

Ekonomski horizonti



Ekonomski fakultet Univerziteta u Kragujevcu
ISSN 1450-863X

2021 23 (3)

Randelović, S.

Hoang, L. K.

Rita, M. R.

Nguyen, A. T.

Ofogbe, N. S.

Cao, B. T.

Bošković, A.

Nugrahanti, Y. W.

Nnamani, C.

Ezuwore-Obodoekwe, C. N.

Vukanović, S.

Nguyen, D. T. T.

Kristanto, A. B.

Tran, T. M. T.

Anisiuba, C. A.

Ekonomski horizonti



Ekonomski fakultet
Univerziteta u Kragujevcu

Za Izdavača

Dekan, Petar Veselinović

Glavni i odgovorni urednik

Vlastimir Leković

Urednik

Nenad Stanišić

Sekretar Uredništva

Veljko Marinković

Lektor

Slobodan Rakić

Tehnički urednik

Slavoljub Radojević

Štamparija

InterPrint, Kragujevac

Tiraž - 200

.....
Časopis se referiše u bazama:

**SCOPUS, EconLit, Cabell's Directories,
EBSCO, DOAJ, Index Copernicus,
ProQuest - ABI/INFORM, Ulrich's Web**

.....

Izdavanje Časopisa finansijski je podržalo **Ministarstvo
prosvete, nauke i tehnološkog razvoja Republike Srbije**,
Rešenje broj: 451-03-73/2021-14/2

Kontakt

Ekonomski fakultet Univerziteta u Kragujevcu,
Liceja Kneževine Srbije 3, 34 000 Kragujevac; Tel. 034 303 546
www.horizonti.ekfak.kg.ac.rs horizonti@kg.ac.rs

Uredništvo

Zora Arsovski, Ekonomski fakultet Univerziteta u
Kragujevcu, u penziji

Lubica Bajzikova, Faculty of Management, Comenius
University, Bratislava, Slovakia

Marijan Cingula, Faculty of Economics, University of Zagreb,
Zagreb, Croatia

Angappa Gunasekaran, University of Massachusetts,
Dartmouth, USA

Harald Hagemann, University Hohenheim, Germany
Nebojša Janićijević, Ekonomski fakultet Univerziteta u
Beogradu

Svenn Are Jenssen, Bodo Graduate School of Business,
University of Nordland, Bodø, Norway

Ljubinka Joksimović, Ekonomski fakultet Univerziteta u
Beogradu

Davorin Kračun, Faculty of Economics and Business,
University of Maribor, Maribor, Slovenia

Pawel Lula, Cracow University of Economics, Cracow, Poland
Nikola Makojević, Ekonomski fakultet Univerziteta u
Kragujevcu

Srdan Marinković, Ekonomski fakultet Univerziteta u Nišu
Zorica Mladenović, Ekonomski fakultet Univerziteta u
Beogradu

Pece Nedanovski, Faculty of Economics, University of Skopje,
Skopje, F.Y.R. Macedonia

Vladimir Obradović, Ekonomski fakultet Univerziteta u
Kragujevcu

Goran Putnik, Departamento de Produção e Sistemas,
University of Minho, Guimarães, Portugal

Tomasz Rojek, Cracow University of Economics, Faculty of
Management, Cracow, Poland

Matthew Todd Royle, Langdale College of Business, Valdosta
State University, Georgia, USA

Marko Slavković, Ekonomski fakultet Univerziteta u
Kragujevcu

Dejan Spasić, Ekonomski fakultet Univerziteta u Nišu

Violeta Todorović, Ekonomski fakultet Univerziteta u
Kragujevcu

Andreas Zins, Department of Tourism and Hospitality
Management, Vienna University of Economics and Business
Administration, Wien, Austria

ČASOPIS IZLAZI TRI PUTA GODIŠNJE - u aprilu, avgustu i decembru

ISSN 1450-863X

eISSN 2217-9232

UDC 33

COBISS.SR-ID 158022663

Ekonomski horizonti



Ekonomski fakultet
Univerziteta u Kragujevcu

SADRŽAJ

Volumen 23 Sveska 3

Septembar - Decembar 2021.

UVODNIK

Vlastimir Leković 205-206.

IZVORNI NAUČNI ČLANCI

Fiskalna decentralizacija i lokalna politika javnih investicija u Republici Srbiji

Saša Ranđelović i Svetlana Vukanović 207-224.

doi:10.5937/ekonhor2103207R

Taxation and economic growth: A regression analysis based on a new classification

Lich Khac Hoang, Binh Tan Cao, Kim My Le and Dung Thi Thuy Nguyen 225-240.

doi:10.5937/ekonhor2103225H

Autonomija i angažovanost zaposlenih u digitalnoj eri: Moderatorska uloga rada na daljinu

Aleksandra Bošković 241-257.

doi:10.5937/ekonhor2103241B

Peer-to-peer lending, financial bootstrapping and government support: The role of innovation mediation on MSME performance

Maria Rio Rita, Yeterina Widi Nugrahanti and Ari Budi Kristanto 259-274.

doi:10.5937/ekonhor2103259R

PREGLEDNI ČLANCI

Trade facilitation performance influences on ASEAN trade flows

Anh Thu Nguyen and Thi Mai Thanh Tran 275-288.

doi:10.5937/ekonhor2103275N

The relationship between the corporate social responsibility and the cost of the capital of the companies listed on the Nigerian stock exchange

Nyore Sandra Ofogbe, Chidiebere Nnamani, Chika Anastesia Anisiuba and Charity

Nkeiru Ezuwore-Obodoekwe 289-305.

doi:10.5937/ekonhor2103289O

PREDMETNI INDEKS

Nenad Stanišić i Veljko Marinković 307-308.

PREGLED AUTORA I NASLOVA 309-310.



UVODNIK

U Svesci 3 Volumen 23 Godište 2021 naučnog časopisa *Ekonomski horizonti* publikovana su četiri izvorna naučna i dva pregledna članka, Predmetni indeks članaka i Pregled autora i naslova svih priloga publikovanih u Časopisu, u 2021. Istovremeno, kao rezultat kontinuiranog nastojanja Uredništva Časopisa da se, uz unapređivanje kvaliteta publikovanih radova, poveća Indeks internacionalnosti autora, ukazujemo na to da je u Volumenu 23 Godište 2021 *Ekonomskih horizonata* publikovano dvanaest naučnih članaka autora iz inostranstva (Meksiko, Nigerija, Indija, Južna Koreja, Poljska, Sudan, Vijetnam i Indonezija), što je dve trećine, odnosno, 66,67% od ukupnog broja objavljenih naučnih članaka u Časopisu, u 2021.

Polazeći od stava da je teritorijalno i političko uređenje države određeno načinom raspodele funkcija i resursa po nivoima vlasti, koautori *Saša Randelović* i *Svetlana Vukanović* istražuju relevantne aspekte fiskalne decentralizacije i strukturne karakteristike lokalnih javnih finansija u Republici Srbiji, sa naglaskom na lokalnu politiku javnih investicija. Rezultati istraživanja pokazuju da je veći deo lokalnih javnih investicija usredsređen na održavanje putne i administrativne infrastrukture, uz niska ulaganja u životnu sredinu i obrazovanje. Autori ukazuju da je, za smanjenje lokalnih dispariteta u kvalitetu lokalne infrastrukture i podsticanje ekonomske konvergencija, neophodno unapređenje kapaciteta za planiranje i sprovođenje investicija i uvođenje sistemskih podsticaja za lokalne javne investicije. Ovo tim pre što je, smatraju koautori, nizak nivo kako javnih, tako i domaćih privatnih investicija jedan

od glavnih razloga sporog rasta privrede Republike Srbije u poslednje dve decenije.

Uticaj poreza na ekonomski rast, prezentiran uzajamnim odnosom BDP-a *per capita* i poreskih obaveza u posmatranim zemljama, predmet je istraživanja koje su sprovedli koautori *Lich Khac Hoang, Binh Tan Cao, Kim My Le* i *Dung Thi Thuy Nguyen*. Analizirani su relevantni podaci o poreskim obavezama i BDP-u *per capita* za 63 zemlje, u periodu 2003-2017. Utvrđeno je da različite vrste poreza ostvaruju različite efekte za ekonomski rast. Rezultati istraživanja pokazuju da većina poreza, izuzev poreza na dohodak građana, ostvaruje pozitivan uticaj na ekonomski rast u siromašnim zemljama, dok porezi na robu i usluge pozitivno deluju na ekonomski rast u bogatim zemljama. Takođe, pokazuje se da porez na imovinu negativno utiče na ekonomski rast u bogatim zemljama, dok je njegov uticaj značajno pozitivan u podsticanju ekonomskog rasta u siromašnim zemljama.

Shodno stavu da su, zbog dinamičnih promena pod uticajem digitalizacije, dovedeni u pitanje tradicionalni faktori uspešnosti preduzeća, autor *Aleksandra Bošković* u svom istraživanju ukazuje na potrebu ispitivanja novih načina za stvaranje održive vrednosti. Polazni je stav da je znanje bitan kvalitativni faktor generisanja i primene novih ideja, kao i razvoja i implementacije novih tehnologija, a da su ljudi nosioci znanja, zbog čega autor ukazuje na potrebu istraživanja načina unapređivanja njihovog potencijala. Na osnovu sprovedenog empirijskog istraživanja, na primeru informaciono-komunikacionih tehnologija, autor dokazuje da autonomija zaposlenih pozitivno utiče na nivo njihove angažovanosti u digitalnom okruženju, a posebno u uslovima rada na daljinu. Pri tome, autor

* Korespondencija: V. Leković, Ekonomski fakultet Univerziteta u Kragujevcu, Liceja Kneževine Srbije 3, 34000 Kragujevac, Republika Srbija; e-mail: lekovic@kg.ac.rs

naglašava da autonomija treba biti zasnovana na znanju i ekspertizi, jer se jedino pod tim uslovom mogu ostvariti pozitivni efekti.

Razmatrajući implikacije kreditiranja, finansiranja iz sopstvenih sredstava i podrške države za performanse mikro-, malih i srednjih preduzeća, koautori *Maria Rio Rita*, *Yeterina Widi Nugrahanti* i *Ari Budi Kristanto* posebno ukazuju na posredničku ulogu inovacija. Primenom modeliranja strukturnih jednačina metodom delimičnih najmanjih kvadrata, na uzorku mikro-, malih i srednjih preduzeća, čije je sedište u gradu Salatiga u Centralnoj Javi, u Indoneziji, koautori ukazuju na to da kreditiranje i finansiranje iz sopstvenih sredstava pozitivno utiču na poslovne performanse i inovacije, dok podrška države pozitivno utiče na inovacije, ali ne utiče na poslovne performanse. Pri tome, koautori ukazuju da inovacije pozitivno utiču na poslovne performanse preduzeća, pri čemu, istovremeno, posreduju u pogledu uticaja kreditiranja, pojačavaju učinak finansiranja iz sopstvenih izvora i usklađuju učinak podrške države.

