discovering.

There was only one answer that shed a slightly more worrying tone to the term change emphasizing that it can be a terrifying thing, but something that has to be done, at the same time stating that small changes and adjustments happen all the time.

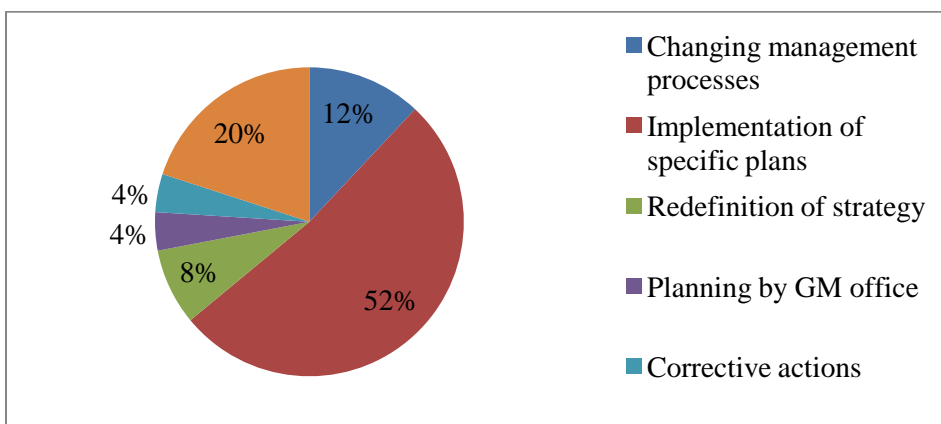
The next question provides deeper insight into what is change management for the respondents. It also tries to test whether the respondents are familiar with the term change management. The respondents were offered set of options for answering this question. As can be seen from Graph 1, for most of the respondents (68%) change management means using a set of tools which are combined under one application which is leading the people's side of change in order to achieve some desired outcome or results. As this is one of the definitions of change management the answer uncovers that the respondents are familiar with the term change management. The other answers were overall change of the business model, change of processes and change of the management style.

Graph 1. The meaning of change management



When asked about whether they have gone through a process of change, 64 % of the respondents answered positively and 16% stated that they have likely gone through such a process. This means that a solid number of companies have experienced change in recent years. To understand the changes made, the respondents were asked about the type of changes that they carried out. Graph 2 presents the results. Most of the respondents highlighted that the change management their company went through was connected to implementation of specific plans, followed by those who said that the change management was connected to gathering and analysing feedback.

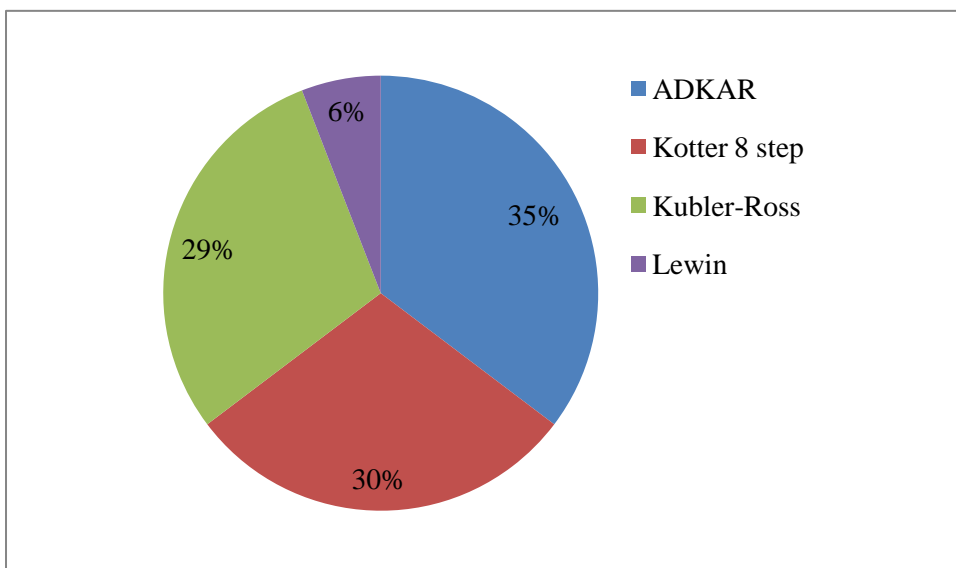
Graph 2. Activities carried out by the companies in the process of change management



To deepen the understanding of the change management process the respondents were asked whether they have used a specific model in the change process. As can be seen from Graph 3 most of the respondents declared that they have used the ADKAR model (35,3%) which is a change management model that's goal focused. According to the model, everything you do during the change management process is sequential: you must achieve cumulative goals during the process to achieve your overall change goal. Equal number of respondents (29,4% or 5 companies) stated the use of Kubler-Ross five-stage model and Kotter's 8-step change model.

The Kubler-Ross model allows the management to empathise with the employees as the change is implemented and sequentially lists the emotional and cognitive reactions of people to change: Denial, Anger, Depression, Bargaining, and Acceptance. Kotter's model lists 8 steps in the change management process: creating sense of urgency, building guiding coalition, forming strategic visions and initiatives, enlisting volunteer army, enabling actions by removing barriers, generating short term wins, sustain acceleration, institute change. Only one company has used Lewin's model of change management that list three stages: unfreeze, change and freeze.

Graph 3. Change models used



CONCLUSION

During the change process the reactions of the employees to change are crucial for the successful implementation of the change. The majority of the respondents in the research (66,7%) stated that their employees hesitated to accept the change at the beginning but acknowledged the benefits of the change after the change was implemented. Another 33,3% stated that their employees accepted the change immediately. None of the respondents expressed resistance to change by the employee or turnover as a result of the change process.

This means that the respondents perceive that their employees are supportive of the change process regardless of the small initial resistance. When asked about how successful they were in the implementation of the change 56% (14 companies) stated that they were successful in the implementation of the change and 44% (11 companies) stated that they have had moderate success in implementing the change.

Lastly, the respondents were asked about the impact of the change on their respective companies mainly related to their performance on the tourist market. Most of the companies (52%, 13 companies) had moderate effect on their performance, followed by those which experienced major effect on their performance (24%, 6 companies), and 16% (4 companies) who are neutral in their answers. On the other hand only one reported no changes to its performance.

Organizational models of travel agencies depend on the heterogeneity of tourism demand in the constantly changing market, so travel agencies must follow the tourism market trends in order to set up an organizational hierarchy to meet the more specific requirements of tourists.

The research showed that the majority of the respondents were familiar with the term change management and they have implemented the change management and have changed from managing the old style of tourism (sun, sea, sand) to the new style of tourism, which means offering more alternative types of tourism.

Furthermore while implementing the change management process the majority of the companies have followed the ADKAR model, and it can be recommended to the others as the most used model in the change management process.

REFERENCES:

- Burnes, B. (2000). *Managing Change a Strategic Approach to Organisational Dynamics (3rd ed.)*. UK, London: Pearson Education Limited.
- Butler, W. R. (2006). *The Tourism Area Life Cycle*. UK, Bristol: Channel View Publications.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Science (2nd ed.)*. NJ, Mahwah: Lawrence Erlbaum Associates, Publishers.
- Duffy, F.M. (1996). *Designing high-performance schools: A practical guide to organizational reengineering*. FL, Delray Beach: St. Lucie Press.
- Hiatt, J. M. (2004). *Employee's survival guide to change*. CO, Fort Collins: Prosci Research
- Hiatt, J.M., Creasey, T.J. (2012). *Change Management: The people side of change (2nd ed.)*. CO, Fort Collins: Prosci Learning Center Publications.
- Keller, P., Bieger, T. (2010). *Managing Change in Tourism: Creating Opportunities – Overcoming Obstacles*. Germany, Berlin: Schmidt
- Kotter, J.P. (1996). *Leading Change*. MA, Boston: Harvard Business School Press
- Kotter, J.P., Schlesinger, L.A. (2008). Choosing strategies for change. *Harvard Business Review*, 57(21), 106-44.
- Kunze, F., Bohm, S.A., Bruch, H. (2013). Age, resistance to change, and job performance: Testing for a common stereotype. *Journal of Managerial Psychology*, 28(7/8), 741-760.
- Mou, I.K. (2013). Identifying and minimizing risks in the change management process: The case of Nigerian banking industry. *Journal of Business Economics and Management*, 1(6), 148-162.
- O'Neill, M. (2012). *Managing workplace change: A People-Based Perspective*. Retrieved from https://www.knoll.com/document/1352940440990/WP_ManagingChange.pdf
- Price, A.D., Chahal, K. (2006). A strategic framework for change management. *Construction Management and Economics*, 24(3), 237-251.
- Robbins, S.P. (2003). *Organizational Behavior*. CA, San Diego: Prentice-Hall
- Shivappa, R. (2015). Change Management - Concept, Process, Principles and Skills. Retrieved from <https://www.slideshare.net/shivapparamakrishna/change-manage-dr-r-shivappa>
- Stewart, J., Kringas, P. (2003). Change Management—Strategy and Values in Six Agencies from the Australian Public Service. *Public Administration Review*. 63, 675-688.

- Struckman, C., Yammarino, F. (2003), Organizational change: A categorization scheme and response model with readiness factors. *Research in Organizational Change and Development*, 14, pp. 1-50. [https://doi.org/10.1016/S0897-3016\(03\)14079-7](https://doi.org/10.1016/S0897-3016(03)14079-7)
- Tang, C., Gao, Y. (2012). Intra-department communication and employees' reaction to organizational change: The moderating effect of emotional intelligence. *Journal of Chinese Human Resources Management*, 3(2), 100-117
- What is Change Management?. (n.d.). Retrieved from <https://www.prosci.com/change-management/what-is-change-management>
- World Travel and Tourism Council (2017). Travel and Tourism: Global Economic Impact and Issues. Retrieved from <http://mindersgroup.net/wp-content/uploads/2017/07/2017-Tourism-Global-Economic-Impact-and-Issues-2017.pdf>

ECONOMIC DETERMINANTS OF STUDENTS' ACADEMIC ACHIEVEMENT IN BOSNIA AND HERZEGOVINA

Eldar Komar

School of Economics and Business, University of Sarajevo

Emina Kuloglija

School of Economics and Business, University of Sarajevo

Abstract

One of the main foundations of achieving the competitiveness is the possession of educated and qualified labour force. It is important to emphasize that formal educated population isn't a prerequisite for building the competitiveness and that it is necessary to consider the phrase "quality over quantity". During tertiary education, there are different factors that have an impact on the success of students. These factors often can be a main barrier of access to higher education. The surveyed population are students of public and private universities in B&H. The authors also paid attention to the structure of student costs, such as those students who are living with a family, in students home or staying in rented apartments during their studies. Findings of the regression analysis points to an important argument that the student's academic success decreases with growth of income. In support of this conclusion is the fact that higher-income students are less motivated to achieve more significant academic achievements. The aims of the research is to demonstrate how financial dimensions affect academic prosperity, how students perceive the costs of tuition and how many employers have understanding for students seeking work engagement as an additional source of income.

Keywords: tertiary education, educational costs, economic impact, student economic position, trends of students' average grade

JEL classification: C55, I23, I24

1. Introduction

Porter (1990) highlights that the prosperity of a national economy is not inherited, but is created and based on the state's capacity to upgrade its industry through continuous innovation. Porter's theory of competitiveness gains particular importance in the 21st century, which is characterized by the processes of globalization and informatization, and by permanent changes of almost every aspect of business and social life. Thanks to the Internet and modern information and communication technologies, we have a large amount of information that can be used for different purposes and in different situations. Also, these processes have led to numerous changes in the business world. The development of information technologies and the emergence of numerous and global competition has influenced the way of thinking of top management of companies and the radical turnarounds in company business. New business trends and imperatives are emerging and force numerous companies to leave the traditional way of doing business in order to survive in the crude business conditions imposed by the new century and its trends.

In such the environment, particular pressure is placed on education which, as Farooq et al. (2011) emphasize, is the first step in every human activity and plays a key role in the development of human capital. Education is an investment for the future. There is a term in economy - frictional unemployment that represents voluntary unemployment due to various factors such as migration, job change and education. That type of unemployment is treated as desirable because it enables the expansion of the future capacities of the national economy and its further growth and development, depending on long-term macroeconomic goals. However, the question arises - whether young people (in the context of our research, students) have equal opportunities and chances for education? What factors influence them in the educational process and do they have equal chances for success? There are various factors influencing the students' educational process as well as their academic success, among them the most significant social and economic factors.

Within this paper, the study of economic factors affecting the academic success of students in Bosnia and Herzegovina has been done.

2. Literature Review

Measuring academic success and student performance are a big challenges, because many factors such as economic, social, psychological and environmental have different and significant influence. For this reason, numerous

studies have been carried out on the factors affecting the academic achievement of students. Studies of student academic success are made depending on different factors such as those already mentioned. Below are some of them.

Sayed (2006) conducted a research how different factors influence the performance of students between 18 and 22 years old in Pakistan. The questionnaire was mainly concerned with the student profile on the basis of his attitude towards study, severity, attendance, age, previous academic achievements, etc. The results of the research have shown that only two observed variables (attendance at teaching and education of mother) have a positive impact on the academic performance of students, while the remaining three variables have a negative impact. This has proven that students who are regularly attending lectures have a more serious approach to studying and thus achieve better results.

Potter (2013) states that the socio-economic background of students has a major impact on their academic achievements as well as the socio-economic backgrounds of their colleagues with whom they are studying. Students with the lower income in mixed schools have better results than students with the lower income in high poverty schools. Research confirms the relationship between individual achievement and student characteristics. Mickeelson & Bottia (2010) conducted meta-analysis in 2010 and found that students regardless of socio-economic status, class, ethnic group and race were more likely to achieve better math results if they attended schools promoting socio-economic, racial and ethnic integration.

On the other hand, Simplicio (2019) emphasizes that online courses become a trend among students and that every year more and more students are using the opportunity to complete their courses through this option. However, one question arises – Do universities have the appropriate strategies to support the new paradigm of studies and to ensure that academic performance remains at the same level? Research shows that the failure rate is 10% to 20% higher than the traditional learning mode. The author in the paper advises the five strategies that can significantly enhance the work of the university in terms of online courses and ensure better performance of professors and students.

Milun et. al (2017) conducted a research about the impact of certain socio-economic and demographic factors on student success. Regular attendance at lectures and exercises has a positive impact on the number of points in the colloquium. A positive influence on the success of the colloquium was also

confirmed for the variable time spent in self-study. Also, students who rated their own good (3) and very good (4) rating on a scale of 1 to 5 had significantly better results than other students. Other variables such as age, sex, employment, and parenthood have not been statistically significant.

Farooq et al. (2011) conducted a survey of over 300 female and male students in Pakistan's 10th grade assessing how various factors affect their success. The results of the research have shown that the socio-economic status and the degree of parenting have a significant impact on the overall academic achievement of students. The high and the average socio-economic level affects the work performance more than the lower level. It is important to emphasize that the authors have found during this research that the level of parent education means more than their interest in the academic performance of their children at school. Finally, research has shown that girls achieve better results than students.

Tomul and Polat (2013) examined the influence of socio-economic status of students on their academic achievement as well as the relationship between the stated determinants. The average grade score is the total average grade that students have until the beginning of last year in their sections. As far as independent variables are concerned, the educational status of parents, family income, the settlement in which the family lives, the status of the father's workplace, the number of brothers and sisters and the background of the student before the student's selection examination are taken into account in the study. The results of the studies show that the secondary school type from which students graduate can be considered as an essential preacher for academic achievement of students. Family-related variables are not strong preachers.

Creighton (2007) analyzes factors influencing the degree of graduation of marginalized populations and among these factors, one of the key factors are the economic factors, the more precise the financial help needed to enroll and support low-income students in higher education. Based on earlier research, the author concludes that financial help affects the persistence of the learner, especially among the most economically disadvantaged, and that the issue of funding college education and its impact on the retention of Latin American students is critically considered when considering the national trend of increasing tuition while decreasing programs financial help.

Chmeielewski & Reardon (2016) have done international comparisons and established the link between income and academic success of the population on

the basis of different countries of the world. The authors used the data from PIRLS and PISA studies from 2001, 2009 and 2012. The PISA survey is based on pupils aged 15 in reading, maths and natural sciences and a small number of countries participating in parent research. In addition, the authors examined the correlation between the size of the difference in income in the country, its inequality in income and a number of other characteristics of the country. Subsequently, the observed variables are grouped into four primary indices of national characteristics: (a) poverty / inequality, (b) social welfare policies, (c) parental support, and (d) educational differentiation. Multivariate analysis showed that income differentials are positively linked to educational differentiation, modestly negatively related to standardization of the curriculum, and positively associated with the national poverty and inequality level.

Önder and Uyar (2017) conducted research into the characteristics of students who are significant for their academic success in the Turkish education system. The sample was represented by secondary school students in the Turkish city of Burdur. The data were collected using a questionnaire in the academic year 2014-2015. and analyzed using CHAID, which represents the type of decision tree technology. The CHAID analysis was completed with 10 branches and 18 knots, and the academic achievement of the students (end of year performance) was explained by certain factors, including the degree of parent education, attendance at the educational center, parental status and monthly income of parents. It was found that the most important characteristic of parents for the success of a student is actually the degree of father's education.

3. Method and Procedure

The empirical analysis was carried out on the basis of the conducted survey. The survey was conducted in the period February 2019 - May 2019. The population that participated in the survey were students of the bachelor, master and PhD programmes in Bosnia and Herzegovina. The questionnaire was filled in by 147 respondents, 75.51% of them were women, and 24.49% are male. The population was questioned through an electronic questionnaire sent to the addresses of all universities in Bosnia and Herzegovina.

The survey had 25 questions pertaining to gender data, average grade during the study, age of the respondent, place of residence, place of study, the amount of average monthly income, the amount of average monthly family income, the number of family members schooling at the same time, the annual tuition, savings and plans for continuing education. Also, the issues related to the field of

study and the way of living during the course of the studies were part of the questionnaire.

3.1 Statistical Analysis

On the basis of the conducted research, the authors decided to include 13 variables in the regression analysis. The "performance" that measures the average grade of students during the studies is taken as the dependent variable. The following are the independent variables: *sex*, *age*, *employment status*, *study cycle*, *student status*, *average monthly personal income*, *average monthly family income*, *tuition fees*, *saving money*, *place of residence*, and *plans for continuing education*.

By statistical modeling, the authors chose to create a complex multi-regression model:

$$\begin{aligned} \log(\text{PERFORMANCE}) &= \beta_0 + \beta_1 p_{\text{INCOME}} + \beta_2 f_{\text{INCOME}} + \beta_3 \text{FEE} \\ &+ \beta_5 \text{SEX} + \beta_6 \text{AGE} + \beta_7 \text{STATUS} + \beta_8 s_{\text{LEVEL}} \\ &+ \beta_9 w_{\text{STATUS}} + \beta_{10} \text{FMS} + \beta_{11} \text{SAVINGS} + \beta_{12} \text{PLANS} \\ &+ \beta_{13} l_{\text{PLACE}} + \beta_{14} f_{\text{INCOME}}^2 + \beta_{15} p_{\text{INCOME}}^2 + \varepsilon \end{aligned}$$

$$\begin{aligned} \log(\widehat{\text{PERFORMANCE}}) &= 1.893 + 0.000152 \cdot \widehat{p_{\text{INCOME}}} + 0.0000179 \cdot \widehat{f_{\text{INCOME}}} \\ &+ 0.00000889 \cdot \widehat{\text{FEE}} - 0.00269 \cdot \widehat{\text{SEX}} + 0.0226 \cdot \widehat{\text{AGE}} \\ &+ 0.0751 \cdot \widehat{\text{STATUS}} + 0.0118 \cdot \widehat{s_{\text{LEVEL}}} \\ &+ 0.0104 \cdot \widehat{w_{\text{STATUS}}} + 0.00510 \cdot \widehat{\text{FMS}} \\ &+ 0.00886 \cdot \widehat{\text{SAVINGS}} - 0.0174 \cdot \widehat{\text{PLANS}} \\ &+ 0.00504 \cdot \widehat{l_{\text{PLACE}}} - 2.15 \cdot \widehat{f_{\text{INCOME}}}^2 \\ &- 0.000000116 \cdot \widehat{p_{\text{INCOME}}}^2 \end{aligned}$$

For the purposes of statistical regression analysis, the authors set the "performance" to the place of the dependent variable. This variable represents the average grade of students during their studies. The average value of this variable is 7.94, while the standard deviation is 0.88. The scale set to measure student performance ranges from 6.00 to 10.00. With a 95% confidence level, the authors claim that the average grade in the population of 147 students ranges from 7.80 to 8.08. According to the regression analysis, independent variables explain 14,70% variations in the dependent variable, while 85,30% are contained in the error.

The "SEX" variable was used for gender labeling purposes. Within the survey, among the 147 examinees, 75.51% of the respondents belong to the female sex. The authors used the "STATUS" variable to distinguish full-time from *part-time* students. Out of 147 respondents, 57.14% are regular students.

The variable "s_LEVEL" means the level of education, that is, the current attainment of a particular education cycle. According to the analysis, 68.71% of the respondents attend the first cycle of higher education, 29.93% attend the second cycle, while 1.36% attend the third cycle, or PhD program.

For the purposes of identifying data in the model, the authors used the variable "w_STATUS" to distinguish those students who are employed during education from those who are not in employed. The survey involved 130 unemployed and 17 students who are employed during their education.

The variable "p_INCOME" indicates the average monthly personal income of students. Thus, the average income of students who participated in the survey was 323.47KM with a standard deviation of 303.27KM.

The authors used the variable "f_INCOME" to indicate the average monthly income of the family of students. The average value is 1827.55KM, with a standard deviation of 1026.39KM.

Variable "FEE" means the amount of the annual tuition fee of the respondents. For the purposes of the research, it was collected that the average annual tuition fee for 147 respondents was 896.60 KM with a standard deviation of 798.32 KM. The variable "FMS" means the number of members in the family of respondents who are at the same time studying. The average number of family members at the same time is 2, with a standard deviation of 1.

The authors used the "SAVINGS" variable to help respondents show their money-saving options. Thus, 52.38% of respondents answered that they were able to save money by taking into account current costs of studying.

The variable "I_PLACE" indicates the place of residence of the respondent. According to the analysis, 73.47% of those surveyed stay in their own home or apartment, while others live in rented accommodation or student dormitories.

The variable "PLANS" indicates the respondents' intention to continue their education in view of the current financial situation. Out of 147 respondents,

65.99% answered that considering the current financial possibilities, they will continue their education.

Table 1: Descriptive statistics

Variable	Obs	\bar{x}	σ	x_{min}	x_{max}
SEX	147	0.244898	0.4314969	0	1
AGE	147	2.027211	0.784661	1	5
STATUS	147	0.5714286	0.4965635	0	1
s_LEVEL	147	1.326531	0.4988104	1	3
PERFORMANCE	147	7.942857	0.8848806	6.5	9.9
W_STATUS	147	0.1156463	0.3208936	0	1
p_INCOME	147	323.4694	303.3752	50	1600
f_INCOME	147	1827.551	1026.385	400	4000
FEE	147	896.5986	798.3214	100	2100
FMS	147	2.564626	1.104586	1	6
SAVINGS	147	0.5238095	0.5011403	0	1
I_PLACE	147	0.7346939	0.4420055	0	1
PLANS	147	0.6598639	0.4753744	0	1
logPERFORMANCE	147	2.066108	0.1115519	1.871802	2.292535
f_INCOME ²	147	4386241	4291134	160000	1.60e+07
p_INCOME ²	147	196042.9	410789.2	2500	2560000

Source: Authors' calculations

By examining the assumptions for the validity and confidentiality of the OLS model, the authors chose the following model because assumptions about normality, homoskedasticity and multicollinearity were fulfilled.

Table 2: OLS coefficients

VARIABLE	COEFFICIENT
SEX	-0.00269
	(0.0217)
AGE	0.0226***
	(0.0131)
STATUS	0.0751*
	(0.0275)
s_LEVEL	0.0118
	(0.0209)
W_STATUS	0.0104
	(0.0334)
p_INCOME	0.000152***
	(0.000106)
f_INCOME	0.0000179
	(0.0000422)

FEE	0.0000889
	(0.000165)
FMS	0.00510
	(0.00868)
SAVINGS	0.00886
	(0.0204)
I_PLACE	0.00504
	(0.0225)
PLANS	-0.0174
	(0.0223)
f_INCOME2	-2.15e-09
	(9.97e-09)
p_INCOME2	-0.00000116***
	(7.59e-08)
const.	1.893***
	(0.0652)
N	147
R ²	0.147
Standard errors in parentheses * p<0.015, ** p<0.0055, *** p<0.15	

Source: Authors' calculations

We expect men to have an average performance of 0.269% lower in comparison to women, with the remaining unchanged conditions.

In context of variable «sex» increasing ages for one year, we expect that the average student performance will increase by 2.26% with the remaining unchanged conditions. This effect is significant at a level of 10%.

We expect the results of the analysis that full-time students will have higher performance in average of 7.51% compared to part-time students and self-financing students with other unchanged conditions. The effect is statistically significant at the level of 1%.

Regression analysis shows that by turning to each subsequent education cycle, performance ratings increase by an average of 1.18% if the other conditions are unchanged.

We expect students who are employed in comparison to students who are not employed to have lower performances on average by 1.04% if the other conditions are unchanged.

If tuition fees are increased by one monetary unit, we expect student performance to increase by an average of 0.000889% if other conditions remain unchanged.

If the number of members in the family who are simultaneously educated increases for one person, we expect that the students' performance will increase on average by 5.10% if the remaining conditions remain unchanged.

Students who save the money in relation to students who do not save money have higher performances by 0.886% on average if the other conditions are unchanged.

According to the results of the analysis, we expect students staying in their own house or family apartment in relation to students who live in student dormitories have better performance on average by 0.504% if the other conditions remain unchanged.

We expect those students who, considering the financial situation, plan to continue their education, have an average lower performance by 1.74% compared to students who do not plan to continue their education due to a poor financial situation if the other conditions are unchanged.

If the average monthly family income of a student increases by one monetary unit, we expect that students' performance will be reduced by an average of 2.407% if the remaining conditions remain unchanged. According to statistical regression analysis, we expect students to decrease their performances by an average of 4.213% if the average monthly income of a student increases by one monetary unit, provided that the remaining factors remain unchanged. This effect is significant at a level of 10%. Through the use of statistical package STATA 13, the authors also conducted a correlation analysis of independent variables in the model. Most of the model variables have a moderate positive relationship, so the assumption about the lack of perfect correlation between variables is fulfilled.

Table 3: Correlation matrix

	SEX	AGE	STATUS	S_LEVEL	W_STATUS	P_INCOME	F_INCOME	FEE	FMS	SAVINGS	L_PLACE	PLANS	F_INCO-2	P_INCO-2
SEX	1.0000													
AGE	-0.0603	1.0000												
STATUS	-0.1142	-0.1948	1.0000											
s_LEVEL	-0.1195	0.3621	-0.1225	1.0000										
W_STATUS	0.0414	0.2050	-0.0737	0.0620	1.0000									
P_INCOME	0.1258	0.1855	-0.1024	0.0432	0.3694	1.0000								
F_INCOME	0.1014	0.1385	-0.1433	0.0699	0.1774	0.1726	1.0000							
FEE	-0.0194	0.0975	-0.7069	0.1266	0.0149	-0.0126	0.1419	1.0000						
FMS	-0.0191	0.0691	0.0071	0.0236	-0.0695	-0.0793	0.2568	-0.0079	1.0000					
SAVINGS	-0.0588	-0.0713	0.1651	-0.1135	-0.0385	0.0100	0.2367	-0.1479	0.0683	1.0000				
L_PLACE	0.0197	0.0800	-0.1468	-0.1012	0.1691	-0.1491	0.0749	0.0575	0.0423	-0.0176	1.0000			
PLANS	0.0416	-0.0668	-0.0124	-0.3083	-0.0547	0.0111	0.1752	-0.0753	-0.0752	0.3792	0.1540	1.0000		
F_INCOME ²	0.0992	0.1120	-0.1104	0.0381	0.2116	0.1757	0.9738	0.1285	0.2337	0.2280	0.0587	0.1760	1.0000	
P_INCOME ²	0.1189	0.1981	-0.1017	0.0106	0.3112	0.9501	0.1350	-0.0035	-0.1023	-0.0115	-0.1029	0.0311	0.1538	1.0000

Source: Authors' calculations

4. Conclusion

The authors have focused this research on economic determinants that have a significant impact on the performance of students during their studies. The focus was on income factors that affect the average grade. The research was conducted in the first half of 2019 in Bosnia and Herzegovina. Within the framework of the survey, students from different universities from the territory of Bosnia and Herzegovina were examined.