Shodno značaju Asocijacije nacija Jugoistočne Azije (ASEAN) i njenoj ulozi u podsticanju trgovinskih tokova zemalja članica, koautori *Anh Thu Nguyen* i *Thi Mai Thanh Tran* istražuju efekat trgovinskih olakšica, smatrajući ih snagom koja vodi ka formiranju jednog tržišta i jedne proizvodne baze. *Očekuje se da će zemlje članice ASEAN-a, uz striktno pridržavanje akcionog plana Asocijacije, ostvariti povećanje trovinskih tokova, uz minimiziranje trgovinskih troškova, promovisanje učešća u globalnim lancima vrednosti i povećanje učešća privatnog sektora.* Koautori konstatuju da su pokazatelji ublažavanja netarifnih prepreka

i institucionalne koordinacije, s jedne strane, i pokazatelji uključenosti država članica Asocijacije, s druge strane, najuspešnije ostvareni u periodu 2017-2019. Efekti trgovinskih tokova u Asocijaciji, pozitivno su se odrazili i na vanregionalnu trgovinu država članica.

Vežu između korporativne društvene odgovornosti i cene kapitala, koautori *Nyore Sandra Ofogbe*, *Chidiebere Nnamani*, *Chika Anastesia Anisiuba* i *Charity Nkeiru Ezuwore-Obodoekw* istražuju na uzorku 32 privredna društva, koja se kotiraju na Nigerijskoj berzi. Kao mera korporativne društvene odgovornosti korišćen je Tomson Rojters Indeks, dok su cena sopstvenog, akcijskog kapitala i cena duga korišćeni kao mera cene kapitala. Na osnovu rezultata istraživanja, koautori zaključuju da privredna društva koja investiraju u korporativnu društvenu odgovornost imaju bolju šansu da po povoljnijoj ceni dođu do kapitala. Zbog navedenog efekta, koji se ogleda u lakšem pristupu novčanim sredstvima po povoljnijoj ceni, koautori preporučuju kompanijama da kontinuirano ulažu u korporativnu društvenu odgovornost.

U ime Uredništva Časopisa i u svoje ime zahvaljujem se, pre svega, autorima priloga koji su objavljeni u ovoj Svesci Časopisa. Istovremeno, posebnu zahvalnost dugujemo recenzentima koji su, svojim konstruktivnim i kritičkim komentarima i sugestijama autorima podnetih priloga, doprineli podizanju nivoa kvaliteta publikovanih članaka.

Sveska 3 Godište 2021 sadrži sveobuhvatan Predmetni indeks naučnih članaka publikovanih u Časopisu, u 2021, kao i Pregled autora i naslova svih priloga objavljenih u *Ekonomskim horizontima*, u 2021.

Glavni i odgovorni urednik
Vlastimir Leković

Vlastimir Leković je redovni profesor Ekonomskog fakulteta Univerziteta u Kragujevcu, u penziji. Doktorirao je na Ekonomskom fakultetu Univerziteta u Kragujevcu, iz naučne oblasti opšta ekonomija i privredni razvoj. Izvodi nastavu iz nastavnih disciplina Institucionalna ekonomija, na master, i Metodologije naučnog istraživanja i Politike tržišne regulative, na doktorskim studijama. Ključne oblasti njegovog naučnoistraživačkog interesovanja su ekonomski sistem, ekonomska politika i institucionalna ekonomija.

Izvorni naučni članak

UDK: 336.1/5:330.322(497.11)
doi:10.5937/ekonhor2103207R

FISKALNA DECENTRALIZACIJA I LOKALNA POLITIKA JAVNIH INVESTICIJA U REPUBLICI SRBIJI

Saša Randelović^{1*} i Svetlana Vukanović²

¹Ekonomski fakultet Univerziteta u Beogradu

²Svetska banka, Beograd, Republika Srbija

U ovom radu se analizira nivo fiskalne decentralizacije i strukturne karakteristike lokalnih javnih finansija u Republici Srbiji, sa fokusom na lokalnu politiku javnih investicija. Udeo rashoda centralnog nivoa vlasti u konsolidovanim javnim rashodima u Republici Srbiji iznosi 83%, što ukazuje na relativno visok stepen fiskalne centralizacije. I pored rasta javnih prihoda u poslednjoj deceniji, lokalne javne investicije su i dalje niske - u Republici Srbiji iznose 1% BDP-a, što je znatno ispod proseka EU (1,4%) i Centralne i Istočne Evrope (1,5% BDP-a). Rezultati ukazuju na velike razlike u relativnoj visini javnih investicija po lokalnim samoupravama. Veći deo lokalnih javnih investicija usredsređen je na održavanje putne i administrativne infrastrukture, dok su ulaganja u životnu sredinu i obrazovanje niska. Da bi se smanjili lokalni dispariteti u kvalitetu lokalne infrastrukture i podstakla ekonomska konvergencija, neophodno je unapređenje kapaciteta za planiranje i sprovođenje investicija i uvođenje sistemskih podsticaja za lokalne javne investicije.

Ključne reči: fiskalna decentralizacija, lokalna samouprava, javne finansije, javne investicije na lokalnom nivou

JEL Classification: H70, H71, H72, H74

UVOD

Teritorijalno i političko uređenje države određeno je, u velikoj meri, načinom na koji je formirana, njenim kulturnim nasleđem, kao i društveno-političkim i ekonomskim karakteristikama društva. S tim u vezi, jedno od relevantnih pitanja u domenu fiskalnog federalizma odnosi se na optimalan

nivo raspodele funkcija i resursa po nivoima vlasti i uticaj intenziteta fiskalne decentralizacije na ukupne ekonomske performanse države, pre svega, na dugoročni ekonomski rast. Osim u evropskim tranzicionim ekonomijama, nivoi decentralizacije su tokom vremena bili relativno stabilni, pri čemu je prikupljanje prihoda relativno više centralizovano od politike javnih rashoda (Dziobek, Mangas & Kufa, 2011). Teorijski argumenti u prilog fiskalnoj decentralizaciji zasnivaju se na, takozvanom, Tibuovom modelu, koji sugeriše da postojanje više

* Korespondencija: S. Randelović, Ekonomski fakultet Univerziteta u Beogradu, Kamenička 6, 11000 Beograd, Republika Srbija; e-mail: sasa.randjelovic@ekof.bg.ac.rs

političkih jedinica (lokalnih samouprava) omogućava ljudima da se presele kako bi izabrali onu koja najbolje odražava njihove preferencije, u smislu kvaliteta lokalnih javnih dobara i usluga i visine i strukture poreza (Tiebaut, 1956). Stoga se smatra da postojanje većeg broja lokalnih samouprava omogućava prilagođavanje njihovih politika preferencijama njihovih stanovnika, što pozitivno utiče na ukupno društveno blagostanje (Stigler, 1957). To bi ukazalo da fiskalna konkurencija između lokalnih samouprava dovodi do efikasne alokacije resursa, što pozitivno utiče na ukupnu ekonomsku efikasnost (Oates, 1972). Ovi teorijski stavovi potkrepljeni su i empirijskim istraživanjima koja pokazuju da postojanje većeg broja lokalnih samouprava na 100.000 stanovnika pozitivno utiče na lokalni ekonomski razvoj (Akai & Sakata, 2002; Stansel, 2005). S druge strane, postoji i relativno veliki broj empirijskih istraživanja koja sugeriraju postojanje negativne veze između fiskalne decentralizacije i ekonomskog rasta (Martinez-Vazques & McNab, 2003; Bodman, 2011; Baskaran & Feld, 2013).

Rezultati teorijskih i empirijskih analiza, takođe, ukazuju da veza između fiskalne decentralizacije i ekonomskog rasta nije linearna, već da zavisi od stepena decentralizacije, transparentnosti javnih finansija, dizajna podsticaja kreiranih sistemom finansiranja i efikasnosti korišćenja javnih resursa na sub-centralnim nivoima vlasti (Bird, 2000). Novija empirijska istraživanja ukazuju da je jedan od glavnih razloga relativno sporog rasta privrede Republike Srbije (RS) u poslednje dve decenije (u poređenju sa rastom koji su, na primer, ostvarile azijske zemlje kada su bile na istom nivou razvoja), nizak nivo investicija, pre svega, javnih investicija, kao i domaćih privatnih investicija (Arsić, Randelović & Nojković, 2019). Nedovoljan nivo konsolidovanih državnih javnih investicija posledica je niskih ulaganja kako centralnog, tako i lokalnog nivoa države. Ipak, u poslednjih nekoliko godina, javne investicije na centralnom nivou države znatno su porasle, dok su lokalne javne investicije ostale relativno niske, uprkos dodatnoj decentralizaciji javnih prihoda (Randelović, 2020). Uzimajući u obzir da empirijska istraživanja pokazuju da su fiskalni multiplikatori povezani sa javnim ulaganjima u evropskim ekonomijama u

razvoju relativno visoki (Petrović, Arsić & Nojković, 2021), niska javna ulaganja izazivaju značajne gubitke u smislu propuštenog budućeg ekonomskog rasta. Zbog toga je, u cilju podsticanja dugoročnog ekonomskog rasta, pored brojnih drugih preduslova, potrebno poboljšati institucionalne mehanizme koji bi obezbedili relativno visok nivo javnih investicija na svim nivoima države, čija bi primena bila transparentna i efikasan.

Predmet istraživanja u ovom radu je stanje fiskalne decentralizacije u Republici Srbiji, kao i analiza performansi sistema finansiranja lokalnih samouprava i karakteristika lokalne politike javne potrošnje, sa fokusom na javne investicije.

Shodno tome, u radu se testiraju dve hipoteze:

- H1: Nivo lokalnih javnih investicija u Republici Srbiji je nizak.
- H2: Decentralizacija prihoda, bez uvođenja sistemskih podsticaja, ne dovodi do automatskog povećanja lokalnih javnih investicija.

Svrha ovih razmatranja je pružanje utemeljene ocene karakteristika institucionalnog uređenja vezanog za finansiranje lokalne samouprave (LSU) u RS i identifikacija područja za unapređenje mehanizama finansiranja LSU, usmerenih na promociju lokalne politike javnih investicija i podsticanje lokalnog ekonomskog razvoja. Analiza u ovom radu zasniva se na primeni metoda deskriptivne statističke analize agregatnih (makroekonomskih) podataka, dostupnih u Biltenu javnih finansija za period 2010-2019⁹. Procena varijacija u strukturnim karakteristikama lokalne politike javnih finansija vrši se korišćenjem podataka na nivou LSU, za 27 gradova i opština u uzorku, za koje su autori prikupili podatke o realizaciji budžeta. Uzorci LSU čine 52% ukupnog stanovništva u RS, 59% ukupnih izdataka LSU i 62% ukupnih prihoda LSU.

Ostatak rada strukturiran je na sledeći način. Odeljak 2 pruža uvid u ključne činjenice o teritorijalnoj organizaciji i fiskalnoj decentralizaciji u RS. U odeljku 3 analiziraju se karakteristike i performanse instrumenata finansiranja LSU, dok se odeljak 4 bavi analizom stanja, strukture i dinamike politike

javnih rashoda LSU, sa posebnim fokusom na lokalnu politiku javnih investicija. U odeljku 5, ocenjuju se karakteristike i performanse institucionalnog okvira u domenu fiskalnog bilansa i duga LSU, dok su u odeljku 6 data zaključna razmatranja.

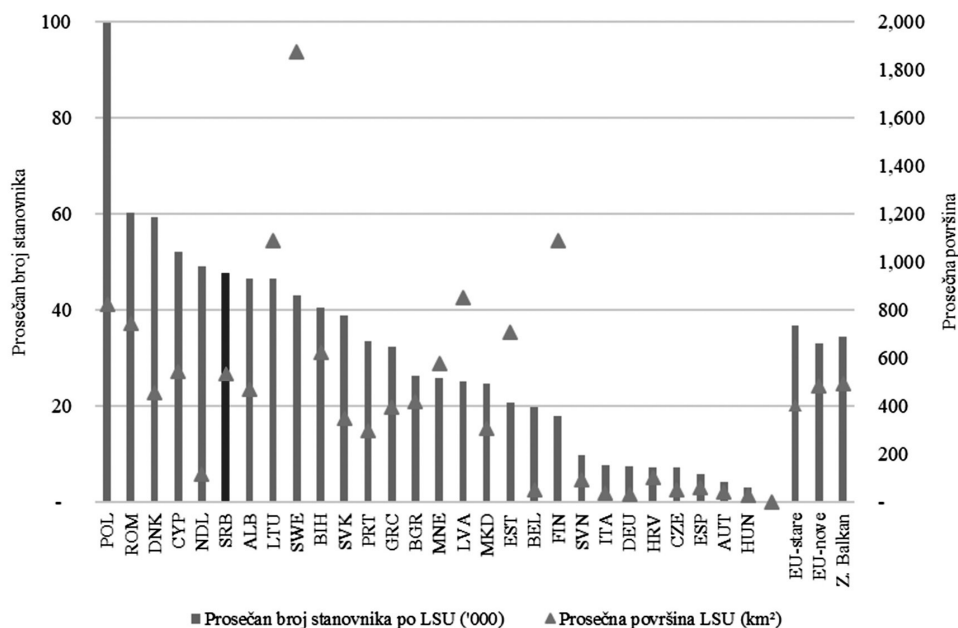
TERITORIJALNA ORGANIZACIJA I FISKALNA DECENTRALIZACIJA U REPUBLICI SRBIJI

Republika Srbija je organizovana kao unitarna država, sa dominantnim nivoom centralnog nivoa vlasti, te sub-centralnim nivoom vlasti koji se sastoji od lokalnih samouprava i autonomnih pokrajina. Lokalne samouprave mogu imati oblik opština (obično iznad 10.000 stanovnika) i gradova (sa više od 100.000 stanovnika). Ova ograničenja za formiranje opština i gradova mogu se ublažiti iz ekonomskih, geografskih i istorijskih razloga, što znači da se opštine i gradovi mogu formirati čak i ako je ukupan broj stanovnika manji od 10.000 odnosno, 100.000. Prema Zakonu

o teritorijalnoj organizaciji Republike Srbije (2007), njena teritorija se sastoji od 145 lokalnih samouprava: 117 opština, 27 gradova i glavni grad (Beograd). Pored toga, u RS postoje 24 okruga, koji su definisani kao administrativne jedinice, bez efektivnih funkcija i budžeta.

Prosečan broj stanovnika po LSU u RS iznosi blizu 48 hiljada, što je za 37% više od proseka Evropske unije (EU) ili Zapadnog Balkana (ZB). S druge strane, prosečna površina LSU u Republici Srbiji iznosi 534 km², što je blizu proseka EU i nešto više od proseka ZB (Slika 1). Ovi podaci ukazuju na to da su lokalne samouprave u RS prilično velike, posebno u pogledu broja stanovnika, u poređenju sa evropskom praksom.

Teritorijalna organizacija može, donekle, oblikovati fiskalnu decentralizaciju zemlje. Fiskalna decentralizacija se može meriti na različite načine, pri čemu je jedan od često korišćenih pokazatelja koeficijent centralizacije, koji meri udeo rashoda centralnog nivoa države u konsolidovanim rashodima države (Rosen & Gayer, 2014). Zbog



Slika 1 Prosečan broj stanovnika po LSU ('000) i prosečna površina LSU (km²) u Evropi

unitarnog karaktera države, 83% konsolidovanih državnih rashoda u RS realizuje se na nivou centralne države (budžet Republike Srbije, fondovi socijalnog osiguranja i slično), što je iznad proseka EU-27 i Zapadnog Balkana (Slika 2). Podaci, predstavljeni na Slici 2, sugerišu postojanje većeg nivoa fiskalne decentralizacije u razvijenim evropskim zemljama nego u evropskim zemljama u razvoju. To je u skladu sa nalazima drugih empirijskih studija, zasnovanih na sofisticiranijoj metodologiji, koja uzima u obzir ne samo raspodelu budžeta po nivoima vlasti, već i efektivnu fiskalnu autonomiju, u pogledu funkcija i ovlašćenja (Aristovnik, 2012; Molnar, 2014).

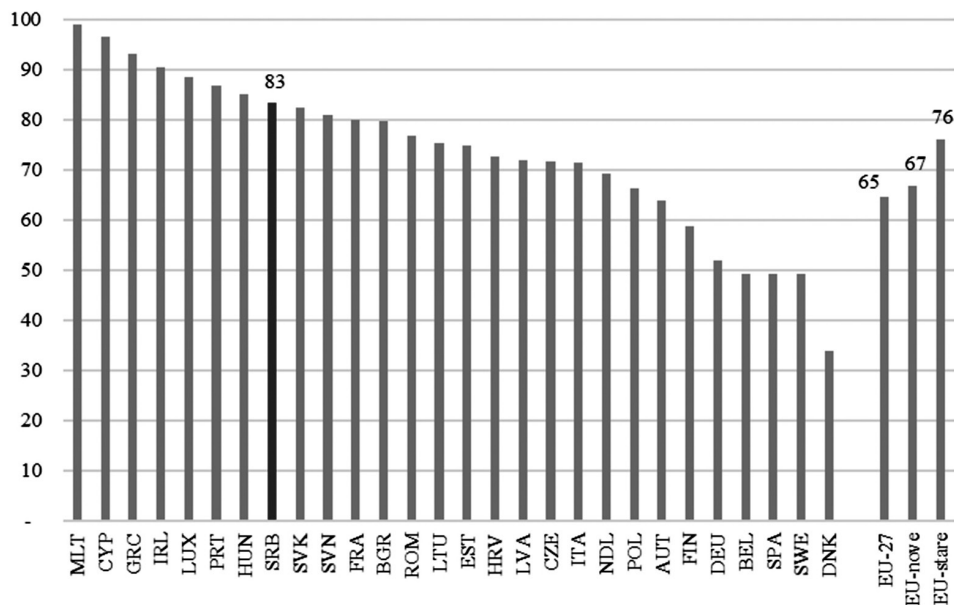
FINANSIRANJE LOKALNIH SAMOUPRAVA

Institucionalni okvir

Finansiranje LSU u RS regulisano je Zakonom o finansiranju lokalne samouprave (2006). U skladu sa Članom 2 tog zakona, postoje tri grupe instrumenata

finansiranja LSU: izvorni prihodi, ustupljeni prihodi, i transferi centralnog nivoa države. Izvorni prihodi su instrumenti za prikupljanje prihoda koje definiše, uvodi i prikuplja lokalna samouprava, što znači da je lokalna samouprava relativno slobodna da odlučuje o njihovim karakteristikama, parametrima i iznosima. To su: periodični porez na imovinu, lokalni administrativni i komunalni porezi, boravišne takse, neke naknade za korišćenje javnih dobara, koncesione naknade, neke novčane kazne, prihodi od zakupa imovine u vlasništvu LSU, samodoprinosi, grantovi itd. Ustupljeni prihodi obuhvataju instrumente javnih prihoda koje je definisala, uvela i prikupila centralna država, a zatim ih dodelila LSU na osnovu zakonskih kriterijuma. Postoji nekoliko vrsta ustupljenih prihoda: 74% prihoda od poreza na zarade, pun iznos ostalih poreza na dohodak građana, porez na nasledstvo i poklone i porez na prenos apsolutnih prava.

Bespovratna sredstva centralnog nivoa vlasti su transferi obezbeđeni iz budžeta Republike u budžete lokalnih samouprava, u obliku nenamenskih i



Slika 2 Koeficijent centralizacije u Evropi (%)

namenskih transfera. Nenamenski transferi se dele na: transfer za ujednačavanje, opšti transfer, kompenzacioni transfer i transfer solidarnosti. Ukupan iznos nenamenskih transfera utvrđen je Zakonom o finansiranju lokalne samouprave (2006), na nivou 1,7% BDP-a. Ovaj iznos se koristi, prvenstveno, za finansiranje transfera za ujednačavanje, koji imaju za cilj da pomognu lokalnim samoupravama, koje imaju lošiji učinak u smislu naplate prihoda, zbog nerazvijenosti. Transferi za ujednačavanje se isplaćuju jedinicama lokalne samouprave koje imaju ustupljene prihode po glavi stanovnika ispod 90% proseka ustupljenih prihoda po stanovniku u svim LSU u RS. Kompenzacioni transfer ima za cilj da nadoknadi prihode koje su LSU izgubile usled promene poreskog zakonodavstva od strane centralnog nivoa vlasti. Ovaj transfer bi trebalo da nadoknadi lokalnim samoupravama deo propuštenih (dodeljenih) poreskih prihoda, tako da relativni pad poreskih prihoda centralnog nivoa vlasti i lokalnih samouprava bude jednak. Opšti transfer se dodeljuje svim LSU. Maksimalni iznos opšteg transfera dobija se oduzimanjem transfera za ujednačavanje i kompenzacionih transfera od ukupnog iznosa nenamenskih transfera. Prema Članu 42 Zakona o finansiranju lokalne samouprave (2006), postoji nekoliko kriterijuma na osnovu kojih se izračunava iznos opšteg transfera LSU: broj stanovnika (65% opšteg transfera), ukupna površina LSU (19,3%), broj odeljenja u osnovnim školama (4,56%), broj osnovnih škola (1,14%), broj odeljenja u srednjim školama (2%), broj srednjih škola (0,5%), broj dece u obdaništima (6%), broj ustanova za brigu o deci (1,5%). Iznos transfera za ujednačavanje, kompenzacionih i opštih transfera za svaku LSU koriguje se koeficijentom razvijenosti, koji se kreće od 0,5 do 1, kako bi se zaštitile nerazvijene LSU i podstakao njihov ekonomski rast. Iznos transfera za ujednačavanje, opštih i kompenzacionih transfera, namenjen Gradu Beogradu, koristi se za finansiranje fonda za transfer solidarnosti, koji se isplaćuje ostalim LSU na osnovu njihovog nivoa razvijenosti.