For the purposes of creating a model for statistical analysis and impact assessment will be performed, the authors used the statistical programme STATA 13. The performance of students representing the average grade during the studies was taken as the dependent variable in this model. The construction of the variable was performed in such a way that the performance ranged from 6.00 to 10.00, where 6.00 marks the worst performance, and 10.00 the most successful performance. As independent variables authors used, gender, age, student status, study cycle, status of (un)employment, average monthly personal income of the student, average monthly income of the respondents' family, annual tuition fees, number of family members who are studying at the same

time, savings possibilities, place of residence during the studies, plans for continuing education in accordance with financial possibilities.

According to the statistical results of this study, we expect men to have lower performance compared to women. Also, the results indicate that performance increases with age, which is one of the effects of psychological maturation of students. Taking into account the division of students from full-time and part-time, according to the results we expect full-time students to have better performance in studying. One of the interesting conclusions is that the increase in the number of family members who are simultaneously educated has an impact on performance change. Statistics indicate that student performance improves with the increase in the number of family members who are studying. By analyzing the "*savings*" variable, we have come to the conclusion that students who save money during studying should have better performances. Likewise, we expect that those students who live in their home or with their family during the studies will have better performances than those living in a rented accommodation or student dormitory. Also, statistical results show that performance decreases with increasing personal and family income if other conditions are unchanged.

These factors are of economic character, however, there are many other factors that potentially affect the performance of students. Other factors that significantly affect the performance are sociological, social and psychological character. All these factors together create an atmosphere for manifesting success during schooling.

References

- Chmeielewski, A. K. & Reardon, S. F. (2016) Patterns of Cross-National Variation in the Association Between Income and Academic Achievement. Creighton. L. (2007). Factors Affecting the Graduation Rates of University Students from Underrepresented Populations. *International Electronic Journal for Leadership in Learning*, Volume 11, Article 7
- Farooq, M.S., Chaudhry, A.H., Shafiq, M. & Berhanu, G. (2011). Factors affecting students' quality of academic performance: a case of secondary school level. Volume7, Issue 2, pp 01 - 14
- Hepworth, D., Littlepage, B. & Hancock, K. (2018). Factors Influencing University Student Academic Success. *Educational Research Quarterly*, Volume42, Number1, pp45-61
- Mickelson, R. S., & Bottia, M. (2010). Integrated education and mathematics outcomes: A synthesis of social science research. *North Carolina Law Review*, Volume87, pp 993-1089
- Milun, T., Akalović Antić, J. & Dumičić, K. (2017). Analysis of the effects of socioeconomic and demographic characteristics on students' academic achievement. *Sarajevo Business and Economics Review* 35/2017, pp 83-102
- Önder, E. & Uyar, Ş. (2017) CHAID Analysis to Determine Socioeconomic Variables that Explain Students' Academic Success. *Universal Journal of Educational Research*, Volume5, Number4, pp 608-619
- Potter, H. (2013) Boosting Achievement by Pursuing Diversity. *Educational Leadership*, Volume70, Number8, pp38-43
- Porter, M. E. (1990). The Competitive Advantage of Nations. *Harvard Business Review*, Volume68, Number2, pp 73–93.
- Sayed, M. (2006). Factors affecting students' performance a case of private colleges. *Bangladesh e-Journal of Sociology*. Volume 3. Number 1., pp. 1-11
- Simplicio, J. (2019). Strategies to improve online student academic success and increase university persistence rates. *Education*, Volume 139, Number 3, pp 173-177
- Tomul, E. & Polat, G. (2013). The Effects of Socioeconomic Characteristics of Students on Their Academic Achievement in Higher Education. *American Journal of Educational Research*, Volume1, Number10, pp 449-455

EVALUACIJA OKVIRA ZA ANALIZU ODRŽIVOSTI I UPRAVLJANJA JAVNIM DUGOM BOSNE I HERCEGOVINE

Mirza Kršo

Ekonomski fakultet Univerziteta u Sarajevu

Kemal Kozarić

Ekonomski fakultet Univerziteta u Sarajevu

Abstract:

Ovaj rad propituje da li Bosna i Hercegovina upravlja svojim javnim dugom i na koji način to eventualno čini. Specifične karakteristike ustavnog, ekonomskog i fiskalnog sistema naglašavaju ulogu javnog duga za stabilnost javnih finansija BiH, a njen euroatlantski put predviđa ispunjavanje maastrichtskih kriterija u vezi javnog duga. Odatle su više iznenađujući nalazi u ovom radu koji ukazuju na ozbiljne manjkavosti okvira za analizu održivosti javnog duga BiH i izostanka njegove primjene kao inputa u procesu upravljanja javnim dugom. Dapače, upravljanje javnim dugom se čini, u najboljem slučaju, prisutno u formi pasivnog pristupa bez identifikovane prave strategije, statističke osnove i instrumenata za adresiranje identifikovanih rizika u njegovom portfoliju.

Ključne riječi: održivost javnog duga, upravljanje javnim dugom, intertemporalno budžetsko ograničenje

JEL klasifikacija: E61, E62, E69

1. Uvod

Više od pola stoljeća pitanje javnog duga je u fokusu vrlo značajne ekonomske literature koja unatoč važnim teoretskim i empirijskim doprinosima ostavlja otvorenim cijeli niz ključnih pitanja. Pitanja upravljanja javnim dugom i njegove održivosti su specifičan segment unutar te oblasti koji zahvaljujući različitom historijskom iskustvu sa javnim dugom ima poseban tretman u praksi i teoriji.

Akademski pristup održivosti primarno počiva na konceptu intertemporalnog budžetskog ograničenja i testiranja njegovih pretpostavki. Upravljanje se uglavnom fokusira na riziko komponentu i dospijeće budućih tokova vezanih za profil javnog duga.

S druge strane, praksa relevantnih institucija nalazi domete oba ova pristupa kao potrebnim ali ne i dovoljnim uslovom za kreiranje efikasnih strategija i njihovu djelotvornu implementaciju. Nadogradnju nalaze u pokušaju formulisanja fiskalnih pravila po uzoru na Taylorovo pravilo, koji bi ovu oblast fiskalne politike više primakao sferi znanosti nego umjetnosti što je još uvijek dominantna odrednica realnosti.

Uporedo, politička ekonomija pokušava analizu proširiti sa pitanjima institucionalnog kapaciteta i konteksta u kojem se upravljanje realizuje a održivost interpretira.

Za to vrijeme je historija ponudila takvu raskoš zapleta, najrazličitijih ili bez pravog raspleta, sa kojom je teoriji, empiriji i praksi bilo jako teško držati korak. Od historijski niskih nivoa i omjera zaduženosti s početka '70-ih, pa do najvećeg skoka u njihovim vrijednostima, od 30 pp u periodu 2007-2012¹⁶ za razvijene zemlje, do eksplozije zaduženosti zemalja u razvoju koje su od sredine sedamdesetih sedmostruko¹⁷ povećale svoje portfolije, da bi zatim preokrenuli trend i započeli njihovo snažno smanjenje sa čime su nastavile i u jeku finansijske krize. Posljedično, entuzijazam potaknut nalazima u akademskoj literaturi i praksi stabilizacije javnih finansija i ograničavanja ozbiljnih fiskalnih ispada i kriza u prethodnom stoljeću, smjenjivan je zabrinutošću nakon epizoda destrukcije sa javnim dugom u naslovnoj ulozi. Za svaki primjer stabilnosti i pozitivnih dosega, uvijek postoji Latinska Amerika kao opomena, naspram Čilea opetovano se javljaju debakli javnih finansija Argentine, nakon skandinavskih lekcija ipak se desila grčka tragedija i drama u Italiji.

¹⁶ Podaci iz Historical Public Debt Database, IMF

¹⁷ Ibidem

Tri stvari se pritom, čini se, nameću kao važni zaključci. Prvo, postoje različite (ne)prihvatljive putanje u pogledu visine javnog duga i opštih ekonomskih performansi. Tako npr. EU prosjek odnosa javnog duga i GDP konstatno opada (na 81% u 2018), uz robusne performance EU ekonomije, SAD uspijevaju imati slične rezultate i sa 106% (u 2018), Japan sa 238% javnog duga u odnosu na GDP nema krizu javnih finansija, dok zemlje kao npr Grčka ne mogu sebi dozvoliti sličan manevar i nisu bile u stanju servisirati svoj dug na nižim uporedivim nivoima (EU Comission, 2018, str. 15).

Drugo, niti akademski niti stručni kriteriji i postojeća fiskalna pravila nisu nas na vrijeme upozorili da javni dug Grčke prijete da razori njene javne finansije i ekonomski sistem osudi na izgubljenu dekadu. Koliko nam je poznato, ne postoji niti jedna studija koja bi uspjela dokazati da je javni dug Grčke po bilo kojem parametru (bio) inherentno neodrživ.

I na koncu, ostavljajući pitanja mogućih uzroka za narednu sekciju, čini se da ekonomije u razvoju imaju više razloga za oprez. Naime, u posljednjih pedeset godina incidenca kriza javnog duga je značajno viša u grupi zemalja u razvoju 4,7%, naspram 1,7% za razvijene zemlje (EU Comission, 2018).

Generalno pitanje koje razmatra ovaj rad je, gdje se u svemu tome nalazi Bosna i Hercegovina (BiH); koji su parametri održivosti našeg javnog duga, i kakve prakse njegovog upravljanja koristimo. Kao ekonomija u razvoju evidentno je da BiH pripada rizičnijoj skupini nedovoljno razvijenog institucionalnog okvira i uz specifično ograničenje currency board-a i federalnog ustavnog uređenja.

Naime, odricanjem od korištenja potencijala monetarne politike¹⁸ i korištenjem mehanizma currency board-a, slično kao i u slučaju fiskalnih neravnoteža unutar monetarne unije, javne finansije i fiskalna politika dobijaju dodatno na značaju. Stoga bilo kakav problem unutar javnih finansija mora imati viši riziko ponder u strukturi ravnoteže privrede.

Također, složenost ustavnog okvira se direktno odražava na izgled i efikasnost fiskalnog sistema, time i javnog zaduženja (pogledati npr Kreso et al., 2016). Kako većina nivoa vlasti nema pravi kapacitet zaduživanja niti kreditnog rejtinga, uglavnom se zaduženje vrši kroz državni, centralni nivo kao principala. Složen

¹⁸ Pritom naravno treba zadržati dozu rezerve, obzirom da za malu ekonomiju koja je u potpunosti izložena eksternim uticajima kretanja svih varijabli koje određuju mehanizam makroekonomske trileme nepostojanog trojstva, teško je, barem teoretski, pretpostaviti da je autonomna monetarna politika realna opcija.

koloplet federalističkih odnosa pri tome generiše problem dvostruke otplate nižih nivoa vlasti, labavih budžetskih ograničenja i fiskalne neodgovornosti. To svakako usložnjava analizu održivosti javnog duga i odabir adekvatnog pristupa njegovom upravljanju, ali i istovremeno naglašava njihovu važnost.

Pored toga, EU putanja BiH i maastrichtski kriteriji dodatno naglašavaju potrebu za seriozan pristup ovom pitanju. Opasnost od unošenja potencijalnog izvora nestabilnosti u sistem javnih finansija Evropske unije, izvjesno je, će biti pod posebnim povećalom prilikom razmatranja ispunjenja postavljenih uslova, bez obzira kada se desi, tako da i u tom kontekstu treba shvatiti važnost upravljanja javnim dugom.

Imajući na umu navedeno, bilo bi za očekivati da je pitanje javnog duga, uz povezana pitanja javnih finansija u fokusu državnog i akademskog interesovanja. Ipak, uz svu pažnju koju izaziva u političkim debatama, javni dug BiH nije privukao podjednak interes akademske i istraživačke zajednice. Skroman istraživački opus primarno je fokusiran na utvrđivanje njegove visine i strukture (Poljašević i Trivić, 2019), te reverzibilnim efektima odabranog režima deviznog kursa na visinu javnog duga (npr. Silajdžić, 2005). Međutim, pitanja upravljanja javnim dugom BiH i njegove održivosti su ostala gotovo isključivo u domeni periodičnih publikacija Međunarodnog monetarnog fonda (IMF) – Konsultacije po članu IV, te ministarstava finansija svih nivoa vlasti u vidu publikacija Strategija za upravljanje javnim dugom od 2016 godine. IMF je, kako će biti izloženo u nastavku, zajednički sadržilac gotovo svih institucionalnih dometa u slučaju analize održivosti javnog duga, tako da postoje snažni argumenti za ambivalentni - akademski i stručni aspekt analize i to je pristup koji ovaj rad prihvata.

2. Teoretski i praktični pristup održivosti i upravljanju javnim dugom

Principijelno, hijerarhija, razlike i odnosi između održivosti javnog duga i upravljanja javnim dugom su vrlo jasno markirane u teoriji i implementirane u praksi.

Upravljanje javnim dugom je znatno uži koncept koji podrazumijeva aktivnosti države na finansijskim tržištima usmjerene na promjenu strukture postojećeg javnog duga, dok se njegova visina uzima kao zadata (Paalzow, 1992). U fokusu se nalazi poboljšanje kompozicije dospijuća instrumenata duga sa ciljem optimiziranja troškova javnog duga i povezanih rizika.

S druge strane, održivost javnog duga nema jasnu ni zaokruženu definiciju ni u akademskoj literaturi (prilično obimnog opusa), niti, posljedično, u praksi upravljanja ovim segmentom državnih finansija. Ova dva pristupa, akademski i profesionalni imaju zasebne pristupe analizi održivosti javnog duga koje je u kontekstu javnog duga BiH važno pojedinačno razmotriti.

Collignon (2012) sumira najveći dio istraživanja unutar akademskog pristupa koji održivosti javnog duga prilazi kroz dinamički ekvilibrij koji ne zahtijeva promjene u fiskalnoj politici, a po kojem bi trenutna vrijednost javnog duga bila pokrivena sadašnjom vrijednosti budućih primarnih suficita¹⁹. Ovaj koncept sadašnje vrijednosti intertemporalnog budžetskog ograničenja je temelj akademske analize održivosti javnog duga pod pretpostavkom dinamički efikasne ekonomije. Paralelno, očekivana sadašnja vrijednost javnog duga mora u dugom roku biti jednaka nuli, ili negativna, čime se uvodi uslov transverzalnosti. Bohn (1995) je pokazao da samo u slučaju istovremenog zadovoljenja oba uslova se svi relevantni ekonomski agenti, prije svih vlada i kreditori, onemogućavaju u poduzimanju akcija iz spektra Ponzijevih schema²⁰, jedni protiv drugih.

Iz ove bazične skice okvira analize održivosti javnog duga proizilazi cijeli niz pitanja koja su tretirana u ekonometrijskoj i makroekonomskoj literaturi.

Prvo, Geerolf (2013) je, koristeći podatke za OECD zemlje, odbacio zaključke iz klasičnog rada Abel et al. (1989) koji je prethodno identifikovao šest razvijenih ekonomija koje su ispunjavale uslov dinamičke efikasnosti. Geerolf nije uspio potvrditi dinamičku efikasnost na primjeru ijedne testirane ekonomije, što otvara pitanje validnosti okvira intertemporalnog budžetskog ograničenja. To je, naravno, dobro poznati problem u analizi održivosti javnog duga kojeg je razradio Diamond (1965), pokazavši da niti jedna strana intertemporalnog budžetskog ograničenja ne zadržava mandatorni karakter u slučaju dinamički neefikasne ekonomije, ukoliko je granična stopa produktivnosti kapitala niža od stope rasta GDP-a. Postojanje dinamičke neefikasnosti, kako Diamondovi zaključci impliciraju, može se interpretirati kao instrukcija, ili ambijent za gomilanje, ili barem povećanje nivoa javnog duga, obzirom da je bilo koji nivo javnog duga održiv sve do ostvarenja dinamičke efikasnosti. U protivnom države akumuliraju prekomjerne količine kapitala.

Drugo, kako Colignon (2012) navodi, nastavljajući na Bohn (1995) i Bohn (2007), važno je pravilno adresirati endogenost solventnosti i likvidnosti vlada u horizontu

¹⁹ Ne uključujući kamate na javni dug

²⁰ Tzv. No Ponzi scheme game condition Buiter (1985)

dinamičkog ekvilibrijuma. U osnovi, ukoliko vlada poštuje intertemporalno budžetsko ograničenje, kriterij solventnosti je ispunjen. Međutim, obzirom da oba koncepta uključuju dugoročne projekcije, te da su budžetski deficiti dozvoljeni sve dok se očekuju barem jednaki primarni suficiti, tada je jasno da solventnost *per se* ne može predstavljati robusan input u analizi održivosti javnog duga. Likvidnost, s druge strane, biva redovno testirana kroz refinansiranje javnog duga.

Problemi sa likvidnosti mogu ugroziti solventnost (IMF, 2017 i 2018) kroz kanale kamatnih stopa i deviznog kursa, dok neizvjesnot u pogledu poštivanja intertemporalnog budžetskog ograničenja može umanjiti povjerenje investitora i njihovu spremnost da refinansiraju dug, te izazvati krizu likvidnosti. U tom slučaju vlada, iako solventna, može biti primorana na promjene fiskalne politike bez obzira što je javni dug u osnovi održiv (Collignon, 2018).

Bodea and Hicks, (2018) ovome pridružuju i eventualni disparitet između vladine mogućnosti i (ne)spremnost da servisira javni dug.

Također, jednoobrazna interpretacija bilo kojeg kvantitativnog elementa u analizi održivosti javnog duga se pokazala kao vrlo zahtjevan izazov. Za razliku od popularne percepcije koja dominira u javnom prostoru, u akademskom pristupu održivosti je od početka bilo potpuno jasno da visina javnog duga sama po sebi nema upotrebljivo značenje. Čak ni u kontekstu ukupnih finansijskih potreba, budžetske politike i fiskalne pozicije, stvari nisu do kraja određene. Odatle je usvojen koncept posmatranja odnosa između javnog duga (ili njegovih elemenata, npr. kamatne stope) i GDP-a. Preciznije, fokus je ne na vrijednost samog udjela javnog duga u GDP, već na limitiranju njegove dugoročne stope rasta (Spaventa, 1987). Cijeli je niz mogućih scenarija i izvedenih fiskalnih pravila, ali u osnovi kriterij intertemporalnog budžetskog ograničenja nije dovoljan i adekvatan uslov za efikasnost fiskalnih pravila.

I ostali korišteni indikatori i mjere zaduženosti i njene održivosti nose različitu vrstu i intenzitet nesavršenosti koja poziva na oprez u njihovoj interpretaciji i korištenju u svrhe njegovog upravljanja i dizajniranja fiskalne politike. Švaljek (2000) nudi klasični pregled tradicionalnih pristupa u mjeranju održivosti javne zaduženosti uz pokušaj analize održivosti hrvatskog javnog duga kroz širi spektar indikatora zaduženosti. Takav, rudimentarni analitički dizajn može biti okvirni smjer za prve korake u izgradnji okvira za analizu održivosti javnog duga BiH, što je i fokus ovog rada.

Provjerivost održivosti koncepta intertemporalnog budžetskog ograničenja, a time i održivosti javnog duga, imaju naravno i svoje empirijske i ekonometrijske izazove koje je važno skicirati. Većina literature se usmjerila na izvođenje zadovoljavajućeg seta ograničenja odabranih zavisnih varijabli kako bi intertemporalno budžetsko ograničenje bilo održivo u dugom roku. To je platforma na kojoj su Hamilton i Flavin (1986) razvili testove za održivosti stacionarnog javnog duga pokušavajući adekvatno utvrditi sadašnju vrijednost intertemporalnog budžetskog ograničenja. Wilcox (1989), Trehan i Walsh, 1991, Quintos (1995), Afonso (2005) nastavili su razvijati dalje ovaj pristup, ili se kritički osvrtni na njega formirajući mainstream literature u pogledu testiranja održivosti javnog duga.

Bohn (1995, 1998 i 2007) je doveo u pitanje prevladavajući ekonometrijski pristup evaluacije održivosti javnog duga kroz prizmu intertemporalnog budžetskog ograničenja. Dvije su osnovne primjedbe; prvo, dominantno korišteni unit-root i kointegracijski testovi vremenskih serija, u osnovi, ne mogu odbaciti održivost; drugo, postojeće analize su uglavnom koristile prosječnu kamatnu stopu niskorizičnih obveznica ili trenutnu kamatnu stopu umjesto stohastičkog diskontnog faktora. Na koncu, Bohn predlaže da se fokus premjesti ka povratnim fiskalnim pravilima po analogiji sa Taylorovim pravilima i uobličava to u Model-Based Sustainability okvir²¹.

Collignon (2012) se nastavlja na Bohn-ovu kritiku u pravcu pozivanja na analizu i razumijevanje institucionalnog okvira i konteksta u kojem podaci nastaju, a ne prosto svodenje na inpute u ekonometrijskim testovima. Sličan je tretman i outputa, gdje, pored nepostojanja primarnog pokazatelja (ne)održivosti javnog duga, niti set od nekoliko kompozitnih indikatora nema kapacitet njegovog određivanja.

U dodatku na to, slučajevi fiskalnih kriza od 2008. godine, naročito EU krize javnog duga, ali i ranije epizode ukazali su na dvije važne stvari. Prvo, postojeći predikcijski i upravljački kapaciteti nisu mogli niti pravovremeno ustanoviti, a zatim reagovati na moguće probleme sa održivosti javnog duga (npr. Reinhart et al., 2003). Drugo, različite zemlje su potpuno drugačijom brzinom, putanjom i otpornošću reagovale na slične okidače krize javnog duga, te iskusile probleme sa njegovom održivošću na bitno različitim nivoima zaduženosti. Fournier i Bétin (2018) zaključuju da sa sličnim fiskalnim, finansijskim i makroekonomskim propozicijama, usljed strukturnih i institucionalnih razlika zemlje mogu imati bitno različite profile rizika.

²¹ Za detaljnije o MBS pogledati Bohn (1998)

Slijedeći pregled dat u EU Commission (2018) moguće je sumirati tri grupe institucionalnih faktora koje determiniraju održivost javnog duga.

Institucionalni okvir fiskalne politike je prvi i vjerovatno najčešće tretiran u literaturi. Eyraud et al., (2018) npr ispituje vezu između fiskalnih pravila i ciljanih fiskalnih ishoda, npr budžetskih neto pozicija, utvrđujući određeni nivo efikasnosti uspostavljenih fiskalnih pravila u fiskalnoj disciplini, ali sa značajnim odstupanjima za različite zemlje i fiskalne sisteme.

Kvaliteta vlade, odnosno upravljanja, je drugi element koji, naravno, obuhvata cijeli niz indikatora kvalitete institucionalnih karakteristika. Ovi faktori, koje je vrlo teško kvantificirati, prema Fournier i Béтин (2018) imaju kapacitet destabilizacije održivosti javnog duga i pored niskih apsolutnih i relativnih pokazatelja zaduženosti.

Treća grupa uključuje ukupan *politički sistem* i faktore tipa stepena demokratičnosti, nivoa političke stabilnosti, vladavine zakona i slično. U literaturi koja pokriva zaista širok spektar specifičnih cjelina unutar ove oblasti moguće je formirati generički zaključak da zemlje sa snažnim i kvalitetnim političkim institucijama imaju veći stepen otpornosti na probleme iz domena javnog duga (npr. Qian, 2012). Kraay i Nehru (2006), te Van Rijckeghem i Weder (2009), zaključuju da zemlje sa snažnijim institucijama i kvalitetnijim politikama mogu podnijeti više nivoa zaduženosti i općenito su bolje pozicionirane u pogledu održivosti javnog duga. Iznad tretirani, problemi sa definisanjem i konzistentnošću održivosti javnog duga u tzv. akademskom pristupu, te potreba uključenja šireg institucionalnog konteksta su opredijelila nastanak hibridnog pristupa – stručnog, ili ekspertskog pristupa analizi i upravljanju javnim dugom. Ideja je jednostavna, postojeći akademski koncept nadograditi sa faktičkim elementima vezanim za konkretnu promatranu situaciju (npr. procjenu održivosti javnog duga date zemlje), te realističnim scenarijima budućih razvoja relevantnih varijabli.

U praksi to podrazumijeva da se složenoj transverzalnoj prirodi postojećeg i budućeg duga pristupi probabilistički kreirajući širok spektar scenarija, povezanih rizika i indikatora (EU Commission, 2018). Takav output se ne može koristiti automatski, niti mehanički prevoditi u fiskalnu politiku, već je neophodna njegova pažljiva interpretacija gdje iskustveni faktori i upravljačka komponenta igraju važnu ulogu. IMF analiza održivosti javnog duga, tzv. DSA²² okvir i EU Commission FSF²³ predstavljaju dva najvažnija, ili barem najrelevantnija primjera ovog pristupa.

²² Eng. Debt Sustainability Analysis

²³ Eng. Fiscal Sustainability Framework

Oba pristupa smatramo važnim u kontekstu analize održivosti javnog duga BiH. Naime, IMF pristup je faktički korišten od strane BiH institucija u posljednje dvije dekade, dok se EU okvir treba posmatrati u kontekstu harmonizacije sa EU fiskalnim pravilima i procedurama. Bez namjere i prostora da ih detaljnije obrazložimo²⁴, moguće je skicirati njihovu implementaciju i output. EU FSF analizu razdvaja u komponente kratkog, srednjeg i dugog roka. Osnovni, baseline, scenario u kojem nije potrebno mijenjati kurs fiskalne politike se podvrgava stohastičkoj analizi kroz tri grupe stres-testova (testirajući za kamatnu stopu, stopu rasta i promjenu primarnog suficita/deficita, kroz 2000 simulacija) na koncu kreirajući kompozitne indikatore (tzv. S_0 , S_1 i S_2) koji nose ocjenu riziko komponente u rasponu slab-umjeren-naglašen. IMF pristup je principijelno isti, te u konačnici producira trokomponentnu matricu. Odatle se održivost javnog duga posmatra u svjetlu a) sadašnje vrijednosti vanjskog duga kao procenta GDP-a, te izvoza; b) Servisiranja vanjskog duga kao procenta GDP-a, te javnih prihoda i c) sadašnje vrijednosti ukupnog javnog duga kao procenta GDP-a. Ovisno o dobijenim vrijednostima uspostavljeni su rasponi koji ove pokazatelje sortiraju kao i u EU pristupu u tri razreda rizika slab-umjeren-naglašen.

3. Pregled i analiza održivosti javnog duga BiH

Evaluaciju održivosti javnog duga i prakse njegovog upravljanja u BiH ćemo otvoriti sa kratkim pregledom stanja javne zaduženosti. Tabela 1 sumira ključne varijable u profilu javnog duga BiH.

Tabela 1: Stanje i pokazatelji javne zaduženosti BiH

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ukupan dug (mlrd KM)	7,4	7,4	8,3	9,5	10,0	10,5	10,4	11,5	11,9	12,1	11,0	11,1
Udio vanjskog duga (%)	53,7	57,0	63,3	66,3	66,8	68,2	71,1	71,4	70,4	70,7	71,3	73,8
Udio unutrašnjeg duga (%)	46,3	43,0	36,7	33,7	33,2	31,8	28,9	28,6	29,6	29,3	28,7	26,2
Odnos JD/BDP (%)	30,5	30,8	36,1	39,6	40,6	43,6	44,5	45	45,5	43,7	40,5	33
Odnos JD/Izvoz (%)	92,9	80,9	107,2	102,4	96,8	124,4	115,4	123,9	120,8	115,1	90,7	86,4

Izvor: IMF i MFT BiH i izračun autora

²⁴ Za detaljnije o oba pristupa pogledati EU Commission (2018), IMF (2017a) i IMF (2017b)

Uz navedeno, valutna struktura javnog duga BiH uključuje 73,2% obaveza u EUR i/ili KM, što je zbog currency board aranžmana svakako pozitivna karakteristika, dok je najviša izloženost riziku promjena u USD, 15%. Većina duga je bilateralnog karaktera, sa mješavinom klasičnih kreditnih i koncesionih aranžmana. Unutrašnji dug je uglavnom sačinjen od obveznica raspona od 1-10 godina, sa najvećim udjelom srednjeročne komponente 3-7 godina (preko 66%), od čega je dio usmjeren na finansiranje obaveza stare devizne štednje i ratnih potraživanja, te srednjeročnih kredita kod komercijalnih banaka. Komercijalne banke su primarni kreditori i obvezničkog segmenta i segmenta trezorskih zapisa.

Takozvani "stari dug", dug nastao prije 1992. godine iznosi oko 13%, a "novi dug" primarno je usmjeren u tri oblasti: infrastrukturu, javni sektor, te "ekonomske aktivnosti"²⁵ (pri tome infrastruktura ima dvostruko višu vrijednost od druge dvije kategorije zajedno i od 2009. je uvećana 4 puta, dok javni sektor kontinuirano ima dva puta višu vrijednost od stavke "ekonomske aktivnosti", pri čemu su obje u istom periodu udvostručile svoju vrijednost). Trenutni kreditni rejting B/B3²⁶, sa pozitivnim, odnosno stabilnim izgledima je praktično prvi puta od sniženja 2009., odnosno 2011., dobio pozitivnu promjenu izgleda.

Navedeno su osnovne koordinate stanja javne zaduženosti, ali, kako smo vidjeli u sekciji 2., ne postoji pojedinačni indikator koji bi reflektovao stanje održivosti javnog duga. Praksa upravljanja javnim dugom i analiza njegove održivosti podrazumijevaju cijeli niz pokazatelja koje je nužno staviti u odgovarajući kontekst, kako bi bili uopšte svrsishodni i kao cjelina funkcionalni. Stoga će evaluacija biti postavljena kroz tri etape; statička analiza postojećeg profila javnog duga, analiza korištenog okvira upravljanja javnim dugom institucija BiH, te evaluacija korištenog IMF-ovog okvira za analizu održivosti javnog duga, što uključuje i stohastički, predikcijski element.

Dakle, zaključno sa 2018²⁷ godinom, javni dug BiH je na nivou od 11,157 milijardi KM, ili 33% u odnosu na GDP što BiH svrstava među najmanje zadužene zemlje regije i Evrope. Prema IMF (2017), fiskalna pozicija centralne vlade ima pozitivnu ocjenu sa pozitivnim kratkoročnim i srednjeročnim izgledima. Međutim, za dopunu te slike potrebno je skicirati širi kontekst promjena u kretanju javnog duga i ključnih povezanih fiskalnih varijabli.

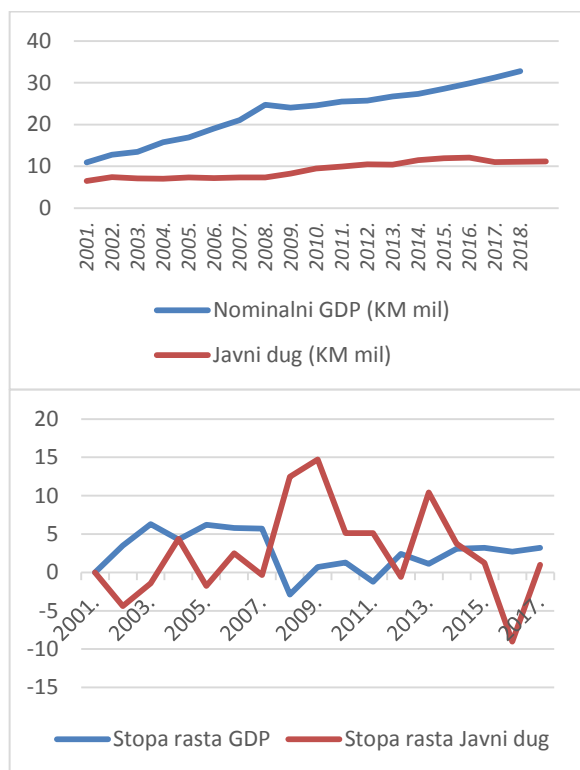
²⁵ Pogledati MFT BiH, 2018, za detaljniji uvid u obuhvaćene aktivnosti unutar svake od ovih kategorija.

²⁶ Standard&Poor`s i Moody`s, respektivno.

²⁷ Zadnja godina sa dostupnim podacima

Tako je postojeća vrijednost javnog duga 151% uvećana u odnosu na predkrizni period 2007. godine, dok je na vrhuncu iz 2012. akumulirala 164% u odnosu na vrijednost iz 2007. Kada se za isti period javni dug stavi u kontekst sa GDP-om, povećanje udjela javnog duga u GDP iznosi između 5 i 15 procentnih poena na vrhuncu iz 2014. godine. Grafici 1 i 2 dopunjavaju podatke iz Tabele 1 i nedvosmisleno ilustruju da je generator ovih negativnih kretanja upravo povećanje zaduženosti, dok je njihovo zaustavljanje, a zatim i snižavanje posljednje tri godine, najvećim dijelom proisteklo iz porasta GDP-a. Dodatno, na osnovu deskriptivne statistike, očekivani smjer u kretanju GDP-a i javnog duga prati nesrazmjer u intenzitetu i dinamici. Naime, unutar perioda za koji postoje podaci (2002-2018), javni dug je u pravilu, gotovo instantno i naglašeno pratio negativne promjene u rastu GDP-a, dok je reakcija na pozitivne promjene bila znatno slabija i docnija.

Grafik 1: Kretanje nivoa javnog duga i GDP-a **Grafik 2:** Stope rasta GDP-a i javnog duga

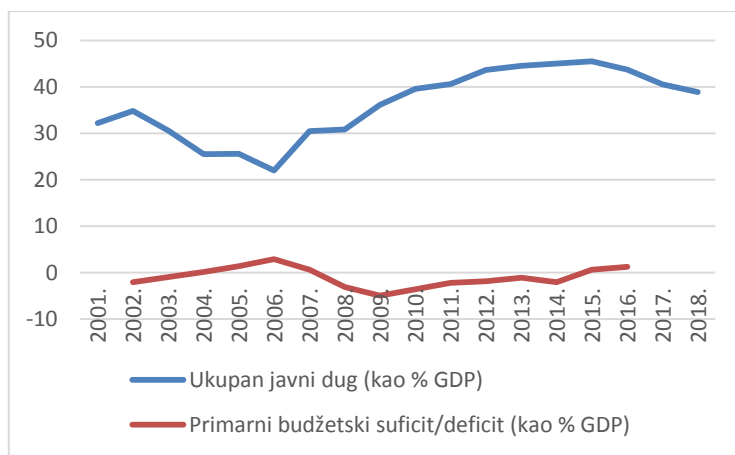


Izvor: IMF i MFT BiH i izračun autora

Izvor: IMF i MFT BiH i izračun autora

Slični zaključci se mogu izvući i na osnovu interpretacije podataka u vezi ključnih fiskalnih varijabli i javnog duga, ilustrovanih na Grafiku 3. Kako smo već konstatovali, fiskalna pozicija centralne vlade je prilično stabilna, posebno zahvaljujući fiskalnim performansama FBiH, mada oslikava sličan narativ kao i promjene u javnoj zaduženosti. U slučaju izraženijih šokova (u ovom slučaju eksternih pritisaka nakon 2007.) rezistentnost se doima vrlo skromnih kapaciteta što naglašava postojeće strukturne probleme i otvara spiralni niz međusobno uslovljenih fiskalnih prilagodbi.

Grafik 3:



Izvor: IMF i MFT BiH i izračun autora

Kao jedan od ključnih elemenata za ocjenu održivosti javnog duga, ukupne finansijske potrebe javnog sektora su na prilično niskom nivou, oko 4%, što je ujedno i dobra i loša vijest. Naime, to reflektuje niži rizik ukupne fiskalne održivosti, time i održivosti javnog duga, ali istovremeno povlači pitanje opravdanosti postojećeg nivoa, naročito njegove komponente „javni sektor“. Drugim riječima, ovaj nesrazmjer indicira neefikasnost u javnom sektoru, što uz podatak o negativnom ROI na javne investicije od -0,3 (Cegar i Parodi, 2019) reflektuje poseban skup potencijalnih faktora rizika održivosti javnog duga BiH koji su sui generis obilježje javnih finansija BiH. Pri tome je moguće identifikovati tri osnovna žarišta; zdravstveni sektor, penzioni sistem i preduzeća u državnom vlasništvu.

Bez detaljnije elaboracije, primarno jer egzaktni i konsolidovani podaci ne postoje što svakako podcrtava dimenzije problema, zdravstveni sektori u oba entiteta, a naročito u RS su decenijski izvor gubitaka, systemske neefikasnosti i

neadekvatnog nadzora. Provedeni i najavljeni pokušaji prebacivanja na sistem trezorskog poslovanja su rani koraci u maratonskom pokušaju njegove stabilizacije.

Prelaz penzionih sistema na budžetsko finansiranje se čini kao potvrda višegodišnjih upozorenja o njihovoj neodrživosti²⁸ čiji efekat treba evaluirati u narednom periodu.

Treći, možda i najakutniji izvor mogućih problema za fiskalni sektor BiH jeste akumulirani gubitak javnih preduzeća od oko 22% GDP-a, te ukupno zaduženje javnog sektora (sa garancijama) procijenjeno na 62% GDP-a, od čega samo neplaćeni porezi javnih preduzeća iznose 1% GDP-a (Cegar i Parodi, 2019).

Na koncu, tu je i neuravnoteženost nedovoljno povezanog ekonomskog prostora BiH, koja je izražena i u relativnoj javnoj zaduženosti dva entiteta, gdje RS sa kontribucijom GDP-u od 32% drži preko 47% ukupnog javnog duga.

Bilo koji od ovih mogućih okidača ima potencijal da multiplikativno uveća finansijske potrebe javnog sektora, izmijeni uslove finansiranja na plitkom domaćem finansijskom tržištu, značajno promijeni historijske i projektovane vrijednosti primarnih budžetskih suficita/deficita, čime bi intertemporalno budžetsko ograničenje dobilo potpuno drugačije parametre, te na koncu primora vladu/e na novi val potencijalno neodrživih zaduženja.

Još jedna dimenzija u analizi održivosti javnog duga općenito i javnog duga BiH specifično, zavrjeđuje osvrt. U skladu sa izazovima definisanja održivosti javnog duga skiciranih u sekciji 2., a apropos inputa u analizi održivosti, posebice unutar praktičnog pristupa, kvalitet projekcija koje se uzimaju za osnovni i izvedene scenarije ima centralnu ulogu.

Kratak pregled dostupnih podataka unutar IMF-ovog DSA okvira za analizu održivosti javnog duga, predstavljen u Tabeli 2, uz sve limite ovog pristupa, nudi priliku za refleksiju po osnovu historijskih vrijednosti odabranih varijabli. Prvo, DSA je do danas, koliko nam je poznato, jedini okvir za analizu koji tretira održivost javnog duga BiH, i obrazac kojeg koriste sve domaće institucije iz ovog domena. Drugo, IMF-a ima sui generis ulogu kreditora sa jedne strane, te ključnog kontrolora za odobravanje važnog dijela portfolija javnog zaduženja sa cijelim nizom uslova više, ili manje mandatnog karaktera, i napose centralnog

²⁸ Pogledati npr. bilo koje Konsultacije po čl. 4 MMF-a u posljednjih 18 godina.

pružaoca tehničke i resursne pomoći u izgradnji analitičkih i statističkih kapaciteta domaćih institucija.

Imajući na umu iznesene napomene, bez interpretiranja visine vrijednosti, ukupno prosječno odstupanje stvarnih vrijednosti u odnosu na projicirane iznosi oko 60%, dok za odnos javnog duga i GDP-a iznosi 22%. Posebno je to izraženo kod primarnog budžetskog suficita/deficita kao ključne varijable za evaluaciju održivosti intertemporalnog budžetskog ograničena, mada treba imati na umu da je tu najčešće riječ o odstupanju u visini jednog procentnog poena. Još jedna karakteristika se čini interesantnom, a to je priličan optimizam u projiciranju vrijednosti ključnih varijabli u baseline scenariju. Drugim riječima, koliko god je moguće utvrditi trend na osnovu ovih podataka, projekcije su u pravilu podcijenile mogućnosti negativnih odstupanja u kretanju tih varijabli. Naročito se to čini uočljivim u slučaju Globalne finansijske krize koja je javne finansije BiH pogodila sa zakašnjenjem od jedne do dvije godine.

Tabela 2: Procentualna odstupanja stvarnih vrijednosti u odnosu na projekcije u IMF DSA

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	\bar{x}
Stopa rasta GDP	20	13	3	4	158	40	160		150	56	48	60
Javni prihodi (kao % GDP)	7	1	4	5	2	2	0	6	6	7	9	4
Javni rashodi (kao % GDP)	10	3	0	1	1	1	1	7	3	10	13	5
Inflacija	6	40	0	110	13	48	9	105	141	233	210	95
Primarna budžetska pozicija	107	186	158	233	8		10	21	600	186	400	174
Ukupan javni dug (kao % GDP)	54	23	10	4	51	38	1	10	21	0	3	22
	Ukupno po svim varijablama											60

Izvor: IMF Konsultacije po čl. IV i izračuni autoa

Napomena: Polja označena crvenom bojom označavaju negativne vrijednosti, odnosno niže vrijednosti stvarnih u odnosu na projicirane vrijednosti odabranih varijabli

Identifikacija ciljeva i targeta u upravljanju javnim dugom, te evaluacija povezanih rizika u praksi analize održivosti javnog duga je recentna pojava u praksi upravljanja javnim dugom u BiH. Prvi zvanični dokument na državnom nivou, Srednjeročna strategija upravljanja javnim dugom BiH (MFT, 2016), nastao je prije tri godine i tretira period od 2014. godine, za koji su izračunati relevantni indikatori. Entitetske strategije su uslijedile i pokrivaju isti period.

Kako je period od preko dvije dekade samostalnog upravljanja javnim dugom uglavnom protekao bez iti jednog zvaničnog cilja, ili analize (izuzimajući informacije o stanju javne zaduženosti), postavlja se pitanje da li se javnim dugom upravljalo u pravom smislu, ili je on prosti rezidual ostalih elemenata fiskalne i šire ekonomske politike.

Jedan dio odgovora se nudi u hroničnim problemima sa evidencijom javnog duga BiH, gdje su samo državni i entitetski nivoi uvedeni u MTDS²⁹ okvir Svjetske banke, dok gotovo niti jedan niži nivo vlasti nema sistematski uređenu evidenciju javnog duga. Drugi dio odgovora se može potražiti u dostupnim relevantnim dokumentima Ministarstva finansija i trezora BiH, tzv. strategijama upravljanja javnim dugom. Naime, niti jedna od dostupnih strategija ne nudi konkretne ciljeve koje bi trebalo ostvariti u zadatom periodu, niti postavlja intermedijarne targete, te posljedično ne definiše instrumente kojima bi se trebala realizovati njihova implementacija. Tako se pregled ciljeva i smjernica za njihovo ostvarivanje može sažeti u svega nekoliko generičkih instrukcija: „*Osnovni cilj Strategije je obezbjeđivanje finansijskih sredstava za finansiranje potreba države, entiteta i DB uz prihvatljivi nivo troškova finansiranja i rizika... Smanjenje navedenih rizika može se ostvariti na način da se vanjski krediti ugovaraju sa dužim rokom dospjeća, fiksnim kamatnim stopama i u valuti EUR gdje god uslovi kreditora to omogućavaju, uz uvažavanje troška finansiranja... Dodatni cilj predstavlja razvoj domaćeg tržišta hartija od vrijednosti, budući da razvijeno tržište predstavlja osnovni preduslov za efikasno upravljanje dugom (MFT, 2019, str. 3 i 12)*“.

Disparitet sa stvarnim strateškim ciljevima i funkcionalnim upravljanjem javnim dugom je očit ukoliko se iznad navedene odlike BiH Strategija kompariraju sa strategijama uporedivih zemalja. Naprimjer, Slovenija u cilju zaduživanja po tržišnim uslovima i smanjenja tržišnog rizika identifikuje tri ključna rizika za svaki kvantificira targete: a) rizik refinansiranja - kratkoročni dug 4,2% potrebnog zaduživanja u 2011.; b) kamatni rizik - udio duga s fiksnom kamatnom stopom povisiti na 99,7%; i c) valutni rizik - dug u eurima povisiti na 99,8% ukupnog duga (Bajo i Pezer, 2012).

S druge strane, identifikacija i kvantifikacija relevantnih rizika javnog duga BiH je vjerovatno najpozitivnija vijest u hronologiji razvijanja okvira za upravljanje javnim dugom i evaluacije njegove održivosti. Tabela 3 obuhvata pregled najvažnijih indikatora troškova i rizika postojećeg duga.

²⁹ Eng. Medium Term Debt Management Strategy

Tabela 3: Indikatori troškova i rizika postojećeg duga

Trošak duga	Vanjski dug				Unutrašnji dug			
	2014	2015	2016	2017	2014	2015	2016	2017
Prosječna ponderisana kamatna stopa (%)	1,4	1,3	1,9	1,5	2,9	3,8	3,9	3,2
Iznos kamate u odnosu na BDP (%)		0,4	0,4	0,4		0,3	0,3	0,2
Rizik refinansiranja								
ATM	7,6	7,3	7,1	7,2	3,6	3,1	3,1	3,1
Dug koji dospijeva u 1g (% ukupnog duga)	5,7	7,2	10	10,2	25,8	25,1	24,2	28,1
Dospjeće duga u sljedećoj godini (% od GDP)		2,1	2,7	2,5		2,1	2	2,2
Kamatni rizik								
ATR (godine)	4,7	4,5	4,6	4,6	3,3	2,8	3	3
Dug koji se refiksira u 1 g (% ukupnog duga)	50,7	50,2	46,8	46,8	35	32,1	30,8	32,1
Dug po fiksnoj kamati (% ukupnog duga)	51,2	52	56,3	56,3	89,2	91,5	91,3	93,6

Izvor: MFT BiH

Tabela 3 svjedoči o značajnom unaprjeđenju u pogledu evidencije javnog duga BiH, kvalitetu ulaznih i izlaznih podataka, te njenom usklađivanju sa MTDS i DSA³⁰ okvirima i metodologijom (IMF, 2017b). Po prvi puta su utvrđeni indikatori relevantnih rizika koji evidentno usložnjavaju poziciju održivosti javnog duga BiH. Naime, disparitet između uslova zaduživanja i portfolija vanjskog i unutrašnjeg zaduženja je gotovo po svim osnovama dva puta povoljniji u slučaju unutrašnjeg duga. U segmentu vanjskog skoro 50 procenata nosi kamatnu stopu varijabilnog karaktera, dok ukupni portfolio ima praktično srednjeročnu dimenziju dospelja (7 godina) i potrebno ga je, u prosjeku, refiksirati u dvostruko kraćem vremenskom roku (4,6 godina). Upravo stoga postojeći podaci o finansijskim potrebama javnog sektora, primarnim budžetskim pozicijama, te omjeri javnog duga i GDP-a, i općenito intertemporalno budžetsko ograničenje ne mogu biti dostatni za ocjenu održivosti. Evidentno je da naglašen tržišni rizik kojeg oslikavaju indikatori iz Tabele 3 direktno utiče na postojeću, a naročito potencijalnu izloženost nivoa i strukture javnog duga eksternim faktorima kroz kanale valutnog, kamatnog rizika i rizika refinansiranja.

Ove tri dimenzije mnogo više i preciznije kazuju o komponenti tržišnog rizika nego podaci o kreditnom rejtingu ili bilo koja varijabla stanja koje su dominirale u izvještavanju o javnom dugu u posljednje dvije dekade. Pritom ono što može biti

³⁰ Debt Sustainability analysis

zabrinjavajuće jeste historijski kontekst. Značajan dio ukupnog javnog duga nastao poslije 2007. godine u uslovima historijski niskih kamatnih stopa i obilja dostupnog kapitala na svjetskim finansijskim tržištima. Dakle, i u najpovoljnijem finansijskom okruženju kapacitet zaduživanja BiH pod tržišnim uslovima je izuzetno limitiran i to određuje mogućnosti i pravac djelovanja upravljanja javnim dugom, te daje pravi kontekst razumijevanju postojećih indikatora rizika.

Unutar perioda za koji imamo podatke o ustanovljene indikatore rizika, bez obzira na seriju od svega četiri godine, posebno se nameće pitanje njihove stacionarnosti. Najveći broj indikatora rizika gotovo da nije uopće mijenjao svoje vrijednosti. Jedan dio objašnjenja tomu može biti stacionarnost stock-a postojećeg duga, obzirom da većina kreditnih, koncesionih i obvezničkih pozicija je formirana prije momenta izračuna prve serije indikatora, dakle u 2014. godini. Jasno je da u naredne tri godine za koje imamo podatke se portfolio nije mogao značajno mijenjati u odsustvu vanrednih potreba. Međutim to se ne prenosi automatski na rizični portfolio. Šta više, time se naglašava pasivni pristup upravljanja javnim dugom u smislu izostanka ključnih elemenata za aktivan pristup, odnosno upravljanje javnim dugom i analizu njegove održivosti. Ako ne postoje i nisu postavljeni ciljevi upravljanja javnim dugom, uz neadekvatnu evidenciju zaduženja, limitiran tržišni pristup bez pravog adresiranja i pritom se ne koristi bilo kakav instrument upravljanja javnim dugom (od valutnih swap-ova, do npr. opcijskog pokrivanja selektovanih komponenti duga), tada je teško prihvatiti tezu da BiH aktivno upravlja javnim dugom. Pasivan pristup upravljanju javnim dugom se nameće kao adekvatna formulacija u slučaju portfolija javnog duga BiH i njegove riziko komponente.

Pritom je potrebno pojasniti zašto se pasivan pristup upravljanju javnim dugom institucija BiH se ipak bitno razlikuje od neupravljanja, te šta on suštinski podrazumijeva. Tehnička dimenzija fiskalne politike BiH uz asistenciju IMF-a i Svjetske banke³¹ je snažno unaprijeđena u posljednjoj dekadi na svim nivoima, naročito entitetskim. To se može pratiti od pripreme budžeta, njihovog nadzora i kontrole, izgradnje statističkog okvira i usaglašavanja sa IMF-ovim GFS³²-om, MTDS platforme, analiza fiskalne održivosti i održivosti javnog duga, pa do sektorske infrastrukture (npr. SOE³³, zdravstveni sektor i sl.). Dakle, u tom smislu, po prvi puta postoje tehnički preduslovi i kapaciteti da proces analize održivosti javnog duga bude kvantificiran, a zatim formulisan i implementiran

³¹ I cijelog niza drugih inostranih institucija i agencija čije pojedinačno navođenje ne bi imalo suštinskog značaja za prirodu i karakter teksta.

³² Eng. Government Finance Statistics

³³ Javna preduzeća (eng. State Owned Enterprises)

strategija njegovog upravljanja u skladu sa cjelokupnom fiskalnom pozicijom. S druge strane, činjenica da BiH nije aktivno određivala i sprovođila upravljanje javnim dugom ne isključuje mogućnost da je taj proces ipak vođen indirektno i to upravo od IMF-a u smislu davanja podrške, kreiranja ograničenja i uslovljavanja po cijelom nizu fiskalnih i povezanih pitanja. Ovaj rad stoji upravo na tom stajalištu. Bez kvalifikovanja prošlosti u kojoj je to bio dominantni modus operandi, u budućnosti je teško vidjeti racionalne razloge za nepoduzimanje iskoraka iz sfere „udobnosti“ pasivnog i prelaska na aktivni pristup. Više od bilo kojeg tehničkog, teoretskog ili akademskog pitanja, ovdje je ključni odmak u pogledu filozofije, pristupa vođenju vlastite fiskalne politike i politike upravljanja javnim dugom, uključujući analizu njegove održivosti.

4. Zaključna razmatranja

Zbog svojih specifikuma (currency board, neefikasan okvir fiskalnog federalizma, mala i otvorena ekonomija, nerazvijen institucionalni okvir, itd.), te zbog globalnih problema u analizi održivosti i upravljanja javnim dugom, BiH bi trebala da je u protekle dvije decenije izgradila barem bazične kapacitete po oba osnova. Nažalost, kako je ovaj rad utvrdio, to nije slučaj. Neuporedivo bolja situacija je u domenu analize održivosti gdje se, praktično od sticanja nezavisnosti, koristi IMF DSA okvir. U posljednjoj dekadi su intenzivirani naporima za kreiranje adekvatne statističke strukture za kolekciju i obradu potrebnih inputa koji bi DSA pretvorili u funkcionalan alat i odmakli ga od obaveze pravljenja priloga u periodičnim publikacijama o javnom dugu. S tim u vezi, još jedan pozitivan aspekt je i MTDS platforma koju koriste entitetska ministarstva finansija i djelimična obučena osoblja za njihovo korištenje. Ono što nedostaje ovim naporima je vertikalni obuhvat, tj. prenošenje infrastrukturnih i know-how kapaciteta na niže nivoe vlasti, te suštinsko razumijevanje o potrebi za njegovim korištenjem u cilju upravljanja javnim dugom. Također, zabrinjavaju segmenti javnog sektora (zdravstveni sektor, javna preduzeća i penzioni sistemi) čije neravnoteže prijete da se preliju i na ostatak javnih finansija i ugroze održivost javnog duga.

U sferi upravljanja, nažalost, mnogo je manje pozitivnih pomaka. Kako pokazuje Sekcija 3, upravljanje javnim dugom je uglavnom indirektno delegirano IMF-u, koji propozicijama i specifičnom dvostrukom ulogom u odnosu kreditor – upravljač, u značajnoj mjeri utiče na osnovne elemente portfolija javnog duga BiH. Riziko portfolij najvećim dijelom ide u prilog ovoj konstataciji. Ovaj rad definiše takav pristup kao pasivan modalitet upravljanja javnim dugom.

Unatrag četiri godine počela je serija publikovanja zvaničnih strategija upravljanja javnim dugom, državnog i entitetskih nivoa, koje uglavnom sadržavaju generičke

ciljeve bez jasno, ili uopšte formulisanih glavnih, intermedijarnih i operativnih ciljeva. U istom periodu, koliko je bilo moguće utvrditi na osnovu dostupnih podataka, nije iskorišten niti jedan instrument za adresiranje nekog od prisutnih rizika u riziko portfoliju.

Ključni iskorak, smatramo, bilo bi jasno pozicioniranje kao low-income country i potpuno usvajanje adekvatnog okvira za analizu održivosti kod te grupe zemalja. Zatim, izračun sadašnje vrijednosti javnog duga, koji zbog pristupa informacijama trenutno mogu napraviti samo zvanične institucije, predstavlja naredni korak. Na tim osnovama bi mogla biti kreirana prva funkcionalna strategija upravljanja javnim dugom i uz političku deblokadu emitovanju državnih vrijednosnih papira, započet proces aktivnog upravljanja javnim dugom BiH.

Literatura

- Abel, A. B., Mankiw, N. G., Summers, L. H., & Zeckhauser, R. J. (1989). Assessing dynamic efficiency: Theory and evidence. *The Review of Economic Studies*, 56(1), 1-19.
- Afonso, A. (2005). Fiscal sustainability: The unpleasant European case. *FinanzArchiv/Public Finance Analysis*, 19-44.
- Bajo, A., & Pezer, I. (2012). Strategije i ciljevi upravljanja javnim dugom.
- Bodea, C., & Hicks, R. (2018). Sovereign credit ratings and central banks: Why do analysts pay attention to institutions?. *Economics & Politics*, 30(3), 340-365.
- Bohn, H. (1995). The sustainability of budget deficits in a stochastic economy. *Journal of Money, Credit and Banking*, 27(1), 257-271.
- Bohn, H. (1998). The behavior of US public debt and deficits. *the Quarterly Journal of economics*, 113(3), 949-963.
- Bohn, H. (2007). Are stationarity and cointegration restrictions really necessary for the intertemporal budget constraint?. *Journal of monetary Economics*, 54(7), 1837-1847.
- Buiter, W. H. (1985). A guide to public sector debt and deficits. *Economic policy*, 1(1), 13-61.
- Cegar B. & Parodi F.J., (2019). State-Owned Enterprises in Bosnia and Herzegovina: Assessing Performance and Oversight, IMF, *Working Paper No. 19/201*
- Collignon, S. (2012). Fiscal policy rules and the sustainability of public debt in Europe. *International economic review*, 53(2), 539-567.
- Diamond, P. A. (1965). National debt in a neoclassical growth model. *The American Economic Review*, 55(5), 1126-1150.