Namenski transferi se dele na funkcionalne transfere i namenske transfere u užem smislu. Funkcionalni transfer ima za cilj da obezbedi sredstva LSU potrebna za finansiranje dodatnih troškova LSU, nastalih zbog

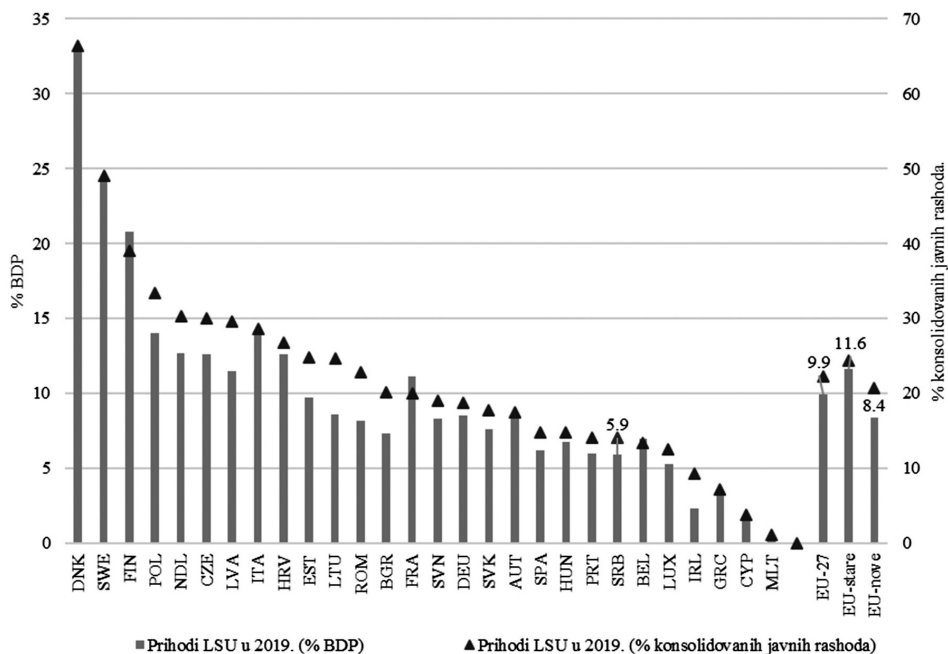
prebacivanja funkcija i ovlašćenja sa centralnog nivoa države na LSU. Na sličan način, centralni nivo države može da pruži lokalnim samoupravama namenski transfer u užem smislu, zahtevajući od njih da koriste taj transfer samo za obavljanje određene funkcije, kako je utvrđeno zakonom. Da bi se osigurala transparentnost isplate, podaci o nenamenskim transferima koji se daju svakoj LSU moraju biti objavljeni u Fiskalnoj strategiji. Međutim, u praksi se ovi podaci ne objavljuju redovno.

Opis šeme finansiranja LSU sugeriše da veličina budžeta LSU zavisi od njihove veličine, nivoa razvijenosti, funkcija, karakteristika javnih usluga, itd, dok efikasnost upotrebe sredstava (struktura rashoda) i naponi na prikupljanju izvornih prihoda nemaju direktan uticaj na sistem finansiranja LSU. To znači da šema finansiranja LSU ne stvara systemske (pozitivne) podsticaje u smislu prikupljanja prihoda (iz sopstvenih izvora), kao ni u pogledu produktivne alokacije resursa (Arsić, Randelović, Bučić i Vasiljević, 2012).

Fiskalna izdašnost

Ukupni prihodi LSU u RS (uključujući transfere centralnog nivoa države) u 2019, iznosili su 2,7 milijardi evra, što je ekvivalentno 5,9% BDP-a. Relativno, prihodi od lokalne samouprave u RS su znatno ispod proseka EU (9,9% BDP-a). Međutim, kada se upoređi sa novim državama članicama EU iz Centralne i Istočne Evrope (CIE), koje su uporedivije sa RS, razlika je znatno manja (Slika 3). Prihodi LSU u RS čine 14% konsolidovanih državnih prihoda, što je znatno ispod proseka EU-27 (22%) i proseka novih zemalja članica EU (20,7%). Ovo je posledica promena u teritorijalnoj organizaciji kao i vertikalne raspodele funkcija države. Kao rezultat promena u propisima o finansiranju LSU i napora u pogledu prikupljanja prihoda, ukupni prihodi LSU u RS, u 2019, realno su porasli za 15% u poređenju sa 2010, uglavnom, zbog povećanja poreza na zarade i poreza na imovinu, dok su transferi centralnog nivoa države ostali gotovo nepromenjeni.

Kriza javnog zdravlja, izazvana pandemijom COVID-19, imala je značajan negativan uticaj na



Slika 3 Javni prihodi lokalnih samouprava u Republici Srbiji i Evropi

Izvor: Autori

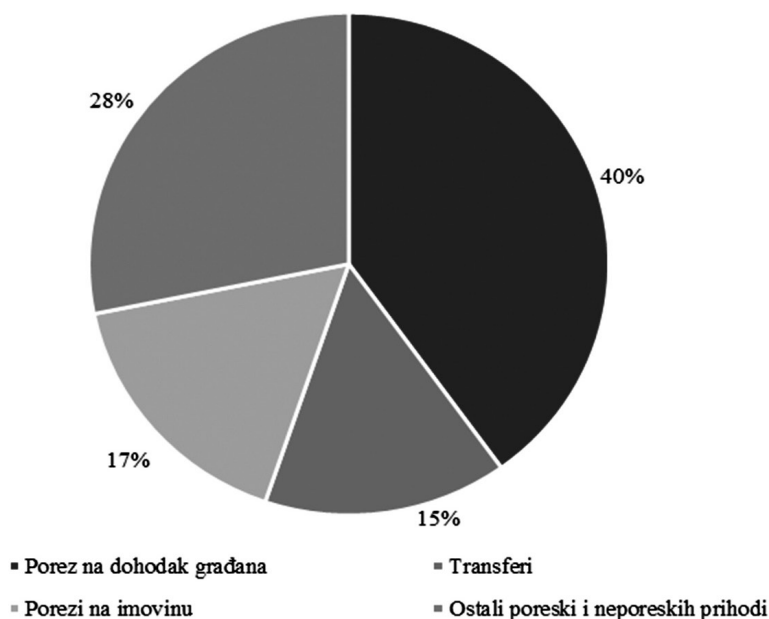
ekonomske trendove u većem delu sveta. Mnoge zemlje, uključujući i RS, reagovala su putem masovnih fiskalnih podsticaja, koji su uključivali opciju datu privatnom sektoru da odloži plaćanje poreza, što je znatno ublažilo recesiju (Randelović, 2021). Međutim, podaci Ministarstva finansija pokazuju da su, u 2020, poreski prihodi LSU u RS beležili blagi nominalni rast (a realno su stagnirali), dok su ukupni prihodi lokalne samouprave zabeležili blagi nominalni pad od 2,8% (Ministarstvo finansija, 2020). Relativno blagi pad se može pripisati činjenici da veliki deo prihoda LSU dolazi od poreza sa stabilnom poreskom osnovicom (porezi na imovinu). Kako su državne subvencije sprečile masovni rast nezaposlenosti, tako su i prihodi od poreza na zarade bili stabilni. U isto vreme LSU su prilagodile svoje javne rashode, koji su ukupno opali za 3,4% u poređenju sa 2019.

Prihodi od poreza na dohodak čine 40% ukupnih prihoda LSU, a više od 4/5 ovih prihoda odnosi se na porez na zarade. Drugi po veličini instrumenti finansiranja LSU su periodični porezi na imovinu,

a zatim transferi centralnog nivoa vlasti. Ova tri instrumenta finansiranja čine više od 70% prihoda LSU, dok preostali deo prihoda potiče od poreza na nasledstvo i poklone, poreza na promet imovine, takse za isticanje firme, ostalih lokalnih komunalnih i administrativnih taksi i naknada, kao i drugih neporeskih i poreskih prihoda.

Struktura prihoda LSU (Slika 4), takođe, ukazuje na dominaciju namenskih prihoda i transfera, dok je udeo izvornih prihoda, koji se definišu i naplaćuju od strane LSU, relativno nizak, što u određenoj meri ograničava njihovu autonomiju. Ovo je posledica dizajna sistema javnih finansija, nedostatka podsticaja i relativno niskih napora lokalnih samouprava na prikupljanju prihoda.

Prema podacima na opštinskom nivou, prosečni godišnji prihodi po stanovniku, na uzorku od 27 LSU, iznose 50.600 RSD. Raspodela po lokalnim samoupravama ukazuje na relativno visoku nejednakost u pogledu raspodele prihoda po LSU. Prosečni koeficijent varijacije u uzorku od 27 lokalnih



Slika 4 Struktura prihoda LSU u Republici Srbiji u 2019. (%)

Izvor: Autori

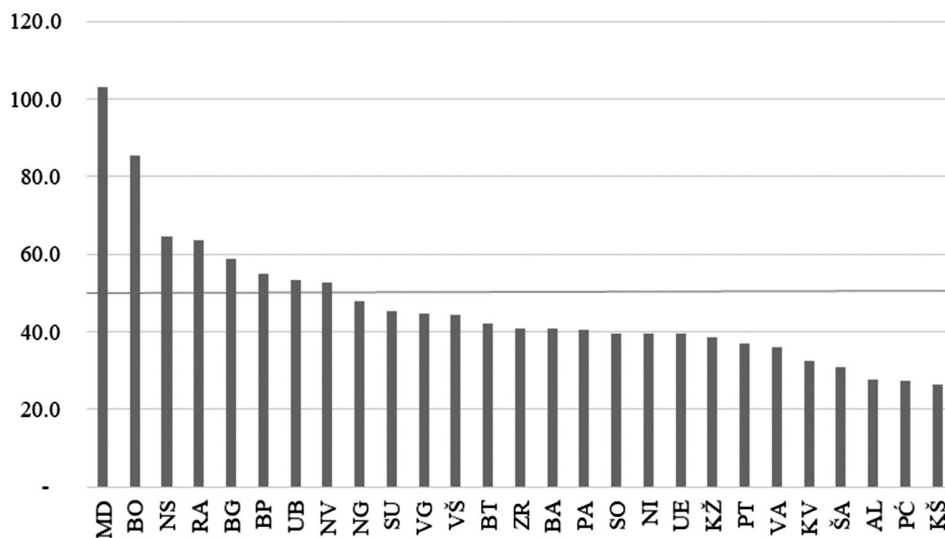
samouprava iznosi 37 (Slika 5), što je posledica dizajna sistema finansiranja lokalnih samouprava i regionalnih nejednakosti u pogledu ekonomskog razvoja. Nejednakost u raspodeli prihoda se, zatim, preslikava u nejednakost u raspodeli rashoda, uključujući nejednakost u lokalnim javnim investicijama (Slika 10), sa nepovoljnim uticajem na lokalne i regionalne razlike u pogledu ekonomskog razvoja.

LOKALNA POLITIKA JAVNIH RASHODA

Institucionalni okvir

Funkcije i nadležnosti LSU u RS regulisani su Zakonom o lokalnoj samoupravi (2007). Uopšteno govoreći, funkcije lokalnih samouprava u RS slične su ulogama dodeljenim lokalnim samoupravama u mnogim drugim evropskim zemljama i uključuju sledeće:

- izrada planova lokalnog ekonomskog razvoja i olakšavanje poslovanja i uslova za priliv investicija;
- pružanje lokalnih/komunalnih usluga (upravljanje otpadom i vodnosnabedvanjem, grejanje, itd.), javni prevoz i korišćenje građevinskog zemljišta i poslovnih prostora;
- razvoj, održavanje i upravljanje lokalnim putevima i drugom javnom infrastrukturom;
- pružanje pomoći u obezbeđenju usluga u obrazovanju (predškolsko, osnovno i srednje), pre svega, u pogledu razvoja i održavanja obrazovne infrastrukture (školske zgrade i oprema);
- olakšavanje pružanja usluga u istraživanju i inovacijama, kulturi, zdravstvu (održavanje i razvoj infrastrukture primarne zdravstvene zaštite), socijalnoj zaštiti i sportu;
- podsticanje razvoja turizma, zanatstva, trgovine i ugostiteljstva;



Slika 5 Prihodi LSU po glavi stanovnika u 2019. (hiljada RSD)ⁱⁱ

Izvor: Autori

- pružanje drugih usluga, važnih za lokalni razvoj (građevinska dozvola, zaštita od požara, itd.).