- Eyraud et al. (2018). Second-generation fiscal rules: Balancing simplicity, flexibility, and enforceability. *International Monetary Fund*.
- EU Commission (2018). Fiscal Sustainability Report. *EU Institutional Paper 094*. Dostupno na linku: https://ec.europa.eu/info/sites/info/files/economy-finance/ip094_en_vol_1.pdf. Pristupljeno 05.11.2019.
- Fournier, J. M. i Béтин, M. (2018). Sovereign defaults: Evidence on the Importance of government effectiveness. *OECD Economics department working papers*, No. 1494.
- Geerolf, F. (2013). Reassessing dynamic efficiency. manuscript, *Toulouse School of Economics*.
- Hamilton, J. D., & Marjorie, A. (1986). Flavin. 1986. On the Limitations of Government Borrowing: A Framework for Empirical Testing. *American Economic Review*, 76(4), 808-19.
- International Monetary Fund (2002- 2018). Bosnia and Herzegovina Article IV Consultation – Staff Report. *Various issues between 2002-2018, IMF Washington DC*. dostupno na linku: <https://www.imf.org/en/Publications/CR/Issues/2018/02/13/Bosnia-and-Herzegovina-2017-Article-IV-Consultation-First-Review-Under-the-Extended-45624>
- International Monetary Fund. (2018). Guidance Note on the Bank-Fund Debt Sustainability Framework for Low Income Countries, *IMF Policy Papers*, Washington, D.C. dostupno na linku: <https://www.imf.org/en/Publications/Policy-Papers/Issues/2018/02/14/pp122617guidance-note-on-lic-dsf>
- International Monetary Fund. (2017 a). Review of the Debt Sustainability Framework for Low Income Countries: Proposed Reforms, *IMF Policy Papers*, Washington, D.C. dostupno na linku: <https://www.imf.org/en/Publications/Policy-Papers/Issues/2017/10/02/pp082217LIC-DSF>
- International Monetary Fund. (2017 b). Revised Guidelines for Public Debt Management, *IMF Policy Papers*, Washington, D.C. dostupno na linku: <https://www.imf.org/en/Publications/Policy-Papers/Issues/2016/12/31/Revised-Guidelines-for-Public-Debt-Management-PP4855>
- Kraay, A., & Nehru, V. (2006). When is external debt sustainable?. *The World Bank Economic Review*, 20(3), 341-365.
- Kreso, Halilbasic, Kesetovic, Lazovic-Pita, Kozadra & Serdarevic (2016). Procjena pozicije Kantona Sarajevo u raspodjeli prihoda od indirektnih poreza u BiH, *Ekonomski institut Sarajevo*

- Paalzow, A. (1992). *Public debt management*. Economic Research Institute, Stockholm School of Economics (Ekonomiska forskningsinstitutet vid Handelshögsk.) (EFI).
- Poljašević, J., & Trivić, J. (2019). Public and private debt: Recent developments in Bosnia and Herzegovina. In *Western Balkan Economies in Transition* (pp. 89-97). Springer, Cham.
- Reinhart, C. M., Rogoff, K. S., & Savastano, M. A. (2003). Debt intolerance (No. w9908). *National Bureau of Economic Research*.
- Silajdžić, S. (2005). The Currency Board Trap: The Case of Bosnia and Herzegovina. *International Journal of Applied Econometrics and Quantitative Studies*, 2(2), 47-79.
- Van Rijckeghem, C., & Weder, B. (2009). Political institutions and debt crises. *Public Choice*, 138(3-4), 387.
- Qian, R. (2012). Why do some countries default more often than others? The role of institutions. *World Bank Policy research working paper*, No. 5993.
- Quintos, C. E. (1995). Sustainability of the deficit process with structural shifts. *Journal of Business & Economic Statistics*, 13(4), 409-417.
- Spaventa, L. (1987). The growth of public debt: sustainability, fiscal rules, and monetary rules. *Staff papers*, 34(2), 374-399.
- Švaljek, S. (2000). Public debt boundaries: a review of theories and methods of the assessment of public debt sustainability. *Croatian Economic Survey*, (4), 55-84.
- Trehan, B., & Walsh, C. E. (1991). Testing intertemporal budget constraints: Theory and applications to US federal budget and current account deficits. *Journal of Money, Credit and banking*, 23(2), 206-223.
- Wilcox, D. W. (1989). The sustainability of government deficits: Implications of the present-value borrowing constraint. *Journal of Money, credit and Banking*, 21(3), 291-306.
- Ministarstvo Finansija BiH (2019), Srednjoročna strategija upravljanja dugom Bosne i Hercegovine, Sarajevo, *dostupno na linku*:
https://mft.gov.ba/bos/images/stories/javni_dug/informacije/2019/august/Srednjoro%C4%8Dna%20strategija%20upravljanja%20dugom%20Bosne%20i%20Hercegovine%20za%20period%202018-2021.%20godina.pdf

EVALUATION OF FRAMEWORK FOR SUSTAINABILITY ANALYSIS OF PUBLIC DEBT MANAGEMENT OF BOSNIA AND HERZEGOVINA

Abstract:

This paper examines whether Bosnia and Herzegovina successfully manages its public debt, and how it goes about doing so. The specific features of its constitutional, economic, and fiscal system emphasize the role of public debt in the stability of BiH's public finances, and its Euro-Atlantic path requires the fulfillment of Maastricht criteria, namely public debt criteria. Hence, findings in this paper, surprisingly, indicate the serious weaknesses in the framework for analyzing the sustainability of BiH's public debt and the lack of its application to the public debt management process. Moreover, public debt management seems, at best, to be present in the form of a passive approach lacking the right strategy and statistical basis, and not using any instruments to address the identified risks in its portfolio.

Keywords: *Public debt sustainability, public debt management, intertemporal budget constraint*

JEL Classification: *E61, E62, E69*

BEČKA KONVENCIJA O MEĐUNARODNOJ PRODAJI ROBE: KAMO DALJE?

Vedad Silajdžić

Ekonomski fakultet u Sarajevu, Univerzitet u Sarajevu

Fatima Mahmutćehajić, PhD

Ekonomski fakultet u Sarajevu, Univerzitet u Sarajevu

Rezime

Već dugi niz godina na međunarodnom planu, uočljiva su nastojanja da se pronađu najefikasniji načini prevazilaženja pravnih prepreka u području međunarodne prodaje robe i različitih regionalnih vrijednosti i drugih specifičnosti. Međutim, u praksi se pokazalo da je veoma teško postići konsenzus među državama oko modela i načina unifikacije. Bečka konvencija UN o međunarodnoj prodaji robe je nesumnjivo najznačajniji i nezaobilazni izvor prava međunarodne prodaje robe i ona predstavlja do sada najuspješniji rezultat unificiranja međunarodnog ugovornog prava. Konvencija je rezultat dugog procesa pregovaranja i usaglašavanja. Potrebno je naglasiti da je Bečka konvencija prihvaćena od „svakog geografskog regiona i svih većih pravnih i ekonomskih sistema“, te da danas osamdeset posto svih međunarodnih transakcija je zaključeno u režimu Bečke konvencije. Ostaje otvoreno pitanje da li je moguće postizanje međunarodnog pravnog konsenzusa o pitanjima koje ova Konvencija nije obuhvatila? Ovaj rad ima za cilj da predstavi i objasni značaj reformi međunarodnog ugovornog prava, prednosti i nedostatke kao i mogućnosti dalje unifikacije ugovornog prava na globalnom nivou.

Ključne riječi: UN Konvencija o međunarodnoj prodaji robe, međunarodna prodaja robe, unifikacija prava, međunarodno ugovorno pravo.

1. UVOD

Trgovina je *de facto* od najstarijih vremena snažan podsticaj prelaženju svih granica – geografskih, državnih, jezičkih, kulturnih, i tako dalje. Za realiziranje njenih ciljeva tražena su odgovarajuća komunikacijska sredstva, pa je moguće reći da su potrebe trgovačkih odnosa presudno uticale na razvoj međunarodnih odnosa i za njih potrebnih sredstava i organizacija. Kada je cyber-prostor postao realnost savremenog svijeta, postojeći oblici organizirane trgovine su u njemu odmah našli novi i izazovan medij. U toj simbiozi cyber-prostora i međunarodne trgovine ostvaruje se snažno međusobno djelovanje. Cyber-prostor omogućuje višedimenzionalni razvoj trgovine, ali i taj razvoj međunarodne trgovine u cyber-prostoru bitno utiče na njegov razvoj i upravljanje. Pravna regulativa sa izvjesnim zakašnjenjem prati dinamiku međunarodne trgovine. Već dugi niz godina na međunarodnom planu, uočljiva su nastojanja da se postigne daljnja reforma materijalnog prava u oblasti međunarodne trgovine. Kako je to i istaknuto u Rezoluciji Ujedinjenih nacija (UN Resolution 64/236), i dokumentu "Budućnost koju želimo" (UN A/RES/66/288:2012), međunarodna trgovina i razvoj uslovljeni su postojećim sukobima i razlikama među zakonskim rješenjima različitih država u stvarima koje se tiču međunarodnog poslovnog prava. Važnost međunarodnih ekonomskih odnosa zahtijeva uspostavljanje što je moguće jasnijih i predvidljivijih normativnih pravila u ovom području.

Povezanost ekonomskih odnosa sa inostranstvom sa različitim nacionalnim pravima i autonomnom međunarodnom regulativom, nesporazumi oko temeljnih instituta ugovornog prava, složenost izvora prava i relativna uslovljenost nacionalnim pravnim sistemima, samo su neke od dimenzija ovog kompleksnog pravnog područja. S obzirom na postojanje različitih pravnih rješenja ugovornog prava, postavilo se kao opravdano pitanje pravne sigurnosti ugovornih partnera u međunarodnoj trgovini.

2. PРАВNA SIGURNOST I PREDVIDLJIVOST

Pravna sigurnost i predvidljivost izuzetno su bitni za poslovne ljude, jednako kao i "stvaranje vrijednosti iz ugovora". Poslovni ljudi žele pravnu predvidljivost i pravnu sigurnost koju im unificiranost pravnih rješenja u potpunosti pruža. Ugovor je mehanizam za izgradnju čvrste veze između poslovnih partnera (Siedel, Haapio, 2010). Juridički posmatrano, prodaja predstavlja pravni posao kojim se normativno uređuje i pod zaštitu države stavlja razmjena robe za novac. Na ovaj način ekonomski promet biva nagrađen pravnim - razmjenom vlasničkih prava na robu za vlasništvo na novcu (Trifković, et al. 2009). Pravno gledajući

ugovor je međunarodni ako u trenutku zaključenja ugovora stranke imaju pripadnost različitim državno-pravnim porecima ili da u zaključenju ili izvršenju ugovora postoji "dodir teritorija pod raznim suverenitetima" (Trifković, et al. 2009).

Nužni korak u kreiranju sigurnog međunarodnog poslovanja predstavlja veoma složeno pitanje njegove adekvatne pravne regulative koje se kroz cijelu historiju trgovine pojavljivalo kao *conditio sine qua non* razvoja međunarodnog poslovanja. Početak procesa unifikacije ugovornog prava se vezuje za kraj tridesetih godina prošlog stoljeća kada je 1929. godine Ernst Rabel (Rabel, 1952), njemački profesor prava, predložio izradu unifikovanog prava međunarodne prodaje. Na Međunarodnom institutu za unifikaciju privatnog prava (UNIDROIT) 1934. godine formirana je komisija koja je dobila zadatak da izradi elaborat uniformnog prava međunarodne prodaje. Komisiju su činili eksperti iz zemalja sa najrazvijenijim sistemom privatnog prava (Engleska, Francuska, Njemačka, Skandinavija, ULIS overview: 2013; Hellwege:2018; Petrič:2008).

Prijedlog nacrtu dokumenta usvojen je 1939. godine, ali je početak II svjetskog rata prolongirao ove aktivnosti (ULIS overview:2013). Nastavak unifikacije je uslijedio 1951. godine, formiranjem dvije komisije na osnovu čijih prijedloga su donesene dvije Haške konvencije: Konvencija o jednoobraznom zakonu o međunarodnoj prodaji (Convention relating to a Uniform Law on the International Sale of Goods, ULIS:1964) i Konvencija o jednoobraznom zakonu o zaključivanju ugovora o međunarodnoj prodaji (Convention relating to a Uniform Law on the Formation of Contracts for the International Sale of Goods, ULFC:1964). Obje konvencije stupile su na snagu 1972. godine. Od 1966. godine dalje kreiranje uniformnog prava međunarodne prodaje preuzima komisija Ujedinjenih nacija za međunarodno trgovinsko pravo (UNCITRAL) koja 1980. godine donosi Konvenciju UN o međunarodnoj prodaji robe (United Nations Convention on Contracts for the International Sale of Goods, CISG:1980, poznatu kao Bečka konvencija). Ovom Konvencijom se uspjelo integrisati dva haška Jednoobrazna zakona u jedinstven akt (Hellwege:2018).

Bečka konvencija, iako je donesena 1980. godine, stupila je na snagu 1. januara 1988. Potrebno je naglasiti da je Bečka konvencija, od trenutka njenog donošenja, bila prihvaćena od strane samo 11 država, svakog geografskog regiona, bez obzira na stepen ekonomskog razvoja, kao i od strane svih većih pravnih, društvenih i ekonomskih sistema (Explanatory note United Nations doc. V.89-53886:1989). Od tada taj broj stalno raste. Do februara 2019. godine Bečku konvenciju je ratifikovalo 89 zemalja (CISG status:2019). Među njima su SAD,

EU kao i skoro sve države članice EU, s tim da Irska i Ujedinjeno Kraljevstvo, nisu na listi članica (Hayward, Zeller, Baasch: 2018).

Praktične posljedice ovakvog rješenja su velike. Bečka konvencija je *de facto* uspostavila jedinstveno pravo prodaje, što nije pošlo za rukom ostalim Konvencijama i pokušajima kodifikacija ove oblasti (Trifković, et al. 2009). Dovoljno je istaći podatak da danas 80% svih međunarodnih transakcija je zaključeno u režimu Bečke konvencije (Anderson:2015), te da je u pitanju pravni instrument koji podržava i čiju primjenu osigurava sudska i arbitražna praksa već više od 30 godina (Jovičić, Vukadinović & Jovičić:2011). Potrebno je naglasiti da Bečka konvencija nakon ratifikacije od države potpisnice postaje dio domaćeg zakonodavstva, Bosna i Hercegovina joj je pristupila temeljem sukcesije (Trifković, et al.:2009).

Ciljevi kojima su se rukovodili prilikom njenog donošenja su prevazilaženje razlika između anglosaksonskih i kontinentalnih sistema u ovoj oblasti; i stvaranje jedinstvenog sistema zaključivanja ugovora koji može da neutrališe razlike u nacionalnim pravima, bez obzira kojem sistemu pripadaju (Schroeter: 2018). Ona predstavlja do sada najuspješniji rezultat dugogodišnjih pokušaja unificiranja međunarodnog ugovornog prava (Kazuaki:2002).

Bečka konvencija dispozitivnim pravilima reguliše obaveznu fazu zaključivanja ugovora. Unutar njih su uređena tri glavna instituta: ponuda, prihvata i perfekcija ugovora. Odredbe Konvencije su po pravilu dispozitivne. Stranke ih mogu izričito ili prećutno mijenjati, odnosno isključiti, ukoliko to normom Konvencije nije izričito zabranjeno (čl. 6). Konvencija ima i svoja ograničenja (Yasutoshi:2018). Konvencija ne reguliše: punovažnost ugovora, prelazak svojine, deliktnu odgovornost za štete od stvari, opšti dio ugovornog prava koje su zbog svog karaktera u većoj mjeri podvrgnute režimu imperativnih nacionalnih propisa. Ona također ne reguliše ni pitanja uređena ranijim međunarodnim sporazumima, kao ni za pitanja na koja su pojedine potpisnice stavile rezerve (Goldštajn: 1981; Vilus:1981; Draškić:1987). Kako smo naveli, bez obzira na uspješnost u ostvarivanju postavljenih ciljeva, Konvencija nije mogla da zadovolji sve interese (Hellwege:2018).

Potrebno je spomenuti da je 2005. godine Generalna skupština Ujedinjenih nacija u daljenjem pokušaju unifikacije međunarodnog ugovornog prava usvojila Konvenciju UN o upotrebi elektronske komunikacije u međunarodnim ugovorima (UN A/60/21:2005) (dalje: Konvencija o e-ugovorima), inspirisana rješenjima i uspjehom Bečke konvencije i oslanjajući je na nju. Ona je predstavljala dugo

očekivani nastavak do tada prisutne „soft law“ regulacije ove oblasti kroz regulativu model zakona i to: Model zakonom o elektronskoj trgovini (UNCITRAL:1996) i Model zakonom o elektronskim potpisima (UNCITRAL:2001).

Konvencija o e-ugovorima, imala je za cilj da omogući pravnu sigurnost u međunarodnim ugovorima zaključenim posredstvom sredstava elektronske komunikacije. Kao što smo ranije istakli Konvencija o e-ugovorima predstavlja napor za daljim izjednačavanjem prava u ovoj oblasti. Konvencija o e-ugovorima je pisana pod uticajem Bečke konvencije i njom je pokušano prilagođavanje rješenja Bečke konvencije iz 1980. godine novim tehnologijama i oblicima poslovanja. Konvencija je otvorena za potpisivanje od 16. januara 2006. godine i dosad je ovu Konvenciju potpisalo samo 18 država a ratificirana od samo 11 država, među kojima nema država Evropske Unije niti Sjedinjenih Američkih Država (Status: United Nations Convention on the Use of Electronic Communications in International Contracts:2019). Iz navedenog vidljivo je da Konvencija nije ostvarila očekivanja daljnje uspješne unifikacije po uzoru na Bečku konvenciju.

3. MOGUĆNOST REFORME MEĐUNARODNE PRODAJE

Kako je poznato, arhitektura modernog svijeta sve od Vestfalskog mira 1648. godine (Treaty of Westphalia: 1648) građena je na suverenitetu nacionalnih država, što znači na teritorijalnoj nadležnosti državnih vlasti. Ni na samom početku ta suverenost pojedine države u njenim teritorijalnim granicama nije bila moguća pa ni zamišljena kao postojanje jednog i zatvorenog subjektiviteta koji bi bio dovoljan sebi. Iako su nacionalne teritorije i njihove granice usvojene kao nužni faktori definiranja međunarodne arhitekture, odnosi političkih i ekonomskih subjekata u okviru tih granica, što znači i različiti oblici razmjena preko granica, smatrani su i realizirani kao nužni zahtjevi. U skladu s tim, pravljene su različiti dogovori i ugovori, te uspostavljene organizacije za njihovo provođenje i nadziranje. Ta nužnost je osnova tog što se naziva međunarodnim odnosima, međunarodnim pravom, međunarodnom trgovinom pa posljedično i međunarodnim principima, i tome slično. U vezi s tim nastale su i brojne međunarodne organizacije i institucije.

Kao što smo ranije naveli osnovni cilj razvoja ugovornog prava je olakšanje međunarodnog prometa robe i usaglašavanje nacionalnih zakonodavstva koja važe u pojedinim zemljama. S obzirom da je odnos međunarodnog i državnog ugovornog prava izuzetno složen, za njegovo utvrđivanje prethodno pitanje glasi: Da li je međunarodno ugovorno pravo „nacionalno“ ili „nadracionalno“ pravo?

Preovladava prvo gledište, jer svaka država kroz ratifikaciju međunarodnih konvencija ugrađuje norme međunarodnog prava u svoj nacionalni sistem, države suvereno odlučuju o preuzimanju ili neprihvatanju pojedinih izvora međunarodnog prava pa samim tim i međunarodnog ugovornog prava (Trifković, et al.:2009). Sankcionisanje povreda pravila međunarodnog ugovornog prava na osnovu bilo sudske, bilo arbitražne odluke vrši se, u krajnjem slučaju, od strane nadležne države, ukoliko je ta odluka u skladu sa međunarodnim javnim poretom dotične države (Trifković, et al.:2009).

Međutim zavisnost međunarodnog ugovornog prava ne znači i njegovu zavisnost od konkretnog nacionalnog ugovornog prava. Sklapanje međunarodnih konvencija je tradicionalni način unifikacije prava na regionalnom i globalnom nivou. Korišćenje međunarodnih konvencija kao instrumenata unifikacije ima određene nedostatke. Prvo, teško je doći do saglasnosti o materijalno-pravnim rješenjima, s obzirom na polazne razlike u pravnim sistemima, rad na unificiranom tekstu je često neefikasan i dugotrajan, problemi prilagođavanja primjeni unificiranog prava, često veliki vremenski razmak između potpisa, ratifikacije i stupanja na snagu akta, izbjegavanje najrelevantnijih država u datoj oblasti da ratifikuju pojedine konvencije, te zavisnost primjene konvencija od volje njenih potpisnica, te i favorizovanje sopstvenog prava od strane pregovarača. Predstavnici mnogih država, pogotovo onih koje imaju veliku moć i uticaj, dolaze na međunarodne konvencijske pregovore sa duboko usađenim vjerovanjem u superiornost sopstvenog prava (Stanivuković 2001:57-92).

Temeljni problem je kako izraditi specifične kategorije i koje pravne tehnike primijeniti za prevazilaženje razlika među pojedinim nacionalnim pravima, a koje mogu funkcionisati u svim nacionalnim sistemima (Hellwege:2018). U načelu, pravna pravila se lakše usklađuju na regionalnoj nego na univerzalnoj osnovi, prvo, zbog toga što su razlike u pravnim sistemima između država istog regiona obično manje, i drugo, zbog toga što je privredni interes regiona kao cjeline dovoljno jak da nadvlada interese pojedinih država za očuvanjem vlastitih pravnih tradicija, dok se isti stepen zajedničkih interesa teže postiže na globalnom planu.

U području ugovornog prava razlike između sistema anglosaksonskog i evropsko-kontinentalnog prava su veoma značajne. Neki instituti *common law* ugovornog prava potpuno su nepoznati u evropskom pravnom naslijeđu. Veoma je značajna razlika i u shvaćanju načela savjesnosti i poštenja, koje je u većini kontinentalnih pravnih sistema služi "moralizaciji" ugovornih odnosa i zabrani zlouporabe prava (Schwenzer, Ingeborg, Leisinge:2007). Suprotno, u *common law* sistemu u ugovornim odnosima ne postoji opća obaveza načela savjesnosti i

poštenja. Ovakav se stav od *common law* sljednica obrazlaže činjenicom da takav generalni princip otvara vrata pravnoj nesigurnosti i arbitrarnosti kod tumačenja ugovornih obaveza. Značajne su i razlike u shvaćanju pojma i posljedica povrede ugovora (Hellwege:2018). Razlike nadalje su prisutne: u formalnim pretpostavkama za nastanak ugovora, razlike u pravilima o vezanosti ponudom, razlike u pravilima o trenutku nastanka ugovora, razlike u određivanju uzroka nevaljanosti ugovora, u opsegu *culpa in contrahendo*, razlike u određivanju mjesta ispunjenja ugovorne obaveze, razlike u uvjetima za prestanak obaveza kompenzacijom, te razlike u zastarnim rokovima (Trifković, et.al:2009). Dodatno je potrebno naglasiti da razlike ne postoje samo između evropsko-kontinentalnog i anglosaksonskog sistema prava, već čak i kod pojedinih kontinentalnih nacionalnih ugovornih prava gdje postoje značajna područja neslaganja i drugačijih pristupa istim problemima (Trifković, et al.:2009).

Neki autori smatraju da je za uspješno daljnje unificiranje ugovornog prava prava nužna pretpostavka utvrđivanje zajedničke jezgre (*common core*), tj. jedinstvenog privatnopravnog ugovornog okvira, zajedničkog za sve pravne sisteme (Schroeter:2018). U temelju te ideje leži uvjerenje da usprkos značajnim razlikama postoje i brojne sličnosti i poveznice između nacionalnih prava država svih pravnih sistema koje omogućavaju da se pronađe ova, tako potrebna, zajednička jezgra. Kako ističe Lando (Lando:1998), koji je kreirao načela evropskog ugovornog prava „najznačajnije su svakako sličnosti u glavnim ideološkim postavkama, što usprkos razlikama na kraju često dovodi do istih ili sličnih rezultata u sudskom rješavanju pravnih problema" (Lando:1998). Pitanje je da li postoje takve poveznice, temeljne pravne vrijednosti ugovornog prava na globalnom nivou? Tamo gdje nema općeprihvaćenih zajedničkih rješenja nema prostora daljnjoj unifikaciji.

ZAKLJUČNA RAZMATRANJA

Bečka konvencija UN o međunarodnoj prodaji robe je nesumnjivo najznačajniji i nezaobilazni izvor prava međunarodne prodaje robe i ona predstavlja do sada najuspješniji rezultat unificiranja međunarodnog ugovornog prava. Konvencija je rezultat dugog procesa pregovaranja i usaglašavanja. U praksi se pokazalo da je veoma teško postići konsenzus među državama. Ostaje otvoreno pitanje da li je moguće postizanje međunarodnog pravnog konsenzusa o pitanjima koja ove konvencija nije obuhvatila? Kako smo naveli, bez obzira na uspješnost u ostvarivanju postavljenih ciljeva, Konvencija nije mogla da zadovolji sve interese. Zbog toga je i dozvoljeno posebno ratifikovanje Dijela II i Dijela III (čl. 92 BK). Ista činjenica ukazuje da je i tada postojala teškoća oko usaglašavanja postojećih

rješenja Konvencije, što može ukazivati na rizike budućih pokušaja uspješne reforme ugovornog prava. Potrebno je istaći da za razliku od pristalica unifikacije, prisutna su i pravna mišljenja da treba zadržati postojeće različitosti i poštovati specifičnosti pojedinih prava, a da se problemi koji iz toga proizlaze za funkcioniranje međunarodne trgovine mogu riješiti na zadovoljavajući način primjenom pravila međunarodnog privatnog prava u područjima u kojima nema općeprihvaćenih niti kompromisno ispregovanih rješenja. Temeljni argumenti koji se pri tom ističu jesu nepomirljivost različitosti ne samo u pravnim pravilima nego i u socijalnim, kulturnim i ekonomskim prilikama pojedinih država, te da razlike između nacionalnih prava nisu stvarna i ozbiljna prepreka funkcioniranju međunarodne trgovine, prvenstveno iz razloga jer se uglavnom radi o razlikama u dispozitivnim pravilima koje stranke u ugovorima mogu otkloniti svojim sporazumom. Nezaobilazno je pitanje da li smo dosegli maksimum u reformi i unifikaciji ugovornog prava donošenjem Bečke konvencije? Dodaju li se tome pitanja kompatibilnosti pravnih sistema, prevazilaženje njihovih različitih pristupa, te nalaženje zajedničke terminologije, iskustva i jezika, svako obećanje pravne reforme ugovornog prava pokazuje se kao najsloženiji mogući zadatak.

LITERATURA

- Anderson, Michael (2015) Contract Law: How the CISG Affects Your International Transactions https://www.axley.com/publication_article/contract-law-how-the-cisg-affects-your-international-transactions
- Convention relating to a Uniform Law on the Formation of Contracts for the International Sale of Goods (ULFC) (The Hague, 1964)
- Convention relating to a Uniform Law on the International Sale of Goods (ULIS) (The Hague, 1964)
- Draškić, Mladen (1987) Međunarodna prodaja prema uniformnim pravilima i uporednom pravu. - Izdanje "Exportpres" i Institut društvenih nauka, Beograd
- Explanatory Note by the UNCITRAL Secretariat on the United Nations Convention on Contracts for the International Sale of Goods (1989) *United Nations document V.89-53886 (June 1989)*
- Goldštajn, Aleksandar (1981) "Uvod" za "Komentar Konvencije Ujedinjenih nacija o međunarodnoj prodaji robe, Zagreb: Informator, str.V-XI.
- Hayward, B., Zeller, B., & Andersen, C. B. (2018). The CISG and the United Kingdom - exploring coherency and private international law. *International and Comparative Law Quarterly*, 67(3), 607–641.
- Hellwege, Phillip (2018) Understanding Usage in International Contract Law Harmonization, 66 *American Journal of Comparative Law* 127-174.

- https://uncitral.un.org/en/texts/ecommerce/conventions/electronic_communications
- Jovičić, K., Vukadinović, S., & Jovičić, K. (2011). 30 GODINA KONVENCIJE UN O UGOVORIMA O MEĐUNARODNOJ PRODAJI ROBE. *Strani Pravni život*, 55(1), 143-172.
- Kazuaki Sono (2015), Secretary of UNCITRAL, The Vienna Sales Convention: History and Perspective u Petar Sarcevic & Paul Volken eds., International Sale of Goods: Dubrovnik Lectures, Oceana (1986), Ch. 1, 1-17 <https://www.cisg.law.pace.edu/cisg/biblio/sono.html>
- Lando, O. (1998). The Common Core of European Private Law and the Principles of European Contract Law. *Hastings International and Comparative Law Review*, 21(4), 809-823.
- Petrič, Silvija (2008) Uvod u načela europskog ugovornog prava (Landova načela), Zbornik Pravnog fakulteta Sveučilišta u Rijeci 29 (1), 335-370
- Rabel, Ernest (1952) The Hague Conference on the Unification of Sales Contract, I AM. J. OF COMP. L. 58, 61
- Schroeter, Ulrich G., (2018), *Does the 1980 Vienna Sales Convention Reflect Universal Values? The Use of the CISG as a Model for Law Reform and Regional Specificities*, 41 Loy. L.A. Int'l & Comp. L. Rev. 1 (2018).
- Schwenger, Ingeborg and Leisinger, Benjamin. (2007) *Ethical values and international sales contracts*. In: Commercial law challenges in the 21st century: Jan Hellner in memoriam. Stockholm, pp. 124-148.
- Siedel, J. George, Haapio, Helena (2010) Using Proactive Law for Competitive Advantage, American Business Law Journal, Volume 47
- Stanivuković, Maja (2001), Instrumenti unifikacije i harmonizacije prava i njihov odnos prema kolizionim normama, s posebnim osvrtom na Načela europskog ugovornog prava, Zbornik referata sa savetovanja Načela europskog ugovornog prava i jugoslovensko pravo, Kragujevac, str. 57-92
- Status: United Nations Convention on the Use of Electronic Communications in International Contracts (New York, 2005) https://uncitral.un.org/en/texts/ecommerce/conventions/electronic_communications/status
- Summary of the Decisions of the Committee appointed by the Council for the unification of the Law of Sale and approved at the sessions of the Committee (1933) Etudes IV, Vente, doc. 62a <https://www.unidroit.org/french/documents/1933/etude04/s-04-62a-f.pdf>
- The United Nations Convention on Contracts for the International Sale of Goods (CISG; the Vienna Convention, Bečka konvencija), 1980. Bosna i Hercegovina je preuzela CISG temeljem sukcesije SI.I.RBH2/92, SI.I.RBH 13/94)

- Trifković Miloš, Simić Milić, Trivun Veljko, Silajdžić Vedad i Fatima Mahmutćehajić (2009) Međunarodno poslovno pravo, Ekonomski fakultet u Sarajevu.
- UN (2012) The Future we want, A/RES/66/288
<https://sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf>
- UN Resolution (2010) A/RES/64/236 Implementation of Agenda 21, the Programme for the Further Implementation of Agenda 21 and the outcomes of the World Summit on Sustainable Development
<https://undocs.org/en/A/RES/64/236>
- UNCITRAL Model Law on Electronic Commerce (1996) with additional article 5 bis as adopted in 1998
https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce
- UNCITRAL Model Law on Electronic Signatures (2001)
https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_signatures
- United Nations Convention on the Use of Electronic Communications in International Contracts (New York, 2005) UN A/60/21
- Vilus, Jelena (1981) Komentar Konvencije Ujedinjenih nacija o međunarodnoj prodaji robe, Zagreb: Informator
- Yasutoshi, Ishida (2018) CISG Article 79: Exemption of Performance, and Adaptation of Contract Through Interpretation of Reasonableness — full of sound and fury, but signifying something, Pace International Law Review, Volume 30, Issue 2, Article 3

Web stranice

- http://avalon.law.yale.edu/17th_century/westphal.asp (Treaty of Westphalia (1648))
- http://www.uncitral.org/uncitral/en/uncitral_texts/sale_goods/1980CISG_status.html
- <https://sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf>
- https://treaties.un.org/pages/ViewDetails.aspx?src=IND&mtdsg_no=X-18&chapter=10
- https://uncitral.un.org/en/texts/ecommerce/conventions/electronic_communications
- <https://www.unidroit.org/ulis-overview>
- https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce
- https://unctad.org/meetings/en/SessionalDocuments/ares67d196_en.pdf

VIENNA CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS: WHERE TO NEXT?

Abstract

For many years, there have been attempts at the international level to find the most efficient methods of overcoming legal obstacles in the area of international sale of goods and various regional values and other particularities. However, in practice it has proved to be rather difficult to reach the consensus among states on the model and method of unification. The UN Vienna Convention on Contracts for the International Sale of Goods is certainly the most significant and imperative source of law of international sale of goods, and it represents the most successful result of unification of international contract law so far. The Convention is the result of a long process of negotiations and harmonisation. It is necessary to point out that the Vienna Convention has been adopted by “each geographic region and all major legal and economic systems”, and that nowadays, two thirds of all international transactions are concluded within the regime of the Vienna Convention. It remains an open question whether an international legal consensus can be reached on the issues that the Convention has not covered. The goal of this paper is to present and explain the importance of the reform of international contract law, advantages, disadvantages and the possibility of further unification of international contract law at the global level.

Key words: *UN Convention on Contracts for the International Sale of Goods, international sale of goods, unification of law, international contract law*

TRŽIŠNA ORIJENTACIJA PORODIČNIH PREDUZEĆA U BOSNI I HERCEGOVINI

Emir Kurtović

Ekonomski fakultet Univerziteta u Sarajevu

Denis Berberović

Ekonomski fakultet Univerziteta u Sarajevu

Emir Ferhatović

Ekonomski fakultet Univerziteta u Sarajevu

1. Uvod

Popularnost "fenomena" tržišne orijentacije, najbolje se ogleda u definiciji (značenju i važnosti) navedenog koncepta. Pionirska definicija tržišne orijentacije, veže se za 1990-tu godinu u autore Kohlia i Jaworskog, koji navedeni pojam opisuju kao marketing koncept koji podrazumijeva široko organizovano generisanje tržišnih informacija koje se odnose na postojeće i potencijalne potrebe kupaca, te njihovo slanje između organizacionih dijelova uz široko organizovani odgovor na iste. Veoma je važno navesti i definiciju autora Narvera i Slatera (1990), koji tržišnu orijentaciju poistovjećuju sa organizacionom kulturom koja na najefektivniji i najefikasniji način generiše neophodna ponašanja za stvaranje superiornih uslova za kupce što za posljedicu ima kreiranje superiornih performansi za kompaniju.

Još jedan od razloga rasta popularnosti tržišne orijentacije, u posljednja tri desetljeća, zasigurno jeste činjenica da sve poslovne aktivnosti, kompanije svoju valorizaciju imaju na tržištu (kroz broj kupaca i njihovu lojalnost da iznova kupuju proizvode i usluge), te da je jedini način kreiranja superiornih potrošačkih vrijednosti poslovanje zasnovano na znanju izvedenom iz potrošačkih i konkurentskih analiza. Dodamo li prethodno navedenoj konstataciji, rezultate relevantnih istraživanja u kojima se tržišna orijentacija opisuje kao jedan od glavnih faktora unapređenja poslovnih performansi (uz veoma važnu ulogu menadžmenta u njenoj implementaciji), i više je nego jasno kolika je njena važnost u savremenom poslovanju kompanija.

Što se tiče uloge i važnosti top menadžmenta u implementaciji tržišne orijentacije kompanija, značajno je naglasiti rezultate istraživanja autora Jaworskog i Kohlia (1993) koji su sklonost ka tržišnoj orijentaciji i izbjegavanju

rizika okarakterisali kao determinante navedene varijable. Avlonitis i Gounaris (1997) su došli do statistički značajnih rezultata koji ukazuju na negativan odnos averzije ka preuzimanju rizika top menadžmenta i tržišne orijentacije kompanija. Locander i ostali (2002) su mišljenja da top menadžeri kroz svjesnost i razumijevanje koncepta, te sklonost ka preuzimanju rizika, predstavljaju glavne nosioce uspostavljanja tržišne orijentacije u kompanijama. Hashim i Bakar (2011) navode da ponašanje top menadžmenta koje se ogleda u prihvatanju promjena tj. sklonosti ka tržišnoj orijentaciji i prihvatanju rizika, statistički značajno i pozitivno utiče na stepen tržišne orijentacije kompanija. Aguinis i Glavas (2012) se slažu sa konstatacijama prethodnih autora, te jasno ukazuju na pozitivan uticaj sklonosti top menadžmenta ka tržišnoj orijentaciji na stepen implementacije navedenog koncepta u kompanijama.

2. Koncept i definicija tržišne orijentacije

Pojavljivanje tržišne orijentacije u literaturi desilo se devedesetih godina 20. stoljeća. Dvije publikacije - djela Kohlija Jaworskija te Narvera i Slatera imali su značajan utjecaj na literaturu toga razdoblja vezanu za problematiku marketinga. Publikacije su sadržavale prve pristupe definisanju tržišne orijentacije, razvoju mjernih metoda i prijedloge približavanja tržišne orijentacije organizacijskoj implementaciji. Tržišna orijentacija proglašena je implementacijom marketinškog koncepta. Velika važnost tržišne orijentacije ogleda se u tome da primjena ovog koncepta ima pozitivan efekat na performanse kompanije (Tomaskova, 2007).

Osim definicije samog tržišno orijentisanog usmjerenja, fokus je usmjeren na odnos tržišne orijentacije i performansi kompanije, načine i metode mjerenja tržišne orijentacije i njegove implementacije u kompanijama. No, objavljene studije imaju različite rezultate i tumačenja. Neke se slažu da tržišna orijentacija povećava sticanje i distribuciju tržišnih informacija, druge tvrde suprotno. Većina dostupnih studija se, manje-više slaže sa orijentacijom prema kupcima, orijentacijom na konkurenciju i međufunkcionalnom koordinacijom kao najvažnijim elementima tržišne orijentacije (Tomaskova, 2007).

Kohli i Jaworski su ponudili mnogo definicija tržišne orijentacije. Najpoznatiji je (Tomaskova, 2007): "Tržišna orijentacija je organizacijska generacija tržišne inteligencije koja se odnosi na trenutne i buduće potrebe kupaca, širenje inteligencije kroz odjele i organizacijsku reakciju na nju." S druge strane, Narver i Slater definišu tržišnu orijentaciju na sljedeći način (Tomaskova, 2007): "Tržišna orijentacija sastoji se od tri komponente ponašanja: orijentacija prema klijentima,

orijentacija prema konkurentima i interfunkcionalna koordinacija - i dva kriterija odlučivanja: dugoročni fokus i profitabilnost."

Istovremeno, zadaća marketinške funkcije najprije je bila detaljno razumijevanje tržišta kako bi se osiguralo da kompanija proizvodi robu i usluge potrebne i željene od strane potrošača (Webster, 1992). Ova percepcija se počela mijenjati krajem 1970-ih i 1980-ih godina, kao koncept strateške poslovne jedinice (engl. *Strategic Business Unit*, skraćeno SBU). Iako je marketing postao decentralizirana funkcija u mnogim velikim kompanijama, nije sasvim jasno da li je rezultat uvijek bio pojačana efikasnost marketinga. Međutim, globalna konkurencija je rezultirala sve većom pojavom proizvoda po nižoj cijeni (Webster, 1992). Tokom 80-ih godina postali su novi oblici poslovnih organizacija koje naglašavaju partnerstva između kompanije, više vrsta vlasništva i obrazaca. Njih karakteriše fleksibilnost, specijalizacija i naglasak na upravljanje odnosima umjesto tržišnim transakcijama (Webster, 1992). U radu Daya i Wensleya (1983) ističe se da je dolazak osamdesetih zahtijevao značajnu evoluciju u planiranju, koja je s druge strane, predstavila priliku za marketing kako bi ponovno potvrdila svoje tradicionalne utjecaje.

Kako tvrde Bello i Holbrook (1995), autori opisuju marketinški koncept na različite načine. Felton (1959) je definisao marketinški koncept kao "stanje uma organizacije koje insistira na integraciji i koordinaciji svih marketinških funkcija, i čiji je osnovni cilj stvaranje maksimalne dobiti dugoročnog rasta". Barksdale i Darden (1971) primijetili su da se marketinški koncept temelji na dva pojma: potrošačima i profitu. Kotler i Zaltman (1971) navode da "u marketinškom konceptu napori moraju biti usmjereni na otkrivanje želja ciljanog tržišta, a zatim stvaranje dobara i usluga kako bi ih zadovoljili". McNamara (1972) navodi da je "marketinški koncept filozofija poslovnog upravljanja, zasnovana na prihvatanju potreba cijele kompanije za orijentisanost prema klijentima, profitnu orijentaciju i prepoznavanje važnih uloga marketinga u komuniciranju potreba tržišta". McCarthy i Perreault (1984) su naglasili da "marketinški koncept znači da bi organizacija trebala usmjeriti sve svoje napore na zadovoljavanje njezinih kupaca - na dobit". Dvije glavne karakteristike svih navedenih definicija su: orijentacija na korisnika (tj. zadovoljiti potrebe kupaca) i mjerenja (dobit, udio na tržištu, stepen rasta prodaje, organizacijski ciljevi sl.). U smislu savremene marketinške misli, ova načela se nazivaju orijentacija prema klijentima, odnosno usmjeravanje na profit i integralni pristup marketinškoj orijentaciji (Lusch & Laczniak, 1987).

One kompanije koje su orijentisane na kupce, stvorile su neke strategije na tržištu, uskladile dizajn organizacijske strukture i provode svoje strategije kroz

vrednovanje zaposlenika. Takve kompanije također posjeduje vještine za razumijevanje i reagovanja na želje i potrebe kupaca (Vutete, 2016). Neki rezultati provođenja tržišne orijentacije obuhvataju lojalnost kupaca, pozitivne kritike od strane kupaca, poboljšanje novčanih tokova kompanije, smanjeni troškova marketinga i servisiranja, a na kraju i povećanje profitabilnosti i vrijednost dioničara kompanije (Gray i Hooley, 2002).

3. Mjerenje tržišne orijentacije

Shodno komponentama marketinške orijentacije, orijentacija na kupce, orijentacija na konkurenciju i interfunkcionalna koordinacija (Narver i Slater, 1990), definisana je i skala merenja nivoa marketinške orijentacije nazvana MKTOR. U pitanju je sedmostepena Likertova skala koja ima 15 iskaza koji se ocjenjuju, pri čemu je svaki nivo skale precizno definisan. Nakon sprovedenog ocjenjivanja, jednostavnom aritmetičkom sredinom se utvrđuje nivo marketinške orijentacije svake komponente. Iskazi su u formi sadašnjeg vremena i daju svojevrsni presjek trenutnog, činjeničnog stanja. Analizom sadržaja utvrđeno je da MKTOR skala pre naglašava orijentaciju na kupce čak dvostruko više od preostale dvije komponente, pa se prema njemu ova skala može posmatrati kao mjera orijentacije na kupce prije nego mjera sveobuhvatne marketinške orijentacije.

Kritika MKTOR skale ogleda se i u razmimoilaženju definicije marketinške orijentacije Narvera i Slatera (1995) koja ističe da je to kultura koja (1) prioritizuje profitabilno kreiranje superiorne vrijednosti za kupca razmatrajući interese ostalih stejkholdera i (2) nudi norme za ponašanje u skladu sa razvojem organizacije i važnim tržišnim informacijama. Gauzente (1999) ističe da se u konceptu mijerenja marketinške orijentacije ne uočava dimenzija kulture niti dimenzija stejkholdera.

Kohli, Jaworski i Kumar (1993) su autori koji su kritikujući MKTOR skalu definisali novu mjeru marketinške orijentacije kao i način njenog izračunavanja. Prema ovim autorima, marketing orijentacija je organizaciona sklonost ka generisanju tržišnih obavještenja sa tržišta koje se odnose na postojeće i buduće potrebe kupaca, dijeljenje ovih informacija unutar organizacije, kako horizontalno tako i vertikalno i organizacione aktivnosti (responzivnost) koje su u skladu sa ovim ključnim informacijama. Osnovne karakteristike ove skale ogledaju se u: širem fokusu na ključne tržišne informacije, ne samo na one koje se odnose na kupce, i sticanju interfunkcionalne koordinacije u skladu sa ovim informacijama i fokus na aktivnostima, prije nego na efektu koji se postiže. Oni su definisali petostepenu

Likertovu skalu marketinške orijentacije od 20 iskaza koji se grupišu u tri faktora. Ovi faktori predstavljaju komponente marketinške orijentacije prema Kohli i Jaworskom (1990). Na ovoj skali specificirane su samo krajnje vrijednosti, a skala se skraćeno naziva MARKOR skala. Gauzente (1999) ističe da se MARKOR skala više usmjerava na dimenzije kulture nego MKTOR skala, iako su im komponente veoma slične. Također, MARKOR skala kao ključnu organizacionu dimenziju uzima dijeljenje tržišnih obaveštenja i interfunkcionalnu koordinaciju pa na ovaj način evaluira organizacionu reaktivnost i proaktivnost. Sa formalnog aspekta, iskazima u ovoj skali se mogu ocijeniti stavovi prema budućim potrebama kupaca.

Schlosser i McNaughton (2009) adaptiraju MARKOR i MKTOR skale organizacione marketinške orijentacije da bi iskazali karakteristike individualne marketinške orijentacije (I-MARKOR). Potrebu za mjerenjem individualne marketinške orijentacije, argumentuju činjenicom da zaposleni imaju zadatak da izgrade marketinšku orijentaciju firme kroz svoje individualne aktivnosti, pa shodno tome firma mora istraživati taj uticaj kao i intrapersonalne faktore. Ovi autori marketinšku orijentaciju pojedinaca predstavlja kao stavove i ponašanja zaposlenih kao i načine na koji oni stižu, dijele i reaguju na ključne informacije. Takođe, oni koriste dodatne tri skale individualnih orijentacija na kupce koje su definisali Brown (2002) i Kenedi (2002), a kojima se ispituje svijest o kupcima kao i odnos prema njima. Analizirajući 71 stavku, faktorskom analizom izdvojeno je 20 stavki, koje su svrstane u tri faktora: prikupljanje informacija, dijeljenje informacija i strateška reakcija. Indikatori ove tri dimenzije mjere dobru praksu na radu kao što su međusobna umreženost zaposlenih (engl. *networking*) i međusobnu komunikaciju i mogu se koristiti za mjerenje marketinške orijentacije u dinamičnim okruženjima (Schlosser i McNaughton, 2009).

4. Barijere za tržišnu orijentaciju

Istraživanje barijera tržišne orijentaciji može se podijeliti u dvije kategorije (Lloyd i dr., 1999): specifične i općenite barijere. Od pedesetih godina prošlog stoljeća niz istraživanja pokušavao je identificirati i analizirati efekat određenih specifičnih prepreka u razvoju tržišne orijentacije, kao što su pojedinačni tipovi sistema. Međutim, napredak u konceptualizaciji i mjerenju tržišne orijentacije doveo je do nekih pokušaja da se razviju općenite analize potencijalnih prepreka razvoju tržišne orijentacije. Ti se pristupi mogu podijeliti u dvije glavne skupine (Lloyd i dr., 1999): pristupi usmjereni na ljude i pristupi usmjereni na sistem.

Istraživanja ljudi, kao glavne prepreke razvoju poboljšane tržišne orijentacije, mogu se pratiti na ranoj studiji koju je Felton (1959.) razmotrio u problemu razvoja integrisanog marketinga. Felton (1959) je grupisao barijere tržišne orijentacije u četiri glavne skupine (Lloyd i dr., 1999): 1) neiskustvo rukovoditelja, 2) nepotpuna integracija funkcija, 3) nedostatak sposobnosti upravljanja, i 4) određene probleme vezane uz snagu kompanije.

Može se zaključiti da su glavna prepreka razvoju tržišne orijentacije vrijednosti, uvjerenja i pretpostavke organizacije. Slater i Narver (1995) dijele sličnu perspektivu: kritički izazov za bilo koji posao je stvoriti kombinaciju kulture i klime koja maksimizira organizacijsko učenje o tome kako stvoriti vrhunsku vrijednost kupaca, jer sposobnost učenja brže od konkurenata može biti jedini izvor održive konkurentske prednosti (Lloyd i dr., 1999).

Drugi faktor koji se najčešće navodi kao barijera tržišnoj orijentaciji je otpor ili neprikladnost strukture/sistema. Lear (1963) tvrdi da tržišna orijentacija, iako "bolje odgovara kupcu", stvara komplikacije u smislu strukture. Ruekert (1992) je analizirao organizacijske procese kao prepreku tržišnoj orijentaciji i sugerisao je da je stepen do kojeg organizacija može povećati tržišnu orijentaciju neraskidivo povezana s organizacijskim strukturama, sistemima i procesima stvorenim za održavanje. Ispitao je vezu između zapošljavanja, obuke i procesa nagrađivanja i tržišne orijentacije, zaključivši da postoje dokazi koji sugerišu važne veze (Lloyd i dr., 1999).

Liu (1995) je također ispitivao sisteme kao potencijalne prepreke tržišnoj orijentaciji i sugerisao da su organizacijski kontrolni mehanizmi povezani s tržišnom orijentacijom (Lloyd i dr., 1999). Tvrdio je da način na koji organizacija vrši kontrolu nad ljudima i procesima može predstavljati prepreku razvoju tržišne orijentacije, no njegovo je istraživanje pokazalo samo djelomičnu potvrdu. Liu (1995) je također proučavao percepciju ispitanika o glavnim ograničenjima tržišne orijentacije. Zanimljivo, daleko najveće percipirano ograničenje bilo je ograničeno vrijeme resursa. Strukturni i sistemski faktori koji raspoređuju odgovornosti i određuju opterećenja mogu djelovati (ili se smatrati da djeluju) kao prepreke razvoju tržišne orijentacije (Lloyd i dr., 1999).

Jaworski i Kohli (1993) proizvode najnapredniju obradu prethodnika prema tržišnoj orijentaciji kao osnovu za ispitivanje organizacijskih barijera. Tvrdili su da tržišna orijentacija obuhvaća tri komponente (Lloyd i dr., 1999): generisanje podataka, širenje informacija, i odgovornost, te razvili i testirali prethodne procese na tržišnu orijentaciju.

Ovi autori su otkrili su da percepcija tržišne orijentacije na vrhu uveliko utječe na svaku komponentu tržišne orijentacije. Nasuprot tome, rizik utječe samo na element reagovanja tržišne orijentacije. Konflikt zbog razlika u godinama direktno utječe na širenje tržišne inteligencije, dok povezanost utječe na sve komponente orijentacije (Lloyd i dr., 1999). U smislu organizacijskih sistema postoje mješoviti rezultati. Sistem nagrada i centralizacija utječu na sve elemente orijentacije, dok nivoi odsječka i formulisanja ne utječu na bilo kakve elemente orijentacije (Lloyd i dr., 1999).

Istraživanje Daya (1994) također pridonosi širokom proučavanju prepreka tržišnoj orijentaciji. Koristeći mogućnosti pristupa strateškom upravljanju, autor iznosi sveobuhvatnu analizu faktora koji olakšavaju šira istraživanja o preprekama tržišne orijentacije. On tvrdi da su procesi tržišnog senzora i povezivanja kupaca najrazličitije mogućnosti organizacija usmjerenih na tržište, a nedostatak takvih sposobnosti ometa razvoj tržišne orijentacije.

Wong i kolege (1989) tvrde da su najčešća prepreka tržišnoj orijentaciji funkcionalni menadžeri. Ova teorija je bila težak poduhvat u pokušaju da se promijeni tradicionalno razmišljanje i prakse ili samoprocjena osoblja unutar svojih jedinica (Lloyd i dr., 1999). Druga najčešća prepreka bila je nedostatak saradnje i koordinacije između funkcionalnih jedinica.

Sveukupno gledano, prepreke za implementaciju tržišne orijentacije dobile su ograničenu analizu. Međutim, dostupna literatura otkriva prepreke razvoju tržišne orijentacije koje su složene, međusobno povezane i brojne. Važno je da svako proučavanje barijera dijeli zajedničku temu ponašanja: studije fokusirane na ljude naglašavaju kontrolu ponašanja zaposlenika, a studije usmjerene na strukturu naglašavaju manifestacije ponašanja u obliku struktura, sistema i procesa (Lloyd i dr., 1999).

5. Razvoj porodičnih kompanija u BiH

Prema posljednim podacima, ukupan procijenjeni broj kompanija u BiH bio je oko 35 hiljada (Agencija za statistiku BiH, 2016.). Od tog broja, procjenjuje se da preko 99% njih spada u male i srednje kompanije koje su vrlo često porodične. Bitno je naglasiti da male i srednje kompanije čine okosnicu bh. ekonomije jer generišu preko 60% BDP-a i glavninu novih radnih mjesta. Zbog toga je od primarnog značaja usvajanje i implementacija principa tržišne orijentacije u okviru njihovih poslovnih aktivnosti. Međutim, ovo nije specifičnost samo bh ekonomije. Porodične firme čine jedan od ključnih temelja svjetske

ekonomije. U najrazvijenijim zemljama ostvaruju više od 50% BDP-a, stvaraju više od 60% zaposlenosti i otvaraju 75% novih radnih mjesta.

Porodična firma predstavlja pojam kojim se opisuje uključenost član(ov)a porodice u upravljanje i/ili rukovođenje kompanijom sa čime se kroz obavljanje određene privredne aktivnosti ostvaruje profit (Shanker & Astrachan, 1996). Mnogi istraživači su pokušali definisati pojam „porodične kompanije“, i fokusirali su se primarno na razlike između porodične kompanije u odnosu na ostale kompanije (Chua, Chrisman, i Sharma, 1999). Nijedna od ovih definicija još uvijek nije dobila široko priznanje ili odobrenje (Sharma, 2004). Većina definicija se fokusira na ulogu porodice u smislu određivanja upravljačkih i kontrolnih metoda koje se primjenjuju u poslovanju (Chrisman, Chua, i Lutz, 2003; Habbershon, Williams i MacMillan, 2003). Važno je naglasiti da „porodična kompanija“ i „mala kompanija“ nisu nužno analogne. Mnoge velike korporacije se smatraju porodičnim, ali većina porodičnih kompanija se smatra malom ako ima manje od 20 zaposlenih.

Dakle, većina definicija porodičnog preduzeća koje se sreću u literaturi ističu sljedeće bitne karakteristike ove vrste preduzeća: porodično vlasništvo, kontrola ili upravljanje preduzećem od strane porodice, aktivno uključivanje članova porodice u poslovanje preduzeća, te sklonost da se prenosi vodeća uloga u preduzeću sa jednih na druge članove porodice. Neke definicije su vrlo uske, shvatajući porodično preduzeće kao preduzeće u čije poslovanje su uključene dvije generacije jedne porodice, dok su druge definicije veoma obuhvatne vezujući porodično preduzeće za vlasništvo jednog ili više članova porodice. Polazeći od bitnih karakteristika, porodično preduzeće se na najopštiji način može definisati kao preduzeće u kome su dva ili više članova jedne porodice vlasnički ili na drugi način aktivno uključeni u njegovo poslovanje, kao i preduzeće koje je u vlasništvu više od jedne generacije iste porodice. Intenzitet i oblici angažovanja članova porodice u porodičnom preduzeću mogu biti veoma različiti. Osnovna karakteristika porodičnog preduzeća, iz koje proističu i druge karakteristike ovog preduzeća, kao i specifičnosti upravljanja njegovim poslovanjem, je koegzistencija porodice i posla.

Čini se da se empirijska istraživanja oslanjaju na pretpostavku da su kompanije podijeljene na one u kojima ne postoji nikakav uticaj porodične kontrole i one u kojima je prisutan apsolutni uticaj i kontrola porodice (Tsang, 2002). Međutim, čini se da većina kompanija varira u smislu stepena uključenosti porodice (Sharma, 2004). Autori Astrachan i Shanker (2003) razvili su tri operativne definicije porodičnih kompanija u smislu uključivanja porodice u proces

donošenja poslovnih odluka. Najliberalnija definicija porodičnih kompanija se oslanja na uslov da porodica ima kontrolu nad glasačkim tijelom kompanije. Definicija srednjeg ranga obuhvata kompanije kod kojih se porodica direktno uključuje u svakodnevne poslovne postupke. Najkonzervativnija definicija klasificira porodične kompanije u one koje su u vlasništvu porodice s u smislu glasačke kontrole i kod kojih je više generacija porodice uključeno u svakodnevne poslovne postupke.

Osnivanje porodičnih firmi u BiH počelo je sredinom 1980-ih godina te su u tom periodu ove firme bile nosilac privrednog rasta i razvoja u zemlji. Međutim, 20 godina nakon toga porodične firme su se počele susretati s problemom tranzicije vlasništva sa osnivača na nasljednika, ali i sa novim uslovima upravljanja – s poduzetništva na korporativno upravljanje. Dvadeset godina nakon osnivanja porodičnih firmi u BiH više od 80% njih je i dalje u vlasništvu osnivača te je za njih došlo vrijeme da restrukturiraju kompanije i prenesu upravljanje na svoje nasljednike.