Regulaciju i nadzor nad radom LSU vrši Vlada Republike Srbije - Ministarstvo za državnu upravu i lokalnu samoupravu.

Javni rashodi - struktura i trendovi

Ukupni rashodi lokalnih samouprava u RS, u 2019, iznosili su 6% BDP-a, odnosno 14,1% konsolidovanih rashoda sektora države. Rashodi za robu i usluge predstavljaju najveću pojedinačnu stavku rashoda, sa udelom od 36% u ukupnoj potrošnji, praćeni ostalim izdacima - uglavnom vezanim za socijalnu zaštitu (22% ukupne potrošnje) i zaradama (19% ukupne potrošnje), dok su kapitalni izdaci činili oko jedne šestine ukupne potrošnje LSU (Slika 6).

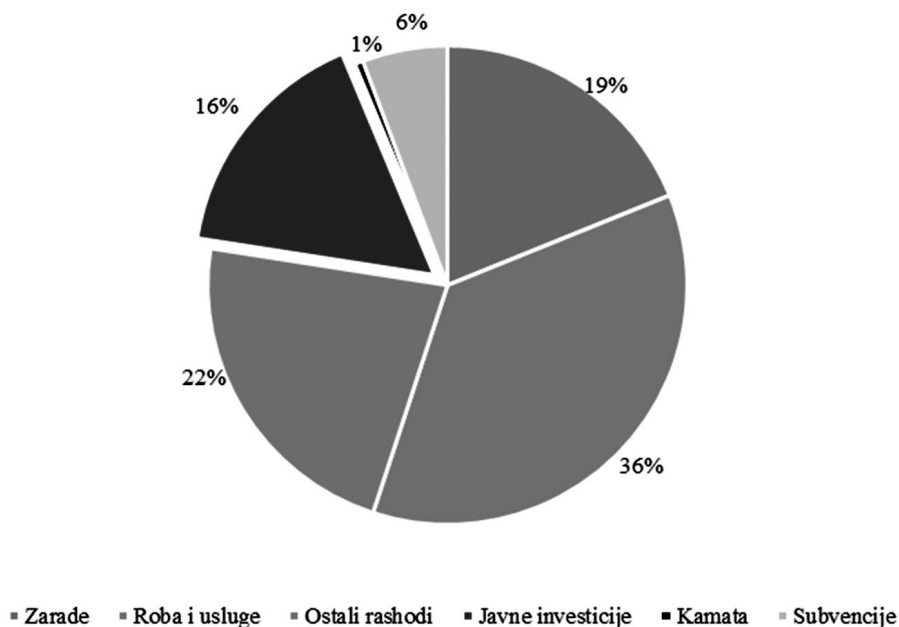
Zbog rasta prihoda i inflacije, izdaci za LSU u RS, u period 2010-2019), nominalno su porasli za 71,7%, dok je realni rast (usklađen za inflaciju) iznosio 19,2% (Slika 7). Ovaj rast je, u velikoj meri, posledica rasta potrošnje na robu i usluge (koje su u tom periodu realno porasle za 90%). Povećanje neproaktivnih rashoda podstaknuto je naglim prilivom prihoda

(zbog reforme raspodele poreza na zarade u 2011), kao i prilično niskim nivoom odgovornosti u pogledu lokalnog upravljanja javnim finansijama i činjenicom da je u tom periodu na snazi bilo zamrzavanje zapošljavanja u javnom sektoru, zbog čega su mnoge lokalne samouprave počele da eksterno ugovaraju usluge koje su ranije bile pružane interno.

Lokalna politika javnih investicija

U periodu 2011-2015, kapitalni izdaci (javne investicije u lokalnu infrastrukturu) bile su u padu, uprkos prilivu dodatnih poreskih prihoda usled reformi implementiranih 2011. i 2014. Lokalne javne investicije počele su da rastu tek 2015, od kada beleže blagi kontinuirani rast. Međutim, u 2019, lokalne javne investicije iznosile su približno 450 miliona evra, što je i dalje niže, za 13% realno, u odnosu na 2010. U relativnom iznosu, lokalne javne investicije u 2019, (Slika 8) iznosile su 1% BDP-a, čineći tako samo petinu konsolidovanih javnih investicija.

Iako su od 2015, lokalne javne investicije bile u porastu (kako nominalno, tako i realno), one su rasle sporije od investicija centralnog nivoa države, zbog čega je



Slika 6 Struktura javnih rashoda LSU u Republici Srbiji u 2019. (%)

Izvor: Autori

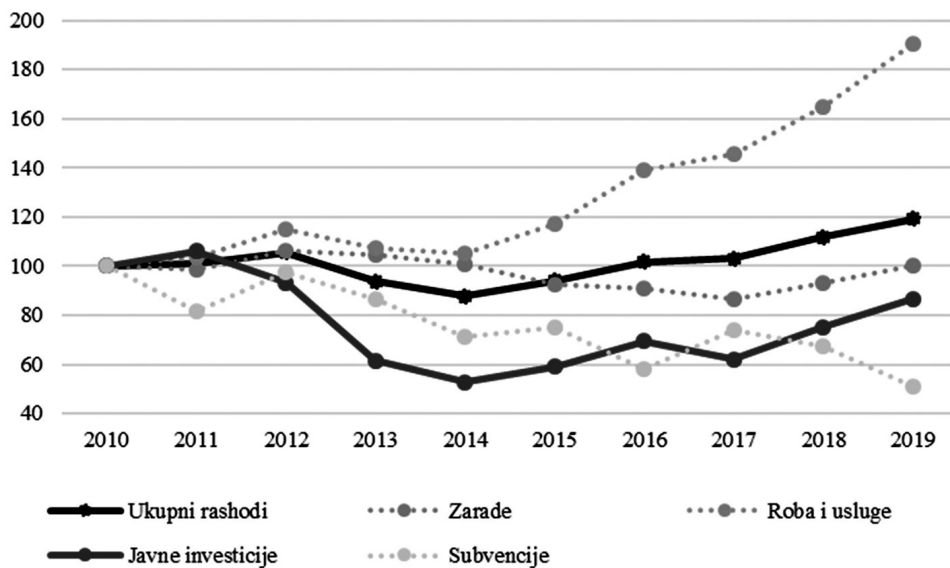
udeo lokalnih javnih investicija u konsolidovanim javnim investicijama kontinuirano opadao, počev od 2011. Tako su 2011, lokalne javne investicije činile 40% ukupnih konsolidovanih javnih investicija, dok je do 2019, taj udeo prepolovljen (Slika 9).

U poređenju sa ostalim zemljama, ukupne javne investicije lokalnih samouprava u RS su znatno ispod proseka EU-27 (1,4% BDP-a) i proseka CIE (1,5% BDP-a). Nove članice EU iz CIE, u proseku ulažu više iz budžeta lokalnih samouprava, nego razvijene evropske zemlje, kako bi im se približile u pogledu razvijenosti lokalne infrastrukture. Relativno niske lokalne javne investicije u Republici Srbiji u poređenju sa ostalim zemljama CIE mogu se donekle objasniti nižom javnom potrošnjom na lokalnom nivou. Podaci, međutim, pokazuju da Republika Srbija ima slabe rezultate i u pogledu udela javnih investicija u ukupnim lokalnim javnim rashodima. Stoga se niske javne investicije lokalnih samouprava u Republici Srbiji mogu objasniti ograničenom decentralizacijom prihoda, slabom politikom javnih

finansija na lokalnom nivou i nedostatkom kapaciteta za planiranje i realizaciju infrastrukturnih projekata.

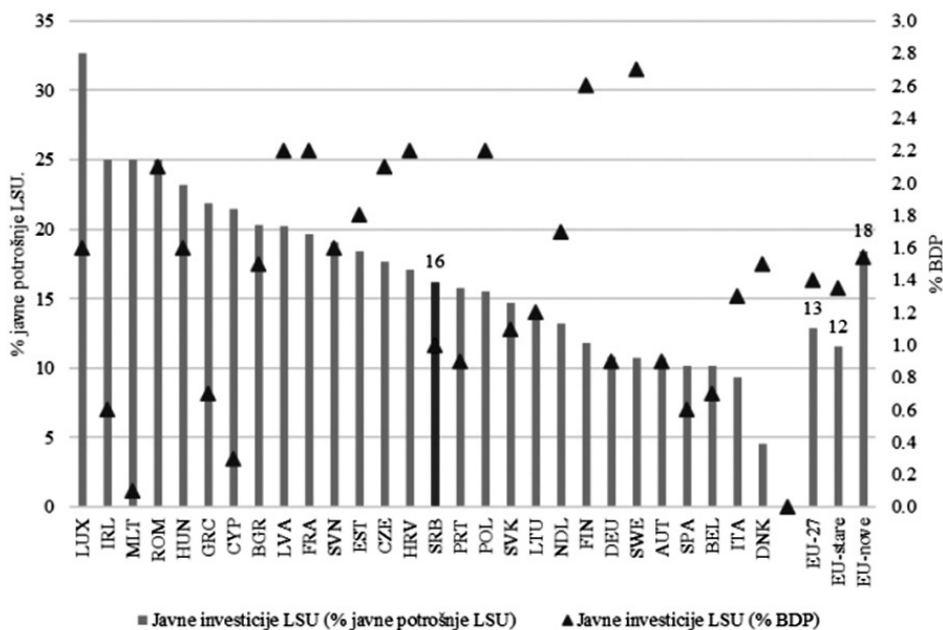
Iako se često tvrdi da je fiskalna decentralizacija na prihodnoj strani potrebna da bi se podstakle javne investicije na lokalnom nivou, podaci (slike 7 i 8) pokazuju da obezbeđenje dodatnih sredstava, verovatno, neće automatski rezultirati porastom javnih investicija, bez promene u institucionalnom uređenju i kapacitetima i uvođenja sistemskih podsticaja. Bez uvođenja veze između alokacije prihoda i strukture potrošnje LSU (na primer, putem podsticaja za rast i dobro definisanih pokazatelja učinka), postoji rizik da će se decentralizacija prihoda koristiti za finansiranje stavki rashoda koje daju kratkoročne političke koristi, umesto da se sredstva usmere na razvoj preduslova za dugoročni rast. To ilustruje opadajući udeo javnih investicija lokalnih samouprava u ukupnim rashodima lokalne samouprave - sa 22% u 2010, na 16% u 2019 (Slika 9).