Neophodno je naglasiti razliku između upravljanja kapitalom kompanije i rukovođenja kompanijom. Vlasnici upravljaju kapitalom a menadžeri rukovode kompanijom. Osnivači su i vlasnici i rukovodioci. Dakle, kada govorimo o nasljeđivanju onda razlikujemo nasljeđivanje vlasništva to jest upravljanje kapitalom preduzeća i nasljeđivanje u vođenju poslovanja preduzeća. Tako, na primjer, u zemljama koje imaju dužu istoriju porodičnih kompanija nije neuobičajeno da se naslijedi vlasništvo ali da nasljednik ne bude rukovodilac, nego da bude zaposlen. Samo 70% firmi u vlasništvu porodica preživi prenos vlasništva sa osnivača na nasljednike, a samo 5-15% firmi u Evropskoj uniji doživi prenos vlasništva na treću generaciju.

6. Metodologija istraživanja

Problem istraživanja odnosi se na bolje razumijevanje uloge top menadžera/vlasnika u kontekstu tržišne orijentacije, te identificiranje doprinosa tržišne orijentacije zadovoljstvu poslovnim performansama porodičnih bh. kompanija.

Predmet istraživanja jeste uticaj sklonosti ka tržišnoj orijentaciji i izbjegavanju rizika top menadžera/vlasnika na tržišnu orijentaciju porodičnih bh. kompanija, te uticaj tržišne orijentacije na zadovoljstvo poslovnim performansama porodičnih bh. kompanija.

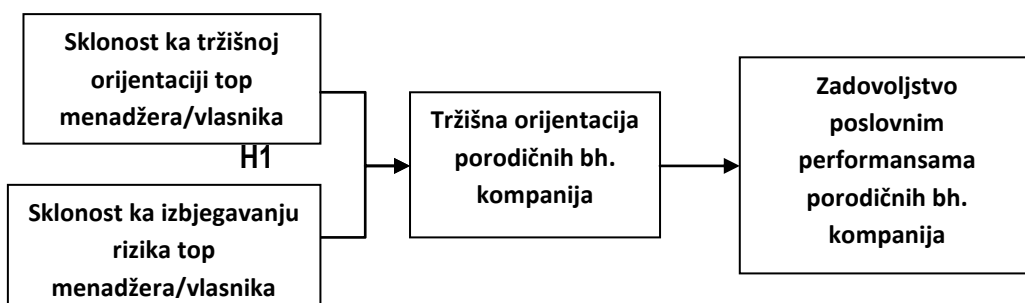
Ciljevi istraživanja bili su: a) identificirati stepen tržišne orijentacije porodičnih bh. kompanija; b) utvrditi ulogu i značaj top menadžera/vlasnika u kontekstu tržišne orijentacije porodičnih bh. kompanija; c) identificirati stepen uticaja tržišne orijentacije na zadovoljstvo poslovnim performansama porodičnih bh. kompanija; d) ponuditi menadžerske preporuke u kontekstu unapređenja tržišne orijentacije porodičnih bh. kompanija.

U skladu sa predmetnom temom i ciljevima istraživanja definisane su hipoteze:

H1: Sklonost ka tržišnoj orijentaciji i izbjegavanju rizika top menadžera/vlasnika utiče na tržišnu orijentaciju porodičnih bh. kompanija.

H2: Tržišna orijentacija pozitivno utiče na zadovoljstvo poslovnim performansama porodičnih bh. kompanija.

U nastavku je predstavljen grafički prikaz modela.



Shodno ciljevima i hipotezama istraživanja, prikupljeni su primarni podaci putem strukturiranog upitnika u okviru kojeg su korištene standardizirane skale za mjerenje definisanih varijabli istraživanja: „MARKOR Scale“ – skala za mjerenje tržišne orijentacije kompanija (Jaworski, Kohli, 2001); „Top Management Emphasis Scale“ – skala za mjerenje sklonosti top menadžmenta ka tržišnoj orijentaciji (Jaworski, Kohli, 2001); „Top Management Risk Aversion“ – skala za mjerenje izbjegavanja rizika top menadžmenta (Jaworski, Kohli, 2001); te „Firm Performance Satisfaction Scale“ – skala za mjerenje zadovoljstva poslovnim performansama (Murphy, Trailer, Hill, 1996).

Uzorak čini 156 porodičnih kompanija tj. njihovih predstavnika (vlasnici koji istovremeno obavljaju funkciju top menadžera) s aktivnim sjedištem u BiH.

Analiza prikupljenih podataka je podrazumijevala analizu pouzdanosti za potrebe analize interne homogenosti standardiziranih skala; korelaciju i regresionu analizu za potrebe analize uticaja sklonost ka tržišnoj orijentaciji i izbjegavanju rizika top menadžera/vlasnika na tržišnu orijentaciju porodičnih bh. kompanija, te uticaja tržišne orijentacije na zadovoljstvo poslovnim performansama porodičnih bh. kompanija.

7. Rezultati istraživanja

Shodno dobijenim rezultatima, iz predstojećih tabela možemo zaključiti da korištene skale imaju zadovoljavajući nivo pouzdanosti.

Tabela 1 – Pouzdanost skala za mjerenje sklonosti top menadžmenta ka tržišnoj orijentaciji i izbjegavanju rizika

SKALA	Stavke	Cronbach Alfa koeficijent u slučaju brisanja stavke	Ukupan Cronbach Alfa koeficijent
SKALA ZA MJERENJE SKLONOSTI TOP MENADŽMENTA KA TRŽIŠNOJ ORIJENTACIJI	Zaposlenicima redovno govorite da opstanak Vaše kompanije ovisi o sposobnosti prilagođavanja tržišnim trendovima.	0.604	0.706
	Zaposlenicima često govorite da vode računa o aktivnostima Vaših konkurenata.	0.630	
	Zaposlenicima redovno govorite da se moraju dodatno potruditi po pitanju prepoznavanja budućih potreba kupaca.	0.633	
	Po Vašem mišljenju zadovoljstvo kupaca je najbitnija aktivnost Vaše kompanije.	0.657	
SKALA ZA MJERENJE IZBJEGAVANJA RIZIKA TOP MENADŽMENTA	Vjerujete da je preuzimanje većeg finansijskog rizika vrijedno mogućeg ostvarenja većih poslovnih prihoda (nagrada).	0.786	0.753
	Smatrate da su eventualne greške nastale prilikom kreiranja novih proizvoda (ponuda) normalna stvar.	0.669	
	Ne volite preuzimati veliki finansijski rizik.	0.700	
	Ohrabrujete razvoj inovativnih marketing strategija, bez obzira na mogućnost njihovog neuspjeha.	0.705	
	U biznisu "igrate na sigurno".	0.685	
	Implementirate poslovne planove samo ako ste sigurni da će isti biti ostvareni.	0.697	

“Skala za mjerenje sklonosti top menadžmenta ka tržišnoj orijentaciji” ima Cronbach Alpha 0.706 dok “Skala za mjerenje izbjegavanja rizika top menadžmenta” ima Cronbach Alpha 0.753.

Tabela 2 – Pouzdanost skale za mjerenje zadovoljstva poslovnim performansama

SKALA	PODSKALE	Stavke	Cronbach Alfa koeficijent u slučaju brisanja stavke	Ukupan Cronbach Alfa koeficijent
SKALA ZA MJERENJE TRŽIŠNE ORIJENTACIJE KOMPANIJA	GENERISANJE OBAVJEŠTENJA ($\alpha = 0.764$)	U Vašoj kompaniji, sastajete se s kupcima barem jedanput godišnje da biste saznali koje proizvode ili usluge će oni trebati u budućnosti.	0.832	0.831
		U Vašoj kompaniji, redovno obavljate "in-house" istraživanja tržišta.	0.819	
		Spori ste u otkrivanju promjena u preferencijama kupaca Vaših proizvoda.	0.817	
		Tražite od Vaših krajnjih korisnika da barem jedanput godišnje ocijene kvalitet Vaših proizvoda i usluga.	0.823	
		Spori ste u otkrivanju osnovnih promjena u Vašoj grani (tj. konkurencije, tehnologije, zakonodavstva).	0.821	
		U Vašoj kompaniji periodično procjenjujete moguće rezultate promjena u poslovnom okruženju (tj. zakonodavstva) i njihov uticaj na kupce.	0.827	
	DISEMINACIJA OBAVJEŠTENJA ($\alpha = 0.792$)	Barem jednom kvartalno organizujete sastanke na kojima razgovarate o tržišnim trendovima i razvoju tržišta.	0.826	
		Zaposlenici iz marketinga u Vašoj kompaniji, provode dosta vremena u razgovoru sa zaposlenicima iz drugih finansijskih odjela o budućim potrebama kupaca.	0.823	
		Kada se nešto važno desi Vašem glavnom kupcu ili tržišnom segmentu, cijela kompanija sazna za to u kratkom periodu.	0.821	
		Podaci o zadovoljstvu Vaših kupaca se odašiljaju i prenose svim nivoima u kompaniji na uobičajen način.	0.824	

		Kada jedan odjel sazna nešto važno o konkurenciji, on to sporo prenosi na ostale odjele u kompaniji.	0.831	
	RESPONSIVNOST ($\alpha = 0.721$)	Potrebno Vam je jako mnogo vremena po pitanju odlučivanja kako da se odgovori na konkurentske promjene cijena.	0.812	
		Skloni ste, iz nekih razloga, da ignorišete promjene u potrebama Vaših kupaca za proizvodima i uslugama.	0.832	
		Periodično razmatrate i ocjenjujete napore i aktivnost na razvoju proizvoda kako biste bili sigurni da su oni u skladu sa željama kupaca.	0.820	
		Nekoliko odjela periodično zajednički planiraju odgovore na promjene koje se dešavaju u Vašem poslovnom okruženju.	0.827	
		Ako bi glavni konkurent pokrenuo intenzivnu kampanju usmjerenu prema Vašim kupcima, Vi biste trenutačno odgovorili.	0.820	
		Aktivnosti različitih odjela u Vašoj kompaniji su dobro koordinirane.	0.818	
		Pritužbe i žalbe Vaših kupaca nemaju odjeka u Vašoj kompaniji.	0.832	
		Čak i da imate sjajan marketing plan, Vi vjerujete da ne biste bili u stanju da ga implementirate na odgovarajući način.	0.819	
		Kada saznate da bi kupci željeli da modifikujete Vaše proizvode i usluge, ostali odjeli će učiniti značajne napore da to i ostvare.	0.834	

"Skala za mjerenje tržišne orijentacije kompanija" ima zadovoljavajući Cronbach Alpha 0.831.

Tabela 3 – Pouzdanost skala za mjerenje tržišne orijentacije kompanija

SKALA	Stavke	Cronbach Alfa koeficijent u slučaju brisanja stavke	Ukupan Cronbach Alfa koeficijent
SKALA ZA MJERENJE ZADOVOLJSTVA POSLOVNIM PERFORMANSAMA	Vaša kompanija je generalno zadovoljna povratom na investicije.	0.864	0.877
	Vaša kompanija je generalno zadovoljna povratom na kapital.	0.861	
	Vaša kompanija je generalno zadovoljna povratom na imovinu.	0.857	
	Vaša kompanija je generalno zadovoljna rastom prodaje.	0.867	
	Vaša kompanija je generalno zadovoljna rastom broja zaposlenika.	0.855	
	Vaša kompanija je generalno zadovoljna rastom tržišnog udjela.	0.863	
	Vaša kompanija je generalno zadovoljna povratom na prodaju.	0.857	
	Vaša kompanija je generalno zadovoljna neto profitnom maržom.	0.886	
	Vaša kompanija je generalno zadovoljna bruto profitnom maržom.	0.866	

“Skala za mjerenje zadovoljstva poslovnim performansama” ima Cronbach Alpha 0.877.

U skladu sa definisanim hipotezama istraživanja kod kojih se nastojalo utvrditi, da li sklonost ka tržišnoj orijentaciji i izbjegavanju rizika top menadžera/vlasnika utiče na tržišnu orijentaciju, što za posljedicu ima veći stepen zadovoljstva poslovnim performansama porodičnih kompanija u BiH, prilikom obrade prikupljenih podataka korištene su metoda Pearsonove korelacije i linearne proste regresije. Metoda Pearsonove korelacije je korištena prilikom preliminarne analize povezanosti definisanih varijabli istraživanja i njihove opravdanosti uključivanja u regresioni model. Dobijeni rezultati su u nastavku prezentirani tabelarno.

Tabela 4 – Povezanost varijabli istraživanja

Pearsonova korelacija N = 402	SKLONOST TOP MENADŽERA/VLASNIKA KA TRŽIŠNOJ ORIJENTACIJI	IZBJEGAVANJA RIZIKA TOP MENADŽERA/VLASNIKA	TRŽIŠNA ORIJENTACIJA A PORODIČNIH KOMPANIJA	ZADOVOLJSTVO POSLOVNIM PERFORMANSAMA PORODIČNIH KOMPANIJA
SKLONOST TOP MENADŽERA/VLA SNIKA KA TRŽIŠNOJ ORIJENTACIJI	1	R = - 0.186 (p = 0.020)	R = 0.470 (p = 0.000)	R = 0.215 (p = 0.007)
IZBJEGAVANJA RIZIKA TOP MENADŽERA/VLA SNIKA	R = - 0.186 (p = 0.020)	1	R = - 0.382 (p = 0.000)	R = - 0.164 (p = 0.041)
TRŽIŠNA ORIJENTACIJA PORODIČNIH KOMPANIJA	R = 0.470 (p = 0.000)	R = - 0.382 (p = 0.000)	1	R = 0.291 (p = 0.000)
ZADOVOLJSTVO POSLOVNIM PERFORMANSAMA A PORODIČNIH KOMPANIJA	R = 0.215 (p = 0.007)	R = - 0.164 (p = 0.041)	R = 0.291 (p = 0.000)	1

Shodno dobijenim rezultatima možemo zaključiti da postoji statistički signifikantna korelacija (povezanost) između definisanih varijabli istraživanja, i to konkretno: pozitivna povezanost između sklonosti ka tržišnoj orijentaciji top menadžera/vlasnika i tržišne orijentacije porodičnih kompanija ($R = 0.470$, $p = 0.000 < 0.05$), negativna povezanost između sklonosti ka izbjegavanju rizika top menadžera/vlasnika i tržišne orijentacije porodičnih kompanija ($R = - 0.382$, $p = 0.000 < 0.05$), te pozitivna povezanost između tržišne orijentacije i zadovoljstva poslovnim performansama porodičnih kompanija ($R = 0.291$, $p = 0.000 < 0.05$). Navedeno opravdava korištenje regresione analize čiji su rezultati predstavljeni tabelarno u nastavku.

Tabela 5 – Rezultati testiranja prve hipoteze

Prosta regresiona analiza N = 402	ZAVISNA VARIJABLA: TRŽIŠNA ORIJENTACIJA PORODIČNIH KOMPANIJA			
	B	Std. greška	t	p
Constant	1.981	0.194	10.195	0.000
NEZAVISNA VARIJABLA: SKLONOST TOP MENADŽERA/VLASNIKA KA TRŽIŠNOJ ORIJENTACIJI	0.352	0.053	6.611	0.000
R = 0.470				
R ² = 0.221				
Adjusted R ² = 0.216				
F = 116.636; p = 0.000 < 0.05				
Constant	4.388	0.227	19.346	0.000
NEZAVISNA VARIJABLA: SKLONOST TOP MENADŽERA/VLASNIKA KA IZBJEGAVANJU RIZIKA	- 0.376	0.073	- 5.127	0.000
R = - 0.382				
R ² = 0.146				
Adjusted R ² = 0.140				
F = 26.284; p = 0.000 < 0.05				

U oba slučaja su zabilježeni statistički signifikantni rezultati, i to konkretno: sklonost ka tržišnoj orijentaciji top menadžera/vlasnika objašnjava 22,1% promjena u tržišnoj orijentaciji porodičnih kompanija ($R^2 = 0.221$), te sklonost ka izbjegavanju rizika top menadžera/vlasnika objašnjava 14,6% promjena u tržišnoj orijentaciji porodičnih kompanija ($R^2 = 0.146$) - uz napomenu da se radi o negativnom uticaju. Također, dobijeni rezultati ukazuju na formiranje sljedećih regresionih modela ($p < 0.005$):

Tržišna orijentacija porodičnih kompanija = 1.981 + 0.352 x Sklonost top menadžera/vlasnika ka tržišnoj orijentaciji+ ϵ

Tržišna orijentacija porodičnih kompanija = 4.388 - 0.376 x Sklonost top menadžera/vlasnika ka izbjegavanju rizika + ϵ

Regresioni modeli ukazuju da se s povećanjem sklonosti top menadžera vlasnika ka tržišnoj orijentaciji (izbjegavanju rizika) za vrijednost 1, povećava (smanjuje) tržišna orijentacija porodičnih kompanija za 0.352 (- 0.376). Na osnovu dobijenih rezultata prihvatamo prvu hipotezu istraživanja: "Sklonost ka tržišnoj orijentaciji i izbjegavanju rizika top menadžera/vlasnika utiče na tržišnu orijentaciju porodičnih kompanija u Bosni i Hercegovini".

Tabela 6 – Rezultati testiranja druge hipoteze

Prosta regresiona analiza N = 402	ZAVISNA VARIJABLA: ZADOVOLJSTVO POSLOVNIM PERFORMANSAMA PORODIČNIH KOMPANIJA			
	B	Std. greška	t	p
Constant	1.738	0.346	5.025	0.000
NEZAVISNA VARIJABLA: TRŽIŠNA ORIJENTACIJA PORODIČNIH KOMPANIJA	0.398	0.105	3.780	0.000
R = 0.291				
R ² = 0.085				
Adjusted R ² = 0.079				
F = 14.292; p = 0.000 < 0.05				

U ovom slučaju tržišna orijentacija objašnjava 8,5% promjena u zadovoljstvu poslovnim performansama porodičnih kompanija (R² = 0.085). Također, dobijeni rezultati ukazuju na formiranje sljedećeg regresionog modela (p < 0.005):

Zadovoljstvo poslovnim performansama porodičnih kompanija = 1.981 + 0.352 x Tržišna orijentacija porodičnih kompanija+ ϵ

Regresioni modeli ukazuju da se s povećanjem tržišne orijentacije za vrijednost 1, povećava zadovoljstvo poslovnim performansama porodičnih kompanija za

0.398. Na osnovu dobijenih rezultata prihvatamo drugu hipotezu istraživanja: "Tržišna orijentacija pozitivno utiče na zadovoljstvo poslovnim performansama porodičnih kompanija u Bosni i Hercegovini".

8. Zaključak

Ovaj rad se bavi pitanjem tržišne orijentacije porodičnih kompanija u BiH. Nakon teoretskog dijela, prikazano je istraživanje urađeno među 156 porodičnih kompanija. Istraživanje je imalo za cilj i da utvrdi stepen uticaja tržišne orijentacije na zadovoljstvo poslovnim performansama porodičnih bh. kompanija. Na posmatranom uzorku ispitanika utvrđeno je da postoji statistički signifikantna korelacija između definisanih varijabli istraživanja, i to: pozitivna povezanost između sklonosti ka tržišnoj orijentaciji top menadžera/vlasnika i tržišne orijentacije porodičnih kompanija, negativna povezanost između sklonosti ka izbjegavanju rizika top menadžera/vlasnika i tržišne orijentacije porodičnih kompanija, te pozitivna povezanost između tržišne orijentacije i zadovoljstva poslovnim performansama porodičnih kompanija.

Istraživanje je pokazalo da veća sklonost ka tržišnoj orijentaciji top menadžera utiče na povećanje tržišne orijentacije porodičnih kompanija, i veća sklonost ka izbjegavanju rizika top menadžera utiče na smanjenje tržišne orijentacije porodičnih kompanija. Također, porastom stepena tržišne orijentacije raste i zadovoljstvo poslovnim performansama porodičnih kompanija u Bosni i Hercegovini, odnosno smanjenje stepena tržišne orijentacije smanjuje i zadovoljstvo poslovnim performansama. Rezultati istraživanja su u skladu sa ranijim istraživanjima koje su proveli (Kwaku, 1997; Pelhan, 2000; Grinsten, 2000; Nur i dr, 2014; Salyova, 2015; Celik i Zehir, 2017).

Marketinška orijentacija važan je prediktor uspjeha porodičnih kompanija, te dijelom osigurava lojalnost i povezivanje sa korisnicima, a posljedično i uspjeh proizvodne inovacije. U tom smislu odgovorna i proaktivna tržišna orijentacija je orijentisana na korisnika, i ona je prisutna u najuspješnijim porodičnim kompanijama. Stoga se menadžerima malih kompanija preporučuje orijentacija na korisnike. S druge strane primjena marketinške orijentacije ne garantuje i porast prihoda, koji većina analiziranih kompanija posmatra kao faktor vlastitog uspjeha. Većina kompanija ima umjerenu marketinšku orijentaciju i posluje na tržištu fizičkih lica već 10-20 godina. S tim u vezi može se zaključiti da jaka i previše usmjerena marketinška orijentacija, odnosno prevelik fokus na postojeće korisnike može postati i slabost kompanije i rezultirati smanjenjem prihoda.

REFERENCE

- Astrachan, J. H., & Shanker, M. C. (2003). Family businesses' contribution to the U.S. economy: A closer look, *Family Business Review*, 16(3), 211–219.
- Avlonitis, G. i Gounaris, S. (197), Marketing orientation and company performance: a comparative study of industrial vs. consumer goods companies, *Industrial Marketing Management*, 26(5).
- Barksdale, H.C: i Darden, B. (1971), Marketer's Attitudes Toward the Marketing Concept, *Journal of Marketing*.
- Bello, D. C., i M. B. Holbrook (1995), Does an Absence of Brand Equity Generalize Across Product Classes?, *Journal of Business Research*, 34(2).
- Chua, J. H., Chrisman, J. J., i Sharma, P. (2003). Succession and nonsuccession concerns of family firms and agency relationship with nonfamily managers, *Family Business Review*, 16(2), 89-108.
- Chaganti R. i Sambharya, R.B. (1987), Strategic Orientation and Characteristics of Upper Management, *Strategic Management Journal*, 8(4).
- Chrisman, J. J., Chua, J. H., & Litz, R. A. (2003). Commentary: A unified perspective of family firm performance: An extension and integration, *Journal of Business Venturing*, 18(4), 467-472.
- Day, G. S. (1991), *Market-Driven Strategy: Processes for Creating Value*. New York: The Free Press.
- Day, G. S. i Wensley, R. (1983), Marketing Theory with Strategic Orientation, *Journal of Marketing*, 47.
- Day, G. S. (1994), The Capabilities of Market-Driven Organizations, *Journal of Marketing*, 58.
- Felton, A.P. (1959), Making the Marketing Concept Work, *Harvard Business Review*, 37.
- Fullerton, R. (1988), How Modern Is Modern Marketing? Marketing's Evolution and the Myth of the "Production Era", *Journal of Marketing*, 53(1).
- Gray, B. J., i Hooley, G. J. (2002), Guest editorial: Market orientation and service firm performance - a research agenda, *European Journal of Marketing*, 36(9/10).
- Habbershon, T. G., Williams, M. L., & MacMillan, I. (2003). A unified systems perspective of family firm performance, *Journal of Business Venturing*, 18(4), 451-465.
- Jaworski, B.J. i Kohli, A. (1993), Market Orientation: Antecedents and Consequences, *Journal of Marketing*, 57(3).
- Kohli A., i Jaworski, B.J. (1990), Market Orientation: The Construct, Research Propositions, and Managerial Implications, *Journal of Marketing*, 54.

- Lloyd, V.K., et al. (1999). A genetic and molecular characterization of the garnet gene of *Drosophila melanogaster*, *Genome*, 42(6).
- Locander, W.B. i dr.(2002), Developing a Leadership-Rich Culture: The Missing Link to Creating a Market-Focused Organization, *Journal of Market-Focused Management*, 5(2).
- Lusch, R. i Lacznia, G.R. (1987), The Evolving Marketing Concept, Competitive Intensity and Organizational Performance, *Journal of the Academy of Marketing Science* 15(3).
- McCarthy, E. J., i Perreault, W. D. (1984), Basic marketing: A managerial approach, Homewood, Ill: R.D. Irwin.
- McNamara, C.P. (1972), The Present Status of The Marketing Concept, *Journal of Marketing*, 36(1).
- Naver, J.C. i Slater, S.F. (1990), The effect of a market orientation on business profitability, *Journal of Marketing*, 54(4).
- Narver, J.C. i Slater, S.F. (1990), The effect of a market orientation on business profitability, *Journal of Marketing*, 54(4).
- Pelham, A.M. (2000), Market orientation and other potential influences on performance in small and medium-sized manufacturing firms, *Journal of Small Business Management*, 38(1).
- Robertson, R. (1995), Glocalization: Time-Space and Homogeneity-Heterogeneity. In: Featherstone, M., Lash, S. and Robertson, R., Eds., *Global Modernities*, Sage Publications, London, 25-44.
- Ruekert, R. W. (1992), Developing a Market Orientation: An Organizational Strategy Perspective, *International Journal of Research in Marketing*, 9(3).
- Schlosser, F. and McNaughton, R. B. (2009). Using the I-MARKOR scale to identify market-oriented individuals in the financial services sector, *Journal of services*, 23(4):236-248.
- Shanker, M.C. i Astrachan, J.H.(1996), Myths and Realities: Family Businesses' Contribution to the US Economy— A Framework for Assessing Family Business Statistics, *Family businessreview*, 9(2), Summer 1996 © Family Firm Institute, Inc.
- Shanker, M. C., & Astrachan, J. H. (1996). Myths and realities: Family businesses' contribution to the U.S. economy—a framework for assessing family business statistics, *Family Business Review*, 9(2), 107-122.
- Tomaskova, E. (2007), The Current Models of Market Orientation, *European Research Studies Journal*, vol. 0(3-4).
- Tsang, E.W. K. (2002). Learning from overseas venturing experience: The case of Chinese family businesses, *Journal of Business Venturing*, 17, 21-40.
- Webster, F.E. i dr. (1992), The changing Role of Marketing in Corporation, *Journal of marketing*, 56(4).

FROM CHARITY AND SOCIALLY RESPONSIBLE TO SHARED VALUE COMPANIES – FROM SHAREHOLDER AND STATE TO STAKEHOLDER CAPITALISM

Zlatko Lagumdžija

Sarajevo School of Economics and Business

Lamija Čeremida

Sarajevo School of Economics and Business

ABSTRACT

The purpose of this paper is to point out the reasons why companies should apply the concept of shared values. The thesis is based on the claim that the concept of shared values represents an additional engagement in the field of business, but also that it significantly contributes to maximizing the added value of the company and its business performance. Shared Value focuses on creating meaningful economic and social value - a new benefit that goes beyond the costs required for business and society as a whole. Concept of shared values defines a new role for one company, which goes beyond the traditional models of corporate social responsibility. Shared value strategies are a supportive tool for companies to strengthen society's progress through innovation, their image, their connections with consumers, and their competitive advantage. On the other hand, the concept of shared values provides the opportunity to involve other actors in achieving a significant social effect. The article presents the concept of shared value as a result of discussing and developing a new idea of social responsibility in doing business. Qualitative analysis within two identified companies in Bosnia and Herzegovina is presented with an emphasis on theoretical limitations as well.

INTRODUCTION

The role of companies in society is largely exposed to a broad debate, both, in business and the relevant academic community (Paine & Srinivasan 2019). As the companies are more involved in socially responsible activities, they have been increasingly criticized by society, which led to the loss of their legitimacy and image (Porter & Kramer, 2006). Recently, the companies are increasingly seen as one of a major cause of social, environmental and economic problems and they are required to focus their businesses more on account of the community in which they operate (Murphy, 2019). Due to these and other turbulent changes, society is becoming more aware of the large inequalities in all areas of life and business, increased poverty, the devastating effects of violent extremism and wars, the consequences of destroying living and the natural environment, climate changes and the importance of sustainable development. As a response to these changes and fluctuations, arises a new strategic business model - the concept of shared values. In general, the concept argues that companies need to develop a long-term strategy of its business by building shared values with the community in which they operate (Porter & Kramer, 2011).

The concept represents the principles of a new perception of products and markets, redefining productivity and encouraging cluster development and improvement of a local and regional business environment. These principles are based on the company's new approach in the sense that the company through its business strategy and operations recognize and respond to the needs of the community in which it operates. This includes addressing and assisting in the resolution of pressing problems, such as reducing unemployment, environmental protection, poverty eradication etc. The concept advocates the creation of shared values between the company and society by simultaneously creating economic and social value. Shared values imply involvement stakeholders, shareholders, governmental and non-governmental organizations, with the aim of improving the competitive position of both companies and the community living standards (Odia, 2018). The concept of shared values represents a company's strategic tool with which the company generates a social benefit and through innovations strengthen the progress of society, the company's image, relationships with customers or theirs competitive position.

In the last two decades, the world has been striving for sustainable development, engaging in global economic, social and political developments to improve our

standard of living, reduce unemployment and eradicate poverty³⁴. However, we live and operate in a society surrounded by volatile socio-economic and political conditions. One of the key steps towards a better future, both economically and socially, is to see the society and community we live in as individuals with all their differences but united in their values. It is because of the differences that we need to encourage companies to start looking at the "out-of-the-box" image and to be pioneers in creating an economic society of the common values of Bosnia and Herzegovina.

Porter and Kramer (2011) argue that the concept of shared values can replace corporate social responsibility approaches, as it has proven to be an ineffective tool that is "imposed from the outside" solely to build image and reputation. As such, corporate social responsibility is not a solution to the social needs that should be at the heart of the company's core business and profit maximization. It can be said that Porter and Kramer created the concept of shared values as a strategic movement that should support and enhance corporate governance in any country's economic environment.

Such claims have opened up, for many years now, a debate in the business and academia. There are two opinions on the concept of shared values. Some think Porter and Kramer are offering nothing new except giving their corporate social responsibility a new name (Machens, 2013). On the other hand, others claim that the concept of shared values can be our reality and a new chance to better manage and operate a company if it is really desired³⁵. Given that this is a new concept that has not been sufficiently explored, one of the main goals of this paper is to define and present the concept of shared values in the context of companies in more detail. In this paper, the idea of the concept of shared values evaluates, compares, and draws a parallel between two concepts: shared values and corporate socially responsible business. Particular focus is placed on aspects raised by Porter and Kramer, separating the concept of shared values from corporate social responsibility through justification, value and concepts for practical application.

Hence, this paper aims to deepen understanding the importance of applying the shared value concept in the business and the basic benefits that the company

³⁴ Independent Group of Scientists appointed by the Secretary-General, (2019). *Global Sustainable Development Report 2019: The Future is Now – Science for Achieving Sustainable Development*. United Nations, New York. Available at https://sustainabledevelopment.un.org/content/documents/24797GSDR_report_2019.pdf

³⁵ Available at: <https://sharedvalue.org/groups/shared-value-initiative-community/what%E2%80%99s-value-shared-value>

realizes from both the microeconomic and social point of view. *Specifically, the primary objective of this study is to analyze the relationship between the application of the concept of shared values in a company and non-financial business performance such as competitiveness, company image, and customer loyalty. In addition, by looking at the benefits, but also by comparing them to another similar concept of corporate social responsibility, it will seek to eliminate the dilemma of what is better for the company and society as a whole. By incorporating the basic dimensions (Kenter, 2018) of the concept of shared values through examples, it will show how to implement the concept itself, the strategies that are applied, and how a company can achieve benefits for itself and the environment in which it operates.*

Therefore, the research questions set by this study are:

RQ1. What is the difference between corporate social responsibility and shared values concept?

RQ2. What is the relationship between the concept of shared values and a company's competitive advantage?

RQ3. What is the relationship between the concept of shared values and a company's brand image?

RQ4. What is the relationship between the concept of shared values and a company's consumer loyalty?

Because of the complex nature of the CSV, the research applies a multiple-case study approach based on qualitative analysis of interviews and case materials (Aschemann-Witzel *et al.*, 2017). In our best knowledge, this study is the first multi-case study based on the CSV and its relations with CSR, company's image and consumer loyalty in the transitional economy context. The main contribution is related to analyzing a case from public sector and a case from private sector. Hence, the present study addresses the research questions conducting qualitative analysis within two identified companies in Bosnia and Herzegovina.

Literature Review

The term Corporate Social Responsibility (CSR) is most clearly explained by the World Business Council for Sustainable Development (2009): *“The corporate social responsibility of a company is the continuous commitment of the business world to behave ethically and contribute to economic development while improving the quality of life, both working and working. forces and their families,*

and the local community and society in general." Some will say that the CSR is a company's tool and business orientation implying awareness that business activities have a great impact on society and that the company adapts basic social, economic orientations and socially responsible activities by integrating them into decision making, rules and procedures (Ratković, 2009). Tatić (2008, 184) considers that the CSR in the broad sense "refers to the influence of the enterprise on society and the role of the economy in sustainable development", and that in general "it is about the enterprise taking responsibility for its activities that go beyond the sphere purely commercial interests."

It is important to emphasize that CSR implies that the company accepts responsibility towards the company and the environment in which it operates and that this responsibility is part of the company's strategy and business processes. The basic task of CSR can be explained on the pyramid of social responsibility (Figure 1) proposed by Carrol (1991).



Figure 1. Pyramid of social responsibility (Carroll, 1991, p. 39-48)

Carroll (1991) suggests that companies, regardless of their size, must be profitable, that is, have higher returns on equity per share, rising profit margins, increasing market share and winning a favorable strategic position based on differential benefits. He also believes that companies must comply with the law in the country in which they operate and that ethical responsibility refers to the voluntary alignment of their business with the moral and ethical standards of society and the community. At the top of the pyramid is philanthropic responsibility, which involves the discretionary activities of donating and sponsoring culture, education, sports and the like.

The concept of "shared value" was first mentioned in December 2006 in a Harvard Business Review article entitled "Strategy and Society: The Link between Competitive Advantage and Corporate Social Responsibility," by Michael Porter and Mark Kramer. The authors refer to the business of companies that apply the concept of corporate social responsibility, and to the constant "supervision" of governments, activists and the media, considering that companies are doing a lot to improve their activities from the aspect of social and environmental responsibility to the environment in which they operate. However, these efforts are neither efficient nor productive, for two reasons. The first one, as the authors point out, is that companies do business only to maximize profits, not attaching importance to the social community in which they do business, although it is obvious that companies and society are interdependent. Another reason is that companies view corporate social responsibility as a generalization, rather than viewing it as the most appropriate strategy.

What Porter and Kramer (2006) underline is that "*corporate social responsibility approaches are so prevalent that they are so disconnected from business as to conceal the many opportunities for a company to benefit society.*" When referring to the emergence of CSR, the authors emphasize that despite pressure from governments, activists and various non-governmental organizations, but also problems such as working conditions, non-compliance with codes of ethics, global warming, the need for environmental protection, companies simply cannot tackle these problems.

It is for these reasons that the authors offer the principle of shared values, as an integrating factor of company and society, because "*successful corporations need a healthy society. Education, health and equal opportunities for all are essential for a productive workforce*" (Porter and Kramer, 2006). These are the reasons for the emergence of shared values, which later in 2011 was translated into a concept of shared values by Porter and Kramer in Harvard Business Review article entitled "The Big Idea: Creating Common Values: How to Rebuild Capitalism and Unleash the Wave of Innovation and Growth".

This section will elaborate on the differences and similarities between the two concepts and remove some of the authors' claims that the concept of shared values is another name for corporate social responsibility (Crane, Palazzo, Spence, & Matten, 2014; Epstein-Reeves, 2012). The concept of corporate social responsibility is no longer a new concept, unlike the concept of shared values that is still emerging and developing. In the last decade, companies around the world have recognized the importance of social responsibility and the impact they

leave on society, the reputation they achieve, but also the importance of performance and results. Undoubtedly, corporate events in the business world add to the fact that a company's responsibility to the company is the strength of the business. Both concepts focus on societal needs and challenges. Still, there are some differences in them. The most visible difference, between corporate social responsibility and the concept of shared values, is in how the company views society and social problems. Although both concepts take into account the interests and needs of society and the environment, corporate social responsibility is viewed separately from the company. This means that this concept implies doing good for someone or something outside the company and having their own needs. The concept of corporate social responsibility involves recognizing social expectations that are compatible with the expectations of the company, and therefore various activities are undertaken to enhance the general social good.

On the other hand, the concept of shared values views the environment and society as part of its business model in the form that a company should work for the benefit of society which is a prerequisite for the well-being of its business. This difference triggers other differences between the two concepts. The concept of corporate social business of a company is a program that is externally driven. The main objective remains to maximize profits rather than maximize the application of the concept of corporate social business. The activities of this concept are realized through the realized profit of the company. When considering the concept of shared values, the company that implements it internalizes social responsibility, assuming it is also a way to increase productivity and make profits.

This way of doing business with both concepts is reflected in finances as well. Corporate social business activities are limited by a certain budget, while the concept of shared values of the company does not create a specific budget, but its implementation extends over the entire budget of the company, that is, covers every operational organizational aspect, and thus becomes part of the functioning and each individual activity. Corporate social business companies strive for issues that society deems important, regardless of the relationship between daily activities and needs. The company seeks to preserve the goodwill of the shareholders by meeting the various needs and requirements of interest groups. Companies that apply the concept of shared values primarily focus on the social problems that are part of their business and, as a result, manage them better and better. This can sometimes result in the company not being able to act on some global issues, such as human rights, corruption or bribery.

By applying corporate social business, companies demonstrate that they are socially responsible and practice sustainable business, by investing in safer and more environmentally friendly technologies, embracing individual social development projects by supporting selected social initiatives, emphasizing their stance against global societal issues. As a result, this concept is often seen as an instrument for creating and enhancing a company's image. Areas, where this concept is less common, are: *"integrating corporate social responsibility into risk assessment, business strategy development, corporate governance, supply chain management, and corporate social responsibility"* (Škrabalo et al., 2007). In contrast, companies using the new concept apply a strategy that goes much deeper in moral reflection. Such companies take a holistic view of sustainability issues both within themselves and in their environment and community. They pay attention to the value of profits. *"The concept of shared values generates economic value by contributing to the prosperity of the wider community, rather than distributing philanthropic activities to further illuminate the company's reputation"* (Minor and Morgan, 2011).

However, it is evident that the two concepts differ, though, through several elements. Five key elements are shown in Table 1, and that illustrate the differences between the two concepts in their applications.

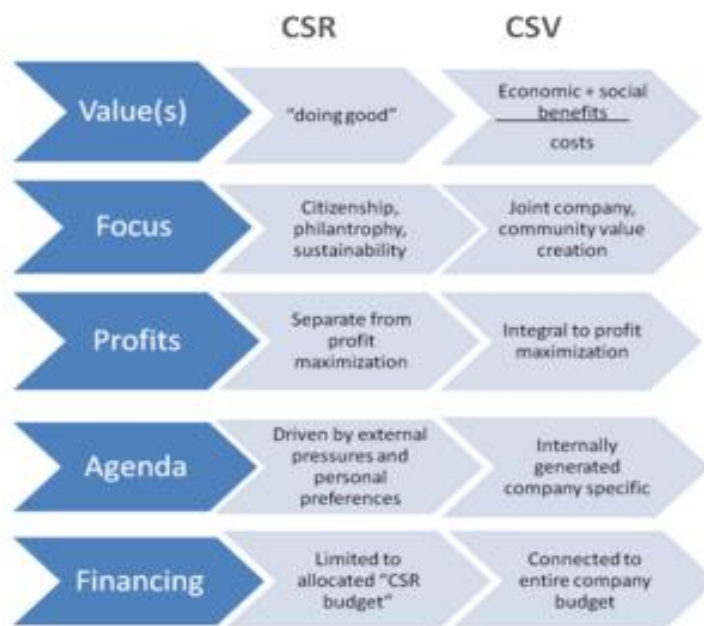


Table 1. The difference between CSR and CSV (Lapina, Borkus, & Starnicea, 2012).

The value for corporate social responsibility is "doing good", while for the concept of shared values, these are economic and social benefits over costs. The idea or focus of the concept of corporate social responsibility is based on philanthropy and sustainability, while in the other concept this focus is expanded through the creation of common value between the company and the social community. The concept of corporate social responsibility is often used as an additional activity in protecting the position of a company in the market, the concept of common values is an integral part of the company's competitive strategy. The primary goal of companies is to maximize profits. Corporate social responsibility is separate from this process, while on the other hand, the concept of shared values is integrated into the overall process of profit maximization as an additional activity (Lapina et al., 2012).

It is evident that the concept of shared values offers a completely different approach to corporate social responsibility, but also a new perspective on understanding consumers, productivity and external influences on the success of the company. This concept internalizes and incorporates social responsibility into the overall program of the company and treats it as a personal choice, not as pressure from the outside. All this is reflected in the financing and the budget, respectively, since the activities of the corporate social responsibility are limited by a predetermined amount of funds from the budget, while the second concept is permeated through all the items of financing or the budget of the company, thus becoming a part of every function and every activity of the company.

However, it should not be forgotten that the concept of shared values is still under-explored and that it must be further explored and proven in the coming period. On the other hand, the concept of corporate social responsibility has only just begun to gain a stable foothold and presence in the streams of companies, and one cannot expect companies to switch from the adopted concept to the new one suddenly.

The differences between these two concepts can be confusing, and debates about their differences are still under discussion. Organizations such as Shared Value Initiative, World Business Council on Sustainable Development, Clinton Global Initiative, Community Business and Aspen Network for Aspen Network of Development Entrepreneurs are leaders in academic debate when it comes to the differences between the two concepts, and the advantages of the concept of shared values over the concept of corporate social responsibility (Moore, 2014).

Research Methodology

Considering the complex nature of the application of the shared values concept in companies, and especially in the context of a transitional emerging economy, the study applies a multiple case study approach based on qualitative analysis of interviews and case materials. As such, this research, to our best knowledge, is the first study of its type to theoretically separate the concept of corporate social responsibility and the concept of shared values, and to identify the relationship between the application of the concept of shared values and the non-financial business performance of companies.

Case analysis is relevant when contemporary events need to be examined (Yin, 2009). Qualitative research is useful in order to gain a greater understanding of the case (Bryman and Bell, 2011). Case analysis is useful when using an in-depth interview because it provides a holistic understanding of real-life events (Yin, 2009). Through the in-depth interview method, important questions were sought during the questioning and were aligned with the semi-structural interview according to Bryman & Bell (2011). Instead of focusing on quantitative research, the intention was to gain a better understanding of a particular company context. With the use of qualitative research, it was considered that the more detailed information gathered through the interview represented the most relevant data for the purposes of this paper and hypotheses. This is supported by the thesis that when theory is underdeveloped, then case analysis is considered relevant (Scapens, 1990). This is a situation that is acceptable in this final paper, because the concept of shared values is a fairly new concept with insufficient research in this area to be able to perform quantitative measurements and tests. According to Ghauri (2004), case analysis methodology can be used to develop hypotheses for later testing. Also, an in-depth interview can be used to draw conclusions about possible causal connections (Carrie, 2007). Two companies, one from the public and one from the private sector, were identified on the basis of predefined criteria, and the semi-structured interviews with the top management were conducted. The data were analyzed using the narrative approach (McCormack, 2012).

Data collection and analysis was performed through the following steps:

- In the first step, we identified two companies, one from private sector and one from the public sector in Bosnia and Herzegovina, which represent the cases for this study. The basic criterion was that the company appeared in the public with some CSR activity in the past 6 months.

- In a second step, companies were contacted and general managers were invited to participate in the research through contact to the interview.
- In step three, framework questions for semi-structured interview were prepared.
- In the fourth step, individual interviewing was conducted
- In step five, an analysis of the data collected was done using the narrative method of analyzing the qualitative data.

Research results

Narrative inquiry or narrative analysis is a qualitative research approach in which the researcher analyzes the stories the interviewee tells. This approach helps to understand how people represent their own or their company's experiences. Since the concept of CSV is still quite unknown in the corporate environment, the narrative method is the most appropriate approach that will allow the respondent to share his or her experience when it comes to applying this concept in the company.

The questions asked to the interviewees followed the logic of the research questions. In this regard, the analysis of the data is presented below according to the research questions of this study.

What is the difference between corporate social responsibility and shared values concept?

First, the findings of the literature review implies that there is a difference between the concept of corporate social responsibility and the concept of shared values. Besides, the results of the research also support this premise. The analysis showed that a public company, while applying the concept of corporate social responsibility, nevertheless recognizes that it is not enough to deal with sponsorships and donations, and that it is extremely important to integrate the CSR process into the overall strategy of the company and not look at it separately. It is for these reasons that this company is further engaged in the effort to create shared value with society. On the other hand, an analysis of the private company's practices has shown that the concept of shared values is applicable in our country, especially from the point of view of creating value with the society. The business strategy of this company is based on the principles of the concept of common values and is at the heart of it. Both companies have achieved better productivity through employee involvement in decision-making

processes. With innovative products and services, they have been able to provide better competitiveness in the domestic market. Most importantly, both companies provide employment opportunities for those sections of the community who are marginalized (people with disabilities and visually impaired people) while building shared value.

What is the relationship between the concept of shared values and a company's competitive advantage?

The results indicate that the public company is continuously working to improve the quality of the services it supplies to its customers. Applying the element of the concept of shared values, through involvement of all employees in solving production activities. Involving all levels in the organization produces employee motivation as they are given the opportunity to be involved in the decision-making process. Changing the way, we do business and focusing on those areas that are neglected creates a common value (social and economic). The results suggest that, through the concept of shared values, all employees are part of the decision-making process, especially in terms of improving existing business models and creating new products.

The concept of competitive advantage is viewed in the literature as an advantage that a company achieves by providing higher quality products and services than its competitors in order to satisfy customers' wishes, which can be achieved by those companies that are constantly aware of changes in the market and respond quickly to competitors' trends and strategies. Chen and Tsou (2007) view the competitive advantage of the company as internal and external, with the latter measuring three indicators of estimated competitive advantage: improving competitiveness, entering new markets, and improving the quality of products and services over the competition. This kind of competitive advantage was the basis for observing this concept in the subject research. Based on this, in-depth interview questions were created that relate to the concept of competitive advantage of the company. Considering the measuring instrument offered by Chen and Tsou (2007) as well as the way to measure the concept of shared values. The intention is to determine whether the company is building a competitive position through innovative processes that are an element of the concept of shared values, and to what extent and how employees are involved in these processes. It seeks to determine the company's own position in terms of its competitive position, and whether the company applies at least one element of the concept of shared values. Efforts are made to examine the results of the company's activities in terms of the quality of products and / or services in

relation to consumers and to determine how socially responsible business contributes to the company's competitive advantage.

What is the relationship between the concept of shared values and a company's brand image?

Literature looks at the brand image from two aspects of the environment, internal and external. According to Schultz et al. (1998) internal environment represents company openness, consistency, understanding and strength, while external implies attention, trust and acceptance. For the purpose of examining brand image as an element of added value of the concept of shared values, the questions were based on measuring instruments set by Feldman et al. (2014): Good Products and Services, Good Consumer Relations, Leadership and Innovation, Good Work Environment, Ethical Business Practices, Company Responsible Environmental Practices. Considering the mentioned measuring instruments, questions were also raised. Our research confirms that companies have improved their brand image by developing awareness of the importance of delivering added value to the end consumer. Good and quality service is based on the highest quality and fast response to social needs. Also, the brand image is achieved through quality products, but also with a continuous focus on solving end-user needs and problems.

What is the relationship between the concept of shared values and a company's consumer loyalty?

For consumer loyalty, the literature considers this to be a process where customers buy more often, spend more, and become spokespersons for companies whose loyal customers are (Plazibat et al., 2015). According to Berman (2006), consumer loyalty is measured by a database or loyalty program, collected through surveys that includes questioning through surveys, focus groups, interviews. The questions in the interview were based on the previously mentioned measuring instruments. Consumer loyalty is most often measured through a loyalty program, in a way that it organizes special events for its loyal customers. Focus groups are regularly researched to gain a better understanding of what the company needs to improve in its services, so potential solutions are developed accordingly. In addition to loyalty programs, it also promotes the value of the city along with consumers through their involvement in the delivery of services. Our research confirms that the concept of shared values has helped the company to forge stronger relationships with its customers, as it maintains a constant connection with consumers through communication channels that

directly provide suggestions to the company to improve the delivery of products and services.

Following the results of our research, main propositions are defined as follows:

1. By applying the concept of shared values, a company gains a competitive advantage.
2. By applying the concept of shared values, companies strengthen their brand image.
3. By applying the concept of shared values, the company achieves greater consumer loyalty.

Conclusion

The concept of shared values should not be classified as another name of corporate social responsibility. Instead, it should be defined as a new business discipline that encompasses the same but improved level of activity as corporate social responsibility. Companies should learn how to redefine their business in relation to unmet social needs, and to constantly improve their lifestyles while enhancing their competitiveness. At the same time, NGOs should find ways to harness the power of global companies to further their missions. Charitable donations and volunteerism are important, but the real power to transform society, both locally and globally, lies in embracing new technologies, assets and know-how. Governments need to recognize the policies and policies that can guide the business world to create shared values. The governmental and non-governmental sectors should reject preconceived conclusions about balancing business and social needs. For example, control of environmental regulations should be replaced by support for the construction of innovative technology that improves environmental conditions as well as conditions for increasing competitiveness. Governments must focus on the development of small and medium-sized enterprises, or clusters, by prescribing regulations that set clear and measurable societal goals, whatever they are, and set performance standards, define stages in periods to meet those standards, invest in the manufacturing industry and give companies enough time to develop and introduce new products and services, and finally, simply align processes that are easy to understand. Analyzing domestic companies, there is a clear need to change the established customs of business.

Of course, the concept of shared values cannot solve every problem or offer solutions to every challenge that society and the world face. However, if

opportunities are identified, there is a huge scope for applying this concept, which leads to higher productivity and innovation, which, in turn, improves the social advancement and profitability of the company. A successful company needs to be surrounded by a successful company that not only creates demand, but also provides criticism that is very important for business advancement and equally important for protecting the environment. On the other hand, society needs successful companies that will offer new jobs and create a healthy environment for all members of the community. The concept of shared values recognizes that social problems may entail additional internal costs for companies, such as more efficient use of energy, raw materials and water, but also the need for training and training to compensate for gaps in education. However, this may not necessarily be a cost to the company, as it can avoid it through innovative approaches, the use of new technologies, the way it works and the approach in management. As a result, productivity increases and the company expands into the market.

At the local level, the concept of shared values takes action to address the economically disadvantaged segments of society and provides a framework for ensuring equal access to opportunities and resources. The introduction of affirmative action plans can ensure that non-privileged members of the community develop capacity and can be encouraged to take advantage of opportunities to launch business activities. In an increasingly interconnected world where one border disappears while others grow stronger, there is increasing evidence that major global challenges are emerging and crystallizing in cities, and are becoming associated with unique local factors. Accepting and unifying socio-cultural diversity provides new economic and social opportunities.

The rules of the economy should be re-examined, but this time in a way to ensure that ordinary citizens of any community benefit. Ignoring this mindset, be it in the companies, non-governmental or governmental sectors, all actors can be considered as the most responsible why this is not the case. Over the last four decades, economic policies have been reshaped to mislead as inequality and poverty become more pronounced and visible.

Although the application of the concept of common values is more demanding and engaging business for the company and represents a kind of investment, it is undoubted that this concept significantly affects the performance of the company, which is reflected in maximizing value added, as well as the financial performance of the business. It is important to note that the concept of shared values is not a finished story. It is an open process that must pass the time phase

of additional exploration, engagement and adaptation in the turbulent economic, social and environmental fields of action. Future research into this concept should go towards determining the effectiveness of the concept in B2B (business-to-business) companies, in order to confirm the thesis that the concept of shared values can be implemented in other types of companies. To begin with, in the fight for equality, respect for diversity, cohesion, inclusion, the fight against poverty, equal opportunities and rights for all, this concept can be the initial basis and example for the development of a society of shared values of any country

As the propositions in this paper is based on case analyzes and interviews conducted, it is important to emphasize the importance of further exploration of the concept of shared values, which is still in its infancy, so that these hypotheses can be empirically tested and measured. In conclusion, creation of shared values by simultaneously creating economic and social value has become part of the current debate about the need for redefining capitalism in the context of sustainable development and growing inequalities under 'umbrella' of World Economic Forum, 'Stakeholder capitalism'. Positioning private corporations as trustees of society is becoming a clear response to today's social and environmental challenges compared to western-style 'shareholders capitalism' and many emerging countries 'state capitalism' (Schwab, 2019)

References:

- Al Saifi, S. A., Dillon, S., & McQueen, R. (2016). The relationship between face to face social networks and knowledge sharing: an exploratory study of manufacturing firms. *Journal of knowledge management*, 20(2), 308-326.
- Aschemann-Witzel, J. et al. (2017) 'Key characteristics and success factors of supply chain initiatives tackling consumer-related food waste – A multiple case study', *Journal of Cleaner Production*. Elsevier Ltd, 155, pp. 33–45. doi: 10.1016/j.jclepro.2016.11.173.
- Bell, E., Bryman, A., & Harley, B. (2018). *Business research methods*. Oxford university press.
- Berman Barry (2006), *Developing an Effective Customer Loyalty Program*, University of California, Berkeley, Vol. (49), No.1
- Carrie Williams (2007), *Research Methods*, Grand Canyon University, *Journal of Business and Economic Research*;
- Carroll, A.B., (1991) *The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders*. *Business Horizons*, 34, p. 39-48.

- Chen J.S. & H.T. Tsou, (2007) Information technology adoption for service innovation practices and competitive advantage: the case of financial firms, Department of Business administration, Yuan Ze University, Chung Li, Taiwan;
- Crane, Andrew & Palazzo, Guido & Spence, Laura & Matten, Dirk. (2014). Contesting the Value of 'Creating Shared Value'. *California management review*. 56. 130-153. 10.1525/cmr.2014.56.2.130.
- Epstein-Reeves, J. (2012). What is "creating shared value"? *Forbes*. Retrieved from <http://www.forbes.com/sites/csr/2012/06/04/whatis-creating-shared-value/>
- Feldman Percy Marquina, Bahamonde Rolando Arellano, Bellido Isabelle Velasquez, (2014) A new approach for measuring corporate reputation, *Revista de Administração de Empresas*, Sao Paulo;
- Ghuri, P. (2004). Designing and conducting case studies in international business research. *Handbook of qualitative research methods for international business*, 1(1), 109-124.
- Independent Group of Scientists appointed by the Secretary-General. (2019). *Global Sustainable Development Report 2019: The Future is Now – Science for Achieving Sustainable Development*. United Nations, New York.
- Jocelyne, Daw. (2015). *Shared Value: Business at its Best!*. available at: <https://www.sharedvalue.org/groups/shared-value-business-its-best>.
- Kenter, J. O., Bryce, R., Christie, M., Cooper, N., Hockley, N., Irvine, K. N. & Raymond, C. M. (2016). Shared values and deliberative valuation: Future directions. *Ecosystem services*, 21, 358-371.
- Lapina Inga, Borkus Indra, StarniceaOlga, (2012) Corporate Social Responsibility and Creating Shared Vale: Case of Latvia, *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, World Academy of Science, Engineering and Technology, Vol. 6, No:8,
- Machens F., (2013) Impact of the concept of shared value (SV) on developing countries (Creating Shared Value), Bachelor+Master Publishing, Hamburg.
- Mccormack, C. (2012) 'International Journal of Social Storying stories : a narrative approach to in-depth interview conversations Storying stories : a narrative approach to', (April), pp. 37–41.
- Minor Dylan, Morgan John, (2011) CSR as reputation Insurance: Primum Non Nocere, *California Management Review*, vol. 53, no 3
- Moore C., (2014) Corporate Social Responsibility and Creating Shared Value: What's the Difference?, *Heifer International*, May 14., pg 4.