Analiza zasnovana na mikro podacima za 2018, za 27 lokalnih samouprava uključenih u uzorak, takođe,



Slika 7 Indeks realne dinamike rashoda LSU (2010=100)

Izvor: Autori



Slika 8 Lokalne javne investicije u 2019: Republika Srbija versus Evropa

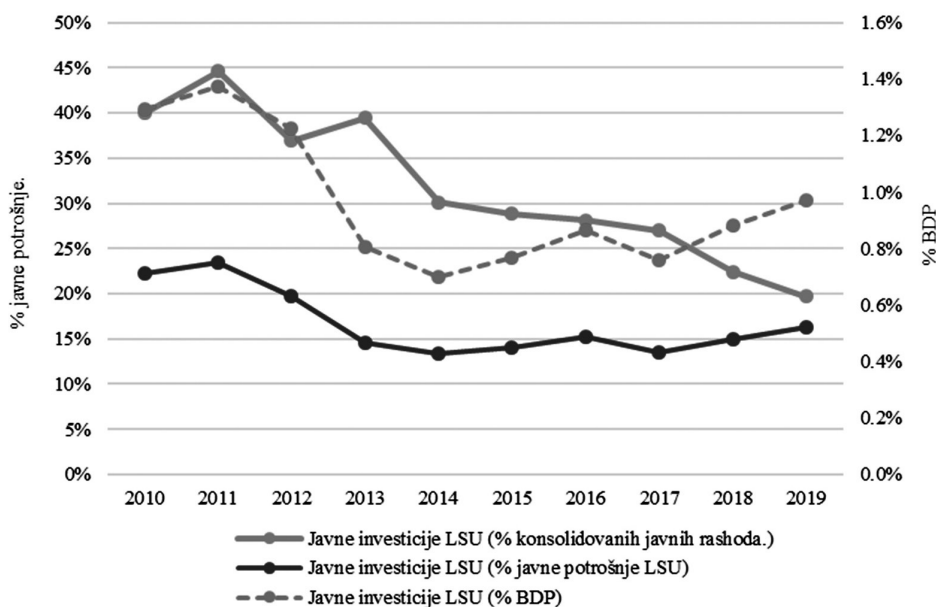
Izvor: Autori

ukazuje na velike razlike u relativnom iznosu javnih investicija među lokalnim samoupravama (Slika 10). Prosečno učešće javnih investicija u ukupnim rashodima iznosilo je 13,7%, sa koeficijentom varijacije 44,6%. Velike razlike u lokalnim javnim investicijama mogu biti uzrokovane nedostatkom sistemske veze između instrumenata finansiranja LSU i njihove politike rashoda. Međutim, podaci za lokalne samouprave uključene u uzorak pokazuju da je, u proseku, izvršenje javnih investicija niže za 20% od iznosa predviđenog godišnjim budžetom, te da je približno prikupljenim prihodima. Ovo ukazuje na to da lokalne samouprave, generalno, sistemski precenjuju budžete kako bi u obzir uzele neizvesnost u pogledu dinamike prihoda i efikasnost u pogledu upravljanja projektima.

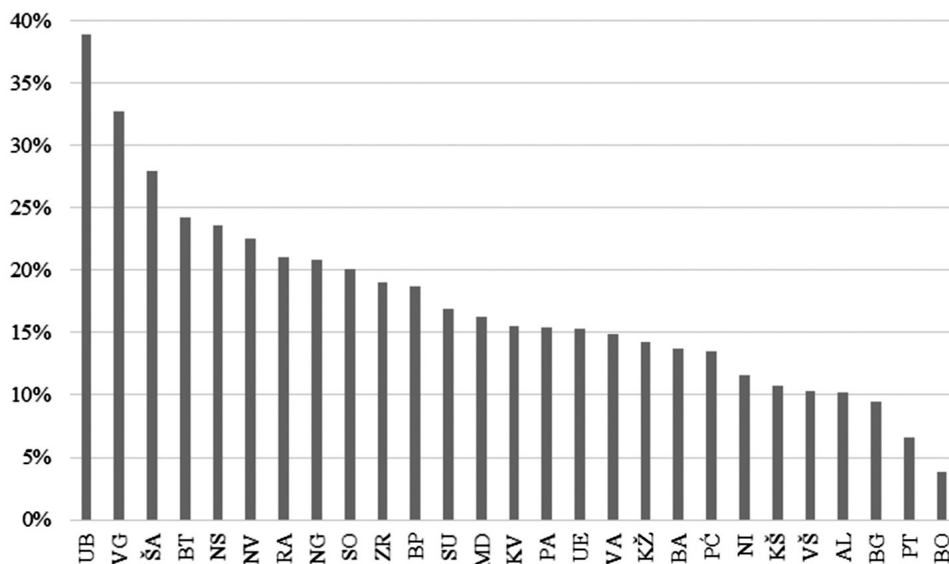
Podaci o 27 uzoračkih lokalnih samouprava, takođe, ukazuju na to da su lokalne javne investicije, uglavnom, usmerene na razvoj zajednice (29%)ⁱⁱⁱ i tradicionalnu rekonstrukciju i održavanje ulica (26,9%). Ulaganja u obrazovanje, kulturu i sportsku infrastrukturu čine blizu 13% investicija, dok ulaganja

u zelenu infrastrukturu (životna sredina, upravljanje otpadom, vodosnabdevanje i upravljanje otpadnim vodama) čine manje od 6% ukupnih javnih investicija lokalnih samouprava (Slika 11). S druge strane, veliki deo lokalnih javnih investicija (18,9%) odlazi na razvoj drugih vrsta infrastrukture, potrebne za pružanje administrativnih i opštih usluga.

Uzimajući u obzir relativno nizak kvalitet putne infrastrukture na lokalnom nivou, nedostatak odgovarajućeg sistema upravljanja otpadom, vodosnabdevanjem ili sistemom upravljanja otpadnim vodama, te nizak kvalitet vazduha, moglo bi se očekivati veće učešće investicija u ove vrste infrastrukture, u ukupnom iznosu kapitalnih izdataka. Prikazani podaci signaliziraju da to nije slučaj, između ostalog, zbog nedostatka sistemskog okvira koji bi podstakao produktivna ulaganja i potencijalno doprineo rekonstrukciji i održavanju kritične infrastrukture. Vlada RS je najavila dugoročni plan javnih investicija „Republika Srbija 2025“, u kojem se ulaganje u lokalnu infrastrukturu navodi kao jedan od prioriteta. S obzirom na to da



Slika 9 Dinamika lokalnih javnih investicija



Slika 10 Udeo lokalnih javnih investicija u ukupnim lokalnim javnim rashodima, po LSU (%)

Izvor: Autori

je uloga LSU da investira i održava komunalnu infrastrukturu, moglo bi se preporučiti da se pomoću investicionog plana uvedu sistemski podsticaji za LSU kako bi povećali napore u pogledu razvoja i rehabilitacije davno zapuštene lokalne infrastrukture, umesto da centralni nivo države bude direktno angažovan na razvoju komunalne infrastrukture. Kreiranje jasnog plana i ciljeva trebalo bi da utiče i na promenu načina razmišljanja, tako da fokus bude na tražnji umesto na ponudi lokalnih dobara, što bi lokalnim samoupravama olakšalo planiranje na srednji i dugi rok.

FISKALNI BILANS LOKALNIH SAMOUPRAVA

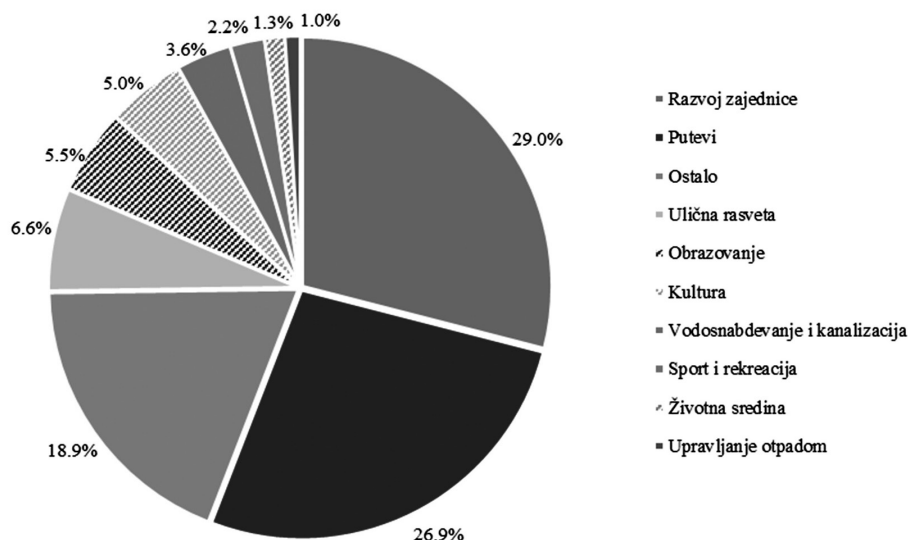
Prema Zakonu o budžetskom sistemu (2009), LSU može da ostvari fiskalni deficit samo u svrhu finansiranja lokalnih javnih investicija. Fiskalni deficit lokalne samouprave, međutim, ne može biti veći od 10% njenih javnih prihoda u odgovarajućoj godini. U slučaju sprovođenja velikog investicionog projekta, LSU može zatražiti od Ministarstva finansija

odobrenje za ostvarenje fiskalnog deficita većeg od ove granice, dok će odluka Ministarstva finansija zavisiti od opravdanosti zahteva i opšteg fiskalnog okvira.

Deficit lokalne samouprave može se finansirati zaduživanjem. Član 33 Zakona o javnom dugu (2005) dozvoljava lokalnim samoupravama da pozajmljuju novac na tržištu, uz pismenu saglasnost Ministarstva finansija. Ukupan dug, prikupljen za finansiranje tekuće likvidnosti, ne može preći 5% ukupnih prihoda u poslednjih godinu dana. S druge strane, dugoročno zaduživanje je dozvoljeno samo u svrhu finansiranja javnih investicija ili otplate dugova, uz sledeća ograničenja:

- dugoročni dug ne može biti veći od 50% budžeta LSU u prethodnoj godini;
- izdaci za plaćanje kamata i otplatu duga ne smeju preći 15% tekućih prihoda LSU u odgovarajućoj godini.

LSU ne smeju da izdaju garancije. Fiskalna pravila lokalne samouprave, utvrđena Zakonom o



Slika 11 Struktura lokalnih javnih investicija (%)

Izvor: Autori

budžetskom sistemu (2009), u skladu su sa pravilima o zaduživanju, predviđenim Zakonom o javnom dugu (2005).

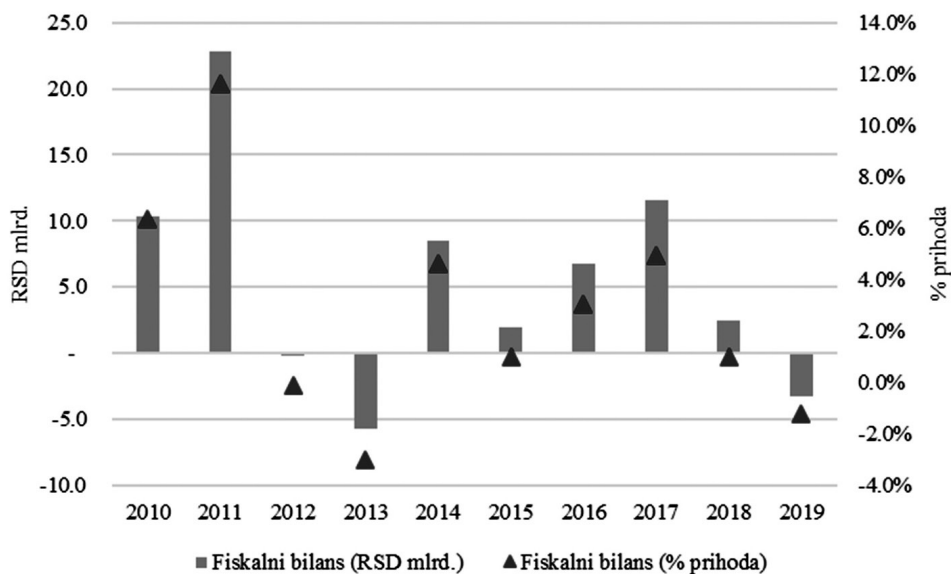
U poslednjoj deceniji (2020-2019), LSU u RS uglavnom su ostvarivale fiskalni suficit, dok je deficit na nivou svih LSU zabeležen samo u 2012, 2013 i 2019. Prosečni fiskalni bilans LSU u RS, u periodu 2010-2019, iznosio je blizu 5,5 milijardi dinara (suficit), što je ekvivalentno 2,8% njihovih ukupnih prihoda (Slika 12). Ovo je znatno ispod gornje granice deficita (10% javnih prihoda), kako je utvrđeno Zakonom o budžetskom sistemu (2009). U istom vremenskom periodu, ukupni rashodi na otplatu kamata i izdaci koji se odnose na otplatu duga u LSU u RS iznosili su 12 milijardi dinara (blizu 100 miliona evra) godišnje, odnosno, ekvivalentno 5,5-6% njihovih prihoda, što je, takođe, daleko ispod zakonske granice (15% prihoda).