- Murphy B. Chris (2019), "Why Social Responsibility Matters To Business", available at: <https://www.investopedia.com/ask/answers/041015/why-social-responsibility-important-business.asp>
- Odia, J. O. (2018). Created Shared Value and Sustainable, Inclusive Development of Developing Countries. In *Value Sharing for Sustainable and Inclusive Development* (pp. 122-153). IGI Global.
- Paine S. Lynn & Srinivasan Suraj, (2019), "A Guide to the Big Ideas and Debates in Corporate Governance", *Harvard Business Review*, available at: <https://hbr.org/2019/10/a-guide-to-the-big-ideas-and-debates-in-corporate-governance>
- Plazibat Ivana, Šušak Toni, Šarić Tadija (2015), Funkcionalnost programa lojalnosti kupaca u maloprodaji, Stručni rad, UDC 659.127.6:658.87,
- Porter E. Michael & Kramer R. Mark. (2006). Strategy and Society: The Link between Competitive Advantage and Corporate Social Responsibility. *Harvard Business Review*.
- Porter E. Michael & Kramer R. Mark. (2011). The Big Idea: Creating Shared Value. *Harvard Business Review*. Reprint R1101C.
- Ratković B. Njegovan, Poslovna etika, (2009) FTN, Izdavaštvo ,Novi Sad., pg. 59-64
- Scapens, R. W. (1990). Researching management accounting practice: the role of case study methods. *The British Accounting Review*, 22(3), 259-281.
- Schultz Majken, Ervolder Lars, Hulten Janik, (1998) The integration Between Corporate Culture, Identity and Image: The Emergence of a New Industry?, Working paper, Copenhagen Business School,;
- Schwab, K. (2019). *Why we need the 'Davos Manifesto' for a better kind of capitalism*. World Economic Forum and Project Syndicate. Available at <https://www.weforum.org/agenda/2019/12/why-we-need-davos-manifesto-for-better-kind-of-capitalism/>
- Škrabalo Marina, Miošić-Lisjak Nives, Bagić Aida,(2007) Ubrzanje praksidruštveno odgovornog poslovanja -u novim zemljama članicama EU i zemljama kandidatkinjama kao sredstvo usklađivanja, konkurentnosti i društvene kohezije u EU, Izvještaj o društveno odgovornom poslovanju u Hrvatskoj: Program Ujedinjenih naroda za razvoj (UNDP), Zagreb,
- Tatić K., Menadžerska ekonomija (2008),Ekonomsk ifakultet u Sarajevu., Sarajevo, pg 184
- Williams, C. (2007). Research methods. *Journal of Business & Economics Research* (JBER), 5(3).
- Yin, R. K., & Campbell, D. T. (2009). Case study research, 2003. *Design and Methods*.

SUCCESS DESPITE LACK OF SUPPORT: LESSONS LEARNED FROM HIDDEN CHAMPIONS DOING BUSINESS IN FRAGILE BUSINESS ENVIRONMENTS

Denis Berberović

School of Economics and Business, University of Sarajevo

Merima Činjurević

School of Economics and Business, University of Sarajevo

Amra Kožo

School of Economics and Business, University of Sarajevo

Abstract

Main aim of this paper is to identify factors that contribute to the success of hidden champions in fragile business environment (FBE); i.e. business environments which are transitional, post-conflict and risky. The study is based on data collected from four South-East European countries whose context correspond to the characteristics of fragile business environment described in literature. Results indicate that hidden champions from transitional economies with fragile business environments have main characteristics of hidden champions from Simon' studies (e.g., intense and passionate leadership, innovation, strong ties with customers). However, they are portrayed with some specific traits mostly related to ownership, innovations, finance, and internationalization. Based on these specific aspects general lessons are derived for companies doing business in such environments.

Key words: hidden champions, fragile business environment, South-East Europe

1. Introduction

Successful story of German hidden champions (HC) narrated by Herman Simon has gained ground in academia and made significant contribution to the understanding of highly successful small and medium enterprises (SME) targeting niche segments. Result of the study conducted by Herman Simon exposed that Germany's international success is supported by medium-sized companies that contribute around 40% of all exports (Venohr and Meyer, 2009). Since these firms are leaders in their markets and yet they prefer to keep a low public profile, they have been named hidden champions.

According to Simon (1996a, 2009), there are three criteria a company needs to fulfill in order to be considered hidden champion: (1) to be a number one, two or three in the global market or number one on its continent in term of market share (2) to have revenue below 3 billion euros and (3) to have low public profile. Venohr and Meyer (2007) further describe hidden champions as very dynamic SMEs with a high level of internationalization and innovation. Also, according to Venohr and Meyer, these companies are worldwide leaders in specific market segments. Moreover, Simon (2012) specifies two types of strategies pursued by hidden champions, one of which is regional and the other is global, niche strategy (cited in Witt, 2015).

Witt (2015) suggests that there have been 2,769 hidden champions identified so far in 42 countries, most of them (1,307) coming from Germany. However, as Simon (1996b; p. 1) reminds us „you don't have to be German to be a hidden champion“. He further emphasizes that HCs are similar across countries (they express similar attitude toward publicity, hold comparable core values and have great employee motivation) without the intent to diminish the importance of the local environment (Simon, 1996). business environment appears to be one of the most relevant factors in conducting succesfull business operations, as following section will indicate. Therefore, relevance of business environments in which HCs from specific South-East European countries do business in a highly succesfull manner is in the focus of this paper.

2. Fragile business environment (FBE)

According to Geda (2011) fragility of environment is still a fuzzy term which has no clear definition. However, it has been used lately for implying environments which are difficult, post-conflict, transitional or post-transitional, with high economic risk, etc. Geda further claims that such environments represent difficult

surroundings for doing business. Economic policies are not completely defined, financial sectors are limited in supporting businesses due to high risk of failure, and regulatory policies are either undefined or too strict in some aspects. All this represents a significant burden for businesses.

Meanwhile, scholarly attention has been focused dominantly on how fragile business environments based on political instability influence foreign direct investment (FDI) inflow (Dimitrova and Triki, 2018). However, there is lack of academic work on domestic investments within fragile business environments; particularly successful domestic investments in fragile business environments. Examples of such investments are hidden champions which in spite of unsupportive business environment expand their business operations. Often at astonishing rates. Analysis exposed by Muñoz et al. (2017) has shown that even in mature and untransformed business environments companies such as hidden champions do business successfully. Balas Rant and Korenjak Černje (2017) claim that hidden champions do successful business even in times of recession or financial turmoil. What seems to be of utmost relevance is persistence and high commitment (Voudouris et al, 2000). An in terms of ambidextrous approach to business, hidden champions seem to manage it exemplary. Namely, they manage to be adaptive both to current and future environmental dynamics (Garaus et al, 2016). Hidden champions also tend to constantly review their competitive environments, suggests a research of Swedish hidden champions conducted by Din and colleagues (2013). Such findings have been confirmed also by a study of Polish hidden champions (Grego-Planer and Glabiszewski, 2016). It therefore follows that in spite environmental circumstances, hidden champions do manage to have not only successful but also highly expanding business operations. Following discussion sheds light on the reasons for their successful business practice in spite of environmental obstacles they face.

3. Methodology

This paper is based on data collected during the research Hidden Champions in South East Europe and Turkey. It is a meta-analysis of hidden champion case studies from four countries from South East Europe (SEE): Bosnia and Herzegovina, Croatia, Macedonia and Serbia (Yin, 2009). These countries have been selected because of specific circumstances in which their hidden champions achieve success. All four countries are considered to be FBE for SMEs. in addition to this, countries are all former Yugoslav republics which have been involved in infrastructural destruction and institutional disintegration due to dissolution of Yugoslavia and the resulting wars in 1990s. Since then the newly

emerging countries are struggling to build infrastructural and institutional networks which would ease doing business for hidden champions. In addition to this data, analysis includes preliminary findings of the second research on hidden champions in SEE, which is research in progress. Following sections contain main themes derived from 26 hidden champion companies conducting business operations in FBE. Themes were developed from interviews with managers (Braun and Clarke, 2006).

4. Data discussion

Following themes expose lessons learned from hidden champions doing business in FBE.

a. Innovation

Hallmark of hidden champions as defined by Herman Simon is their innovative approach to business. Despite specific characteristics of hidden champions from hostile business environments, innovativeness does count to one of the hallmarks of these companies as well. Research conducted among hidden champions from Bosnia and Herzegovina, Croatia, Macedonia and Serbia has shown that innovation lies at the core of these businesses as well. Yet innovation comes in different shapes. It is based on continuous desire to improve and innovate. Lumen, a candle producer from Bosnia and Herzegovina and one of the top three suppliers of Ikea, is a company which constantly strives for improvement of production process. This finding has shown to apply also for other hidden champions from the sample. Duochem, a hidden champion from Serbia producing pesticides and agrochemical products, has different product categories emerged due to the constant innovation practice. But not all hidden champions have completely developed their products. Another hidden champion from Serbia, RT-RK CBS, a company in the IT industry, has innovated already existing software solutions and made thereby tremendous success, with sales revenues increasing from 500.000 Euros in the first year of establishment, to 8 million Euros only five years later. This has been largely due to the cooperation with scientific institutions, such as universities and research centres. Similar success path has the Croatian Durante M-Kvadrat, a company which produces joint free slabs, only such licensed company in Europe. This hidden champion has developed an existing product and patented it. However, innovation is not limited only to the production process. Innovation is expanded to other business activities, such as customer relations, human resource management, research and development, marketing activities, etc, as following sections will explain.

b. Customers

Customer orientation counts among most important characteristics of hidden champions. All hidden champions have emphasized their devotion to establishing and maintaining high-quality relations with their customers. This is done in several ways. Hidden champions which sell complex products where software or hardware design is inevitable, offer expertise in customizing the product to customers' needs. One such company is Invento, from Bosnia and Herzegovina, which has developed a sophisticated bluetooth system. They customize their software for each client in order to meet their needs. Early identification of clients' needs is detrimental for developing such products and hidden champions such as Invento aspire to do so. The same applies to Ading, a Macedonian hidden champion which seeks to build strong client relations by applying a client needs early-detection system. In order to meet clients' needs in the construction industry where they are a regional leader, Ading provide in-depth services that help clients see the complete picture, and work with them to put the right product in the right place. Another important characteristic in terms of customer needs by using the early-detection system is detecting customers' needs before competitors do so. This gives hidden champions an important advantage. For hidden champions such as the Serbian Execom, this is of particular significance because their corporate strategy is completely driven by consumers' needs. Another Serbian hidden champion emphasizes creation of partnerships with customers, which helps them creating customer satisfaction and achieving long-term relationships with their customers. Although some hidden champions, like Novokabel from Serbia, emphasize that due to a larger number of customers it is not possible to have equally close relations. Still, they seek to build long-term and close relations with their core customers.

c. High quality products

Providing high-quality products is recognized as one of the major sources of competitive advantages by these hidden champions. Although product quality. Hidden champions managers are aware that improvements in product quality is not one large-scale activity; but rather a set of small, sometimes barely relevant activities which, however, lead to superior quality due to their synergetic effect. In addition to this, improvement of product quality is not only seen as a set of small-scale improvements; it is also necessary to achieve continuity in product quality improvement. In addition to superior product quality, hidden champions are aware that they need to offer competitive prices which are, in combination with higher quality, recipe for success, as most of the managers argued.

d. Owner/leadership

Role of the owner is another important success factor pointed out by hidden champions managers. Owner's constant intention to realize the vision of success has made Plastex from Bosnia and Herzegovina a success story per se. From doing business with a lorry, the company's owner has successfully done business for almost three decades, only to be currently the owner of a hidden champion company and two additional companies, all mainly export oriented. According to Durante M-Kvadrat, a Croatian hidden champion, charisma of the company's leader has resulted in motivating not only employees but also business partners. Finally, many hidden champions have mentioned that strong leadership and a proactive approach to business opportunities has led to companies gaining great success.

e. Vision & Ambition

Yet leadership of mainly owners is strongly related to vision and ambitious goals they have set for their respective companies. This has further made these companies gain the successful status of hidden champions. In the Macedonian hidden champion Konti-Hidroplast, which is a regional leader in production for polypropylene and polyethylene pipes, argue that willpower and striving for ambitious goals count among main pillars of a successful business story. They further believe that ambitious goals are of extreme importance for long-term vision. Such stance is supported by other hidden champions managers. Ambitious goals and long-term vision are important success drivers. Bodern, the Croatian hidden champion which is a regional leader in sweet ice-wine production, has been built not only by ambitious goals and vision, but also by creativity, persistence, passion, achievement, commitment, and belief in company' ideas. In other words, in order to become a hidden champion companies had defined a long-term vision which has been inspiring not only for managers but for all employees. Finally, vision encompasses future. Vision implies future. Therefore, the Serbian hidden champion Duochem, had a vision encompassing investments which took into account future regulatory requirements in the chemical business. Such visionary move has prepared the company for upcoming strict regulations in the chemical.

f. Employees

All hidden champion managers have agreed that owner's charisma, vision and corporate ambitious goals would barely lead to success if it was not for

employees. Employees are seen in hidden champions as key strategic resource, is a claim made by the Macedonian hidden champion Konti-Hidroplast. In the Bosnian-Herzegovinian hidden champion Lumen they have recognized relevance of employee motivation. Thus they continuously organize employee education which is not only intended to improve their work output; part of that education is freely selected by their employees and aims at improving their life quality. The owner of this hidden champion goes even so far to financial support his employees in times of great life challenges, such as illness, decease of family members, rites of passages, etc. By creation of appropriate work environment in the company, managers from the Macedonian hidden champion Vipro argue employees are motivated and encouraged to do their jobs but also to initiate improvements where they see it fit.

g. Know-how

Hidden champions are usually companies whose know-how is often forwarded to their daughter companies around the world. But in case of hidden champions from this group, their success is often based on know-how they have gained from their business partners. In Lumen they argue that for their success they mainly are acknowledging the support from their major client Ikea, which has instructed them to improve their products; it has also clearly instructed them how to achieve these important changes. Alma Ras, another Bosnian-Herzegovinian hidden champion, has also gained great benefit in terms of know-how coming from their West-European partners.

h. All-around offer

It has already been argued in the section on customers that hidden champions customize their offers in order to fully meet customers' needs. However, most of the hidden champions also see to provide all-around offers. This is done not only to increase customer satisfaction as it has been argued by Bosnian-Herzegovinian hidden champions Feal which is in the construction business or Invento, which is in the IT business. But it is also done in order to decrease possibilities i.e. pose barriers for existing and potential competitors. Creating one-stop shop for clients is what Duochem seeks to provide. By constructing partnership relations with their clients, they endeavour to provide all-around offers for their customers hoping to increase customer satisfaction. So far they have been very successful.

i. Investments

Despite lack of general support and particularly lack of investors who are willing to financially support innovative business ideas and solutions, hidden champions which are subject to this paper are aware of the importance of investments. Hence, they seek to continuously provide investments, no matter how difficult it is. Investments are undertaken in different business aspects. But most of the hidden champions invest in product quality in order to increase it. This is done either by investing in production process in order to improve them; by investing in raw materials; investing in employees, or, finally, by investing in research and further development, as suggested by the Serbian hidden champion Prvi partizan.

j. Branding

Crucial to hidden champions is the fact that they are mainly hidden – not widely known. This has turned out to be also one of the characteristics of hidden champions from unsupportive business environments. However, it does not imply that these companies are not aware of the benefits that brand and reputation yield. Alma Ras is one of the rare hidden champions which is widely known in the regional market. Most of the hidden champions are known mainly in their distinctive market niche. Building up a market reputation and a distinctive market position through quality awards is something that most of the hidden champions strive for.

k. Niche marketing

Specific to hidden champions is that they are focused on doing business in market niches. Focusing on a small number of clients, offering customized products or services, often even not being able to increase the size of outputs. All these are characteristics of hidden champions from unsupportive environments. DOK-ING, a Croatian hidden champion, is determined to offer its innovative and high-quality machinery to serve to a specific market niche. Another reason why these hidden champions have focused on niche product categories is because they appear to be unattractive to the competition.

l. System stability

Finally, this group of hidden champions, particularly start-ups, have argued that maintaining system stability, both in terms of production and finances counts among their major goals. This is strongly due to the lack of support they

experience in their business environments. This endeavour is claimed by most of the hidden champions to take great strength and energy from their core business activities, thereby representing a great threat.

5. Discussion and conclusion

This study focuses on hidden champions from four transitional economies in South-Eastern Europe (Bosnia and Herzegovina, Croatia, Macedonia, and Serbia). Although these countries had some of the best starting conditions in 1989 for implementing a smooth transition from a state-planned economy to a market economy, they faced difficulties in its implementation (e.g., disintegration of the Yugoslav federation in mid-1991, military conflicts, high political and economic instability). Thus, transition-related institutional changes implemented in this particular unstable political and economic environment have not favoured fast economic development (Uvalic, 2012). The challenges for business survival and growth in these economies (e.g., poor infrastructure, limited access to finance and markets, lack of institutional capacity and/or political will to build good governance) are enormous, especially for SMEs. Although one might wonder how businesses can formulate and execute strategies in such fragile business environments, our study shows that even in the fragile states global/regional niche market leading SMEs – hidden champions, are able to navigate successfully through challenging business conditions.

Overall, our study revealed that hidden champions operating in fragile business environment have much in common with hidden champions described by Hermann Simon (2009). In terms of common traits, they are led by strong, visionary, passionate leaders who are able to foster, nourish and support the entrepreneurial mindset amongst their employees. Like their counterparts from rest of the world, hidden champions coming from fragile SEE economies, are also building sustainable competitive advantage by investing in innovation, quality, and customer relations. Although their investment in research and development are lower than that of their counterparts in developed economies (e.g., Muñoz, Ripoll-i-Alcon and Berlanga Silvente, 2017; Simon, 2009), our hidden champions have critical capabilities (e.g., market-sensing capability, customer-linking capability, channel-bonding capability, network capability, absorptive capability) needed to stay ahead of their competitors at the global/regional market. For instance, the majority of analyzed hidden champions gained know-how from their business partners. Thus, the absorptive capacity defined as „the ability to recognise the value of new, external information, assimilate it and apply it to commercial ends“ (Cohen and Levinthal. 1990, p.128)

seems to be an inherent characteristic of hidden champions from laggard SEE economies. Also, the capacity to recognize new opportunities (sensing) and generate innovations (seizing) seems to be another trait of our Hidden Champions. This findings is in line with the view that “resource-picking” and “capability-building” are substitutes for each other in achieving superior performance (Makadok, 2001). Our findings show that lack of internal resources can be substituted by the company’s ability to build a bundle of interrelated capabilities.

Compared to the businesses studied by Simon (2009), hidden champions from laggard SEE economies exhibit some specific traits:

- *Rarely family owned* – These hidden champions are predominantly young privately owned companies or start-ups; only rare are family-owned and family-run businesses. As suggested by Walravens and Filipovic (2013), ownership structure does not seem to be a key success factor for Hidden Champions. These authors argue that the ownership structure of Hidden Champions can take a different form, ranging from family-owned to various types of mixed ownership, publicly quoted companies, and even joint-ventures. It must be noted that hidden champions from FBE are rarely family-owned and family-run because these economies only recently became market-oriented. It takes time until some of them will be passed from one generation to the second generation of family members for managing.
- *Sustaining innovation* – HCs from FBE are focused more on sustaining innovation rather than on radical or disruptive innovation. These incremental year-by-year improvements of products, processes or business models help them to gain and sustain a status of global/regional market leaders.
- *Self-financing* – This type of HC rely on self-financing from retained profit and owner’s funds. In terms of external financing, they are prone to use trade credit rather than bank credit. Due to difficulties in accessing the financial market in the fragile business environment, the provision of trade credit seems to be an important channel by which companies can access new capital indirectly.
- *Born-regional/born-global* – These HCs mostly pursue born-regional and born-global patterns of internalizations. The majority of hidden champions from laggard SEE economies are exporting in foreign markets which are geographical, culturally, and institutionally close to the home market. However, some of them

are true born-globals, because they focus only on foreign markets located far from the home market.

So, what specific lessons can be derived from hidden champions doing business in the economies characterized by fragility? We have identified four major lessons that can be valuable for all SMEs operating in fragile business environments.

- In business environments characterized by political and economic instability, there is an urgent need for businesses that are capable of sketching their own destiny in order to survive and prosper. Leadership with ambitious goals, high-performance employees, continuous improvements in products, process, business models, and self-financing are important building blocks of a successful SMEs.
- SMEs from fragile business environments should start internalization movement right from the earliest days of their establishment, particularly if they are narrowly focused on the business-to-business market with specific and often highly customized all around offer.
- In order for SMEs from FBE to become hidden champions, they must specify strategic thrust, i.e., narrow arenas where they will play their games, as well as defining those in which they will not participate. These arenas can be defined in terms of markets, products or technologies on which companies choose to focus on.
- If it seems that business environment does not provide an option for sustainable growth of SME in the home country, companies should be able to recognize new opportunities on regional/global markets (market sensing) and create innovations based on these opportunities (market seizing). Thus, the saying „If you don't like how the table is set, turn over the table" explains vividly the basic rule of the business game played by investigated hidden champions.

Hidden champion type of companies play a significant and important role in growth of their national economies (McKiernan and Purg, 2013). According to Muñoz et al (2017) these types of companies are an important pillar for all the economies included in so far conducted research. Bearing this in mind and respecting characteristics of environments for doing business in South East Europe, main idea of this paper was to identify underlying characteristics and draw lessons from successful business styles of hidden champions from SEE

region which operate in fragile business environments. Thereby authors hope to add to newly emerging theory on hidden champions. However, we argue for further academic research which would support theory development about these highly successful SME's. Particularly attractive seem to be additional insights from hidden champions achieving significant success even in difficult business surroundings such as FBE is.

References

- Balas Rant, M., and Korenjak Černje, S. (2017). Becoming a hidden champion: from selective use of customer intimacy and product leadership to business attractiveness. *South East European Journal of Economics and Business*, 12 (1). pp. 89-103.
- Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2). pp. 77-101.
- Dimitrova, A., and Triki, D. (2018). Does state fragility matter for foreign direct investment? Evidence from Southern and Eastern Mediterranean countries. *Management Decision*, 56 (8). pp. 1787-1803.
- Din, F., Dolles, H. and Middel, R. (2013). Strategies for small and medium-sized enterprises to compete successfully on the world market: Cases of Swedish hidden champions. *Asian Business & Management*, 12 (5). pp. 591-612.
- Garaus, C., Güttel, W. H., Konlechner, S., Koprax, I., Lackner, H., Link, K. and Müller, B. (2016). Bridging knowledge in ambidextrous HRM systems: empirical evidence from hidden champions. *The International Journal of Human Resource Management*, 27 (3). pp. 355-381.
- Geda, A. (2011). Capacity building in fragile and post-conflict states in Africa. *World Journal of Entrepreneurship, Management and Sustainable Development*, 7 (2/3/4). pp. 217-266.
- Grego-Planer, D. and Glabiszewski, W. (2016). The role of innovation in the business activity of hidden leaders of the Polish economy. *Management*, 20 (2). pp. 23-34.
- Lawson, B., and Samson, D. (2001). Developing innovation capability in organisations: a dynamic capabilities approach. *International Journal of Innovation Management*, 5. pp. 377-400.
- Makadok, R. (2001). Toward a synthesis of the resource based and dynamic capability views of rent creation. *Strategic Management* 22 (5). pp. 387-401.

- McKiernan, P. and Purg, D. (2013). *The Context of Hidden Champions. Hidden Champions in CEE and Turkey*. DOI 10.1007/978-3-642-40504-4_1, Springer Verlag Berlin Heidelberg.
- Muñoz, E.P., Ripoll-i-Alcon, J, Berlanga Silvente, V. (2017). *Hidden Champions in Spain: The Path to Successful Business Decisions*. *Revista de Métodos Cuantitativos para la Economía y la Empresa*, 24. pp. 190-208.
- Simon, H. (2009). *Hidden Champions of the 21st Century: Success Strategies of Unknown World Market Leaders*. London: Springer.
- Simon, H. (1996a). *Hidden Champions: Lessons from 500 of World's Best Unknown Companies*. Boston: Harvard Business School Press.
- Simon, H. (1996b). *You Don't Have to be German to be a "Hidden Champion"*. *London Business School, Business Strategy Review*, 1996, 7 (2). pp. 1-13.
- Uvalic, M. (2012). *Transition in Southeast Europe: Understanding Economic Development and Institutional Change*. In Roland, G. (Ed.) *Economies in Transition: Long-run View*. Palgrave Macmillan.
- Venohr, B., and Meyer, K. (2009). *Uncommon common sense: Success strategies for mid-size firms*. *Business Strategy Review*, 20(1). pp. 38-43.
- Venohr, B., and Meyer, K. (2007). *The German miracle keeps running: How Germany's hidden champions stay ahead in the global economy*. Working Paper, Berlin School of Economics, Germany.
- Voudouris, I., Lioukas, S., Makridakis, S. and Spanos, Y. (2000). *Greek Hidden Champions: Lessons from Small, Little-known Firms in Greece*. *European Management Journal*, 18 (6). pp. 663-674.
- Walravens, A., and Filipovic, N. (2013). *Three bivalent performance factors of Hidden Champions: Ownership, organizational culture and organizational governance in McKiernan, P. & Purg, D. (Eds.) Hidden Champions in CEE and Turkey: Craving out a Global Niche*. Springer, pp. 37- 52.
- Witt, A. (2015). *Global Hidden Champions: The Internationalisation Paths, Entry Modes and Underlying Competitive Advantages of Germany's and Britain's Global 'Top Three' Niche Players*, The University of Edinburgh, Doctoral Thesis
- Yin. R. K. (2009). *Case study research: Design and Methods*. 4th edition. Thousand Oaks: Sage.

Poziv za slanje radova za Zbornik radova/Sarajevo Business and Economics Review 2020.

Poštovani autori,

Želimo Vas informisati da Vaše radove možete slati za objavljivanje u narednom broju Zbornika radova/ Sarajevo Business and Economics Review 38/2020 putem elektronske platforme na linku: <http://journal.efsa.unsa.ba/index.php/sber>.

Rok za dostavu radova je **31. maj 2020. godine**, putem elektronske platforme <http://journal.efsa.unsa.ba/index.php/sber>.

S posebnim zadovoljstvom Vas podsjećamo da je Zbornik radova Ekonomskog fakulteta u Sarajevu/Sarajevo Business and Economics Review od 2007 godine uvršten u bibliografsku bazu EBSCO PUBLISHING – BUSINESS SOURCE COMPLETE (Journals & Magazines) <http://www.epnet.com/titleLists/bt-journals.xls>.

Također, od 2009. godine Zbornik radova/Sarajevo Business and Economics Review je uvršten i u CEEOL (Central and Eastern European Library) bazu (<http://www.cceol.co>).

Od 2011. godine Zbornik radova Ekonomskog fakulteta u Sarajevu/Sarajevo Business and Economics Review je uvršten i u ProQuest Business package platformu, kao jednu od najprestižnijih svjetskih baza podataka iz oblasti ekonomije i biznisa.

Biti indeksiran je veliki uspjeh za Zbornik radova/Sarajevo Business and Economics Review jer nas to čini dostupnim širokoj međunarodnoj naučnoj zajednici. Za nas, to znači dodatni angažman ali i obavezu s ciljem kontinuiranog poboljšanja kvaliteta objavljenih radova.

Svi detalji u vezi dostavljanja radova, kao i uputstva za autore će biti dostupni putem linka <http://www.efsa.unsa.ba/sber>.

U očekivanju Vaših radova srdačno Vas pozdravljamo.

Glavni urednik
Prof. dr Jasmina Selimović

**Sarajevo Business and Economics Review A Call for Papers to be
Published in the Y2020 Collection of Papers/ Sarajevo Business and
Economics Review**

Dear Authors,

Please be advised that you are kindly invited to submit your papers for publishing in Collection of Papers/ Sarajevo Business and Economics Review 38/2020 by School of Economics and Business in Sarajevo.

Deadline for submission is **May 31st** via <http://journal.efsa.unsa.ba/index.php/sber> platform.

With special pride we remind you that Collection of Papers/ Sarajevo Business and Economics Review has met the indexation criteria and since 01.01.2007. has become a part of the bibliographic base EBSCO PUBLISHING - BUSINESS SOURCE COMPLETE (Journals & Magazines) <http://www.epnet.com/titleLists/bt-journals.xls>.

Please note that since 2009 Collection of Papers/ Sarajevo Business and Economics Review has also been incorporated into CEEOL (Central and Eastern European Library) base (<http://www.ceeol.co>). Since 2011. Collection of Papers/ Sarajevo Business and Economics Review has also been incorporated into ProQuest Business Package, as one of the world's most prestigious data base regarding fields of economics and business.

By obtaining indexation and becoming available to the wide international scientific community our Collection of Papers/ Sarajevo Business and Economics Review recorded a great success. However, such positioning obliged us to invest additional efforts and work on constant improvement of the published papers' quality.

All submission details will be available at <http://www.efsa.unsa.ba/sber>, alongside with instructions for authors. The Editorial Board of Collection of Papers/ Sarajevo Business and Economics Review eagerly wait for your papers.

Until then, receive our kind regards.

Editor in Chief
Jasmina Selimović, PhD