ZAKLJUČAK

Empirijske studije pokazuju da su u poslednje dve decenije LSU u Republici Srbiji ostvarile

konvergenciju unutar dva klastera, dok beogradski okrug ne pokazuje znake konvergencije ni sa jednim ni sa drugim klasterom (Barrios *et al*, 2020). Uprkos konvergenciji klubova, i dalje postoje značajne lokalne i regionalne razlike, koje podstiču migracije produktivnog stanovništva ka razvijenijim regionima, podrivajući na taj način šanse za konvergenciju nerazvijenih područja. Rezultati empirijskih studija pokazuju da čak i relativno male promene u ekonomskim nejednakostima mogu imati velike efekte na obim migracija (Denett, 2014). U ovom radu analiziran je stepen fiskalne decentralizacije u RS i karakteristike lokalnih politika javnih finansija, sa fokusom na politiku javnih investicija na lokalnom nivou, jer je, strateški posmatrano, zeleni rast, kao i rast orijentisan ka razvoju lokalne infrastrukture jedan od ključnih preduslova za ekonomski razvoj.

Rezultati, prezentovani u ovom radu, dovode do nekoliko bitnih naučnih i praktičnih zaključaka. Utvrđeno je da su LSU u RS prilično velike, posebno u pogledu prosečnog broja stanovnika, u poređenju sa evropskom praksom. Istovremeno, stepen fiskalne decentralizacije u RS je ispod evropskog proseka. Javni prihodi i rashodi lokalne samouprave (u



Slika 12 Dinamika fiskalnog bilansa lokalnih samouprava, 2010-2019.

Izvor: Autori

odnosu na BDP) u RS su niži od proseka EU i CIE. Tri najveća instrumenta za prikupljanje prihoda LSU su porez na dohodak građana, porezi na imovinu i transferi centralnog nivoa države, koji čine gotovo $\frac{3}{4}$ ukupnih lokalnih javnih prihoda. Više od polovine prihoda LSU se dodeljuje, ili prenosi, od strane centralnog nivoa države, što ukazuje na nizak stepen fiskalne autonomije. Dobijeni pokazatelji sugerisu da su lokalne javne investicije u RS niske, dok je varijacija njihove relativne visine po LSU velika. Tako, na strani lokalnih javnih rashoda, glavne stavke predstavljaju nabavka dobara i usluga i zarade, koje čine 55% ukupnih rashoda, dok je udeo javnih investicija u ukupnim izdacima LSU tek 16% (što čini samo petinu konsolidovanih javnih investicija). Relativna veličina javnih investicija LSU u RS (1% BDP-a) je znatno ispod proseka CIE (1,4% BDP-a). Decentralizacija dodatnih javnih prihoda, sprovedena početkom prethodne decenije, nije dovela do rasta lokalnih javnih investicija, već su one u znatnom delu tog perioda čak i opadale. Javne investicije LSU u RS su, uglavnom, orijentisane na razvoj zajednice i tradicionalnu rekonstrukciju i održavanje ulica, dok su ulaganja u obrazovanje, kulturu i sportsku

infrastrukturu kao i u infrastrukturu životne sredine prilično niska. Uprkos porastu ukupnih prihoda (na primer, decentralizacija prihoda od poreza na zarade), tokom poslednje decenije, javne investicije LSU zabeležile su realan pad. Činjenica da je značajan broj LSU imao niska javna ulaganja, čak i u periodima kada su imale budžetski suficit, ukazuje da se, pored fiskalnih ograničenja, neke od njih suočavaju i sa ograničenjima u pogledu svojih kapaciteta za planiranje i sprovođenje investicionih projekata. Nizak nivo lokalnih javnih investicija i činjenica da se one nisu povećale ni kada su prihodi porasli, signaliziraju da lokalnim samoupravama nedostaju kapaciteti za srednjoročno i dugoročno planiranje i da institucionalnom dizajnu sistema finansiranja lokalnih samouprava nedostaju sistematski podsticaji za lokalne investicije usmerene na rast i razvoj. To je zbog toga što iznos prihoda koje lokalne samouprave ostvaruju, kao i transferi koje dobijaju od centralne države, ne zavise od kvaliteta i efikasnosti njihove fiskalne politike. Skorašnje promene planskih propisa u RS, koje zahtevaju pripremu razvojnih planova (za period od sedam godina) i srednjoročnih planova (za period od tri godine), mogle bi predstavljati

mehanizam za unapređenje planskih kapaciteta ukoliko se budu pravilno pripremili i kontrolisali. Pouke iz uporedne (međunarodne) prakse ukazuju da uvođenje sistemskih podsticaja može biti efikasno za trajnije i održivije povećanje (zelenih) javnih investicija. Reč je o podsticajima koji nagrađuju lokalne samouprave koje veći deo svoje javne potrošnje usmeravaju u produktivne svrhe. Uz to, sistemski pristup reformi javne uprave, koji bi rezultirao poboljšanjem administrativnih, tehničkih i planskih kapaciteta, takođe, može doprineti unapređenju ukupne efikasnosti lokalne politike javnih investicija.

Shodno prethodno navedenom, naučna relevantnost dobijenih rezultata odnosi se na razmatranje veze između fiskalne decentralizacije i javnih investicija, a posebno na povezanost dinamike javnih prihoda i visine lokalnih javnih investicija, u uslovima odsustva sistemskih podsticaja za investicije. Osim toga, dobijeni rezultati pružaju relevantne uvide za kreatora javnih politika, budući da se u radu, pored analize stanja, identifikuju i uzroci niskih lokalnih javnih investicija, kao i ključne institucionalne barijere za njihovo povećanje. Analiza u ovom radu zasnovana je na metodama deskriptivne statističke analize. Za pružanje dodatnih uvida u pogledu veze između nivoa fiskalne decentralizacije i visine lokalnih javnih investicija, bilo bi neophodno, primenom relevantnih metoda ekonometrijske analize, kontrolisati uticaj drugih faktora. Osim toga, pored odnosa fiskalne decentralizacije i lokalnih javnih investicija, relevantnim se smatra i pitanje uticaja visine i strukture lokalnih javnih investicija na lokalni ekonomski razvoj, što može predstavljati relevantno pitanje za buduća istraživanja.

ENDNOTE

ⁱ S obzirom na to da su ekonomska i fiskalna kretanja u 2020, bila pod uticajem vanrednih događaja uzrokovanih pandemijom COVID-19, razmatranje strukturnih karakteristika politike lokalnih javnih finansija za osnovu podataka za 2020, može dovesti do pogrešnih zaključaka, zbog čega je uzorak ograničen na period do 2019. Podaci za RS, uključeni u ovu analizu, odnose se na teritoriju Republike Srbije bez Kosova i Metohije*, koje je prema

rezoluciji 1244 Saveta bezbednosti Ujedinjenih nacija formalno pod upravom UN od 1999.

- ⁱⁱ Podaci se odnose na 2019. Podaci o rashodima po glavi stanovnika, po LSU, prikazani na Slici 10, odnose se na 2018, što je i poslednja godina za koju su podaci o rashodima po lokalnim samoupravama raspoloživi.
- ⁱⁱⁱ Prema zvaničnoj COFOG klasifikaciji, razvoj zajednice obuhvata: poslove i usluge administriranja razvoja zajednice - administriranje zoniranja, korišćenja zemljišta i izgradnje, regulisanje i planiranje novih zajednica ili rehabilitacije zajednice, planiranje unapređenja i razvoja objekata, kao što su objekti za stanovanje, industriju, javni komunalni objekti, zdravstvo, obrazovanje, kulturu, rekreaciju itd, pripremu shema finansiranja razvoja; pripremu i širenje opštih informacija, tehničke dokumentacije i statistika u vezi sa poslovima i uslugama povezanim sa razvojem zajednice.

REFERENCE

- Akai, N., & Sakata, M. (2002). Fiscal decentralization contributes to economic growth: Evidence from state-level cross-section data for the United States. *Journal of urban economics*, 52(1), 93-108. doi.org/10.1016/S0094-1190(02)00018-9
- Aristovnik, A. (2012). Fiscal Decentralization in Eastern Europe: Trends and selected issues. *Transylvanian Review of Administrative Sciences*, 8(37), 5-22. doi:10.2139/ssrn.2187475
- Arsić, M., Randelović, S., Bučić, A. i Vasiljević, D. (2012). *Reforme poreza na imovinu u Srbiji: Rezultati i perspektive*. Beograd, RS: Univerzitet u Beogradu - Ekonomski fakultet, Fondacija za razvoj ekonomske nauke.
- Arsić, M., Randelović, S. i Nojković, A. (2019). Uzroci i posledice niskih investicija u Srbiji. U M. Zec i O. Radonjić (Ur.). *Ekonomska politika Srbije u 2019. godini* (str. 63-84). Beograd, RS: Univerzitet u Beogradu - Ekonomski fakultet.
- Barrios, M. C., Jandrić, M., Molnar, D., & Tanasković, S. (2021). Convergence clubs in different regions of Serbia. *Applied Economics Letters*, 28(7), 594-598. doi.org/10.1080/13504851.2020.1765960
- Baskaran, T., & Feld, L. P. (2013). Fiscal decentralization and economic growth in OECD countries: Is there a relationship? *Public finance review*, 41(4), 421-445. doi.org/10.1177/1091142112463726

- Bird, R. M. (2000). Intergovernmental fiscal relations: Universal principals, local applications. *Working Paper 00-2*, Georgia State University, Andrew Young School of Policy Studies, Atlanta.
- Bodman, P. (2011). Fiscal decentralization and economic growth in the OECD. *Applied Economics*, 43(23), 3021-3035. doi.org/10.1080/00036840903427208
- Dennett, A. (2014). Quantifying the effects of economic and labour market inequalities on inter-regional migration in Europe-a policy perspective. *Applied Spatial Analysis and Policy*, 7(1), 97-117. doi:10.1007/s12061-013-9097-4
- Dziobek, C. H., Mangas, C. A. G., & Kufa, P. (2011). Measuring fiscal decentralization: Exploring the IMF's databases. *IMF Working Papers*, 11(126).
- Martinez-Vazquez, J., & McNab, R. M. (2003). Fiscal decentralization and economic growth. *World development*, 31(9), 1597-1616. doi.org/10.1016/S0305-750X(03)00109-8
- Molnar, D. (2014). Fiskalna decentralizacija i privredni rast: Evropska unija i Srbija. *Reforme i razvoj*, 73.
- Oates, W. E. (1972). *Fiscal Federalism*. New York, NY: Harcourt Brace Jovanovich
- Petrović, P., Arsić, M., & Nojković, A. (2021). Increasing public investment can be an effective policy in bad times: Evidence from emerging EU economies. *Economic Modelling*, 94, 580-597. doi:10.1016/j.econmod.2020.02.004
- Ministarstvo finansija. (2020). *Public Finance Bulletin No. 12/2020*. Ministry of Finance of the Republic of Serbia, Belgrade. Retrieved Marc 14. 2021. from: https://www.mfin.gov.rs/upload/media/K1WfqN_6042278628737.pdf
- Randelović, S. (2020). Pro-growth public investment policy in Serbia: Sufficiency and efficiency. *Ekonomika preduzeća*, 68(1-2), 137-146. doi:10.5937/EKOPRE2002137R
- Randelović, S. (2021). Determinants of volatility of economic activity in Europe during the Covid-19 pandemic: Stylized facts. *Ekonomika preduzeća*, 69(3-4), 231-242. doi:10.5937/EKOPRE2103231R
- Rosen, H. S., & Gayer, T. (2014). *Public Finance*, 10th edition. New York, NY: McGraw-Hill Irwin.
- Stansel, D. (2005). Local decentralization and local economic growth: A cross-sectional examination of US metropolitan areas. *Journal of Urban Economics*, 57(1), 55-72. doi:10.1016/j.jue.2004.08.002
- Stigler, G. (1957). The Tenable Range of Functions of Local Government. In *Federal Expenditure Policy for Economic Growth and Stability* (pp. 213-219). US Congress Joint Economic Committee, Government Printing Office, Washington, DC.
- Tiebout, C. M. (1956). A Pure Theory of Public Expenditures. *Journal of political economy*, 64(5), 416-424.
- Zakon o budžetskom sistemu. (2009). Sl. glasnik RS, br. 54/2009, 73/2010, 101/2010, 101/2011, 93/2012, 62/2013, 63/2013 - ispr., 108/2013, 142/2014, 68/2015 - dr. zakon, 103/2015, 99/2016, 113/2017, 95/2018, 31/2019, 72/2019 i 149/2020).
- Zakon o finansiranju lokalne samouprave. (2006). Sl. glasnik RS, br. 62/2006, 47/2011, 93/2012, 99/2013 - usklađeni din. izn., 125/2014 - usklađeni din. izn., 95/2015 - usklađeni din. izn., 83/2016, 91/2016 - usklađeni din. izn., 104/2016 - dr. zakon, 96/2017 - usklađeni din. izn., 89/2018 - usklađeni din. izn., 95/2018 - dr. zakon, 86/2019 - usklađeni din. izn. i 126/2020 - usklađeni din. izn.).
- Zakon o javnom dugu. (2005). Sl. glasnik RS, br. 61/2005, 107/2009, 78/2011, 68/2015, 95/2018, 91/2019 i 149/2020).
- Zakon o lokalnoj samoupravi. (2007). Sl. glasnik RS, br. 129/2007, 83/2014 - dr. zakon, 101/2016 - dr. zakon i 47/2018).
- Zakon o teritorijalnoj organizaciji Republike Srbije. (2007). Sl. glasnik RS, br. 129/2007, 18/2016, 47/2018 i 9/2020 - dr. Zakon).

Primljeno 9. juna 2021,
nakon revizije,
prihvaćeno za publikovanje 25. novembra 2021.
Elektronska verzija objavljena 6. decembra 2021.

Saša Randelović je vanredni profesor na Ekonomskom fakultetu Univerziteta u Beogradu. Doktorat iz ekonomije stekao je na Ekonomskom fakultetu Univerziteta u Beogradu. Njegovo polje istraživanja uključuje javne finansije i fiskalnu politiku.

Svetlana Vukanović je viši specijalista za saobraćaj u Svetskoj banci. Vodila je niz infrastrukturnih projekata širom Zapadnog Balkana. Doktorirala je na Minhenskom tehnološkom univerzitetu.

FISCAL DECENTRALIZATION AND LOCAL PUBLIC INVESTMENT POLICY IN THE REPUBLIC OF SERBIA

Sasa Randjelovic¹ and Svetlana Vukanovic²

¹*University of Belgrade, Faculty of Economics, Belgrade, The Republic of Serbia*

²*The World Bank, Belgrade, The Republic of Serbia*

This paper analyses the level of fiscal decentralization and structural characteristics of local public finances in Republic of Serbia with focus on local public investments. Share of central government expenditures in consolidated government spending of 83%, indicates relatively high degree of fiscal centralization. In spite of significant rise in local public revenues in the last decade public investments remained low - amounting to 1% of GDP, which is significantly below EU and Central and Eastern Europe average (1.4 and 1.5% GDP, respectively). Our results indicate large variation in relative size of public investments across LSGs. Most local public investments are focused on roads maintenance administrative infrastructure, while investments in environment and education are low. To tackle local disparities in terms of quality of local infrastructure and to foster economic convergence, development of planning and implementation capacities and introduction of systemic incentives for local public investments should be considered.

Keywords: fiscal decentralization, local self-government, public finance, local-level public investments

JEL Classification: H70, H71, H72, H74

Original scientific paper

UDC: 336.2:338.2

doi:10.5937/ekonhor2103225H

TAXATION AND ECONOMIC GROWTH: A REGRESSION ANALYSIS BASED ON A NEW CLASSIFICATION

Lich Khac Hoang^{1*}, Binh Tan Cao², Kim My Le² and Dung Thi Thuy Nguyen²

¹Vietnam National University, University of Economics and Business, Hanoi, Vietnam

²Quy Nhon University, Quy Nhon, Vietnam

This paper examines the impact of taxes on the economic growth based on classifying countries by GDP *per capita* and a tax burden. The Partitioning Around Medoids (PAM) technique is used because it is not too sensitive to outliers. Through this multicriteria classification technique, the Generalized Method of Moments (GMM) is employed to analyze the data of the three groups consisting of 63 countries from 2003 to 2017. The results show that most taxes have a positive impact on economic growth in poor countries (Group 1). Interestingly, taxes on goods and services promote economic growth in rich countries (Group 3), rather than having a negative effect, as is concluded by some previous studies. Specially, while the property tax has a negative effect on economic growth in rich countries, its impact is significantly positive in poor countries.

Keywords: tax structure, economic growth, clustering technique, GMM estimation

JEL Classification: E62, H0, O47

INTRODUCTION

The relationship between tax and economic growth has attracted a lot of attention in recent years. Theoretically, endogenous growth models show that the accumulation of productive capital can promote long-term economic growth. Therefore, any tax policy that changes the accumulation of physical capital and/or human capital can affect long-term economic growth (Romer, 1986; Lucas Jr, 1988; Barro,

1990). However, this effect can be either positive or negative because raising tax increases the likelihood of government spending, on the one hand, and crowds out private investments, on the other.

According to I. Palić, B. Žmuk and B. Grofelnik (2017), the impact of taxes on economic growth depends on the structure of the tax system. A proper tax system will help a government achieve national fiscal goals most effectively, limit undesirable distortions, minimize welfare losses, and ultimately promote economic growth (Stoilova, 2017). Previous research papers state that every adjustment of tax components can influence economic growth. For

* Correspondence to: L. K. Hoang, Vietnam National University, University of Economics and Business, No.144 Xuan Thuy street, Cau Giay, Hanoi, Vietnam;
e-mail: hoangkhaclich@gmail.com

example, R. Kneller, M. F. Bleaney and N. Gemmell (1999), J. M. Arnold, B. Brys, C. Heady, Å. Johansson, C. Schweltnus and L. Vartia (2011) and D. Baiardi, P. Profeta, R. Puglisi and S. Scabrosetti (2019) suggest that reducing the proportion of direct tax and increasing the proportion of indirect tax will positively impact economic growth. This adjustment is both to secure the budget revenue and to facilitate investment in the private sector.

It is worth noting that the tax structure may be optimal in one country, but it may not be as good in other countries, due to many reasons such as differences in the economic structure, political characteristics, society, a tax burden and governments' management ability. For instance, Sweden has a tax-to-GDP ratio of 43.9%, while the OECD countries' ratio is about 34.3%. Sweden's personal income tax rate is about 57%, the highest among all European countries, but its corporate income tax rate is the lowest, about 22%. It cannot be generalized that European countries or the US should learn from Sweden, or conversely, that Sweden should learn from the US's or European's tax systems because of the differences in the context of each country. In order to learn valuable lessons in restructuring the tax system, a good way is to examine a group of countries which are similar in terms of the level of economic development and the tax burden.

In fact, to examine different groups of countries, many studies have applied the classification of the World Bank (WB) or the International Monetary Fund (IMF). However, the WB and the IMF only use one criterion to classify countries, normally based on their geographical area or the GNI *per capita*. This classification ignores the similarities on other aspects, such as the ones related to a country's tax system. Additionally, some studies classify countries based on their own criteria: for example, A. Vasiliauskaitė and E. Stankevičius (2009) divide the European countries into six groups by GDP *per capita* with an equal income gap of EUR 5000/*per capita* before assessing the impact of a tax burden on economic growth. Similarly, P. LeMay-Boucher and K. McNabb (2014) and S. Acosta-Ormaechea, S. Sola and J. Yoo (2019) arrange countries into three groups based on the GDP *per capita* by the

three-percentile threshold, 33% and 66%, respectively. However, the equidistant grouping cannot highlight the similarities between the countries within the same group, and thus suggests applying a strictly statistical technique to identify the thresholds between the groups.

To the best of our knowledge, there are not many research studies on the fiscal policy classification of countries based purely on statistical techniques such as a classification by more than one criterion. Recently, A. Andrejovská and M. Hudáková (2016) have used a nonhierarchical clustering method, such as the K-means and the fuzzy c-means to divide the EU countries into five groups based on the common characteristics including corporate income tax, economic performance, and the public debt ratio. M. Zaharia, A. Pătrașcu, M. Gogonea, A. Tănăsescu and C. Popescu (2017) use hierarchical clustering to classify the EU-28 member states by a criterion representing the energy tax policy. In general, the common purpose of these works is to group countries with similarities in economic and fiscal indicators, depending on the research purpose of each paper. Under these classifications, each country's policy design has more information for reference; furthermore, making a general policy for the whole group becomes more effective.

A new classification method appropriate for doing research in the impact of taxes on economic growth is approached in this paper. Among the popular classification techniques, the Partitioning Around Medoids (PAM) clustering technique was chosen, because it is not too sensitive to outliers. Moreover, under small data sample conditions, PAM is considered to have good cluster performance (Kaufman & Rousseeuw, 1990; Park & Jun, 2009). In particular, countries are simultaneously classified according to the two criteria: the GDP *per capita* and a tax burden. Firstly, the development level of a country is reflected by its GDP *per capita*. Although this indicator is a single index showing the average income of people in the territory of a country, it implies a lot of information about the economic development level. Hence, it lays the basis for the classification of the World Bank intended to categorize countries as either

developed or developing ones. Secondly, a tax burden is measured by the ratio of tax to the GDP, indicating the proportion of the income that economic agents contribute to the government budget.

Thanks to the PAM clustering technique, the impact of the six types of taxes (namely corporate income tax, personal income tax, social security contributions, good and services tax, trade tax, and property tax) on economic growth is examined in three groups of countries. As will be seen later, average income and a tax burden gradually increase from Group 1 to Group 3. According to the foregoing, the hypotheses of this study read as follows:

H1: Personal income tax has a negative effect on economic growth.

H2: Corporation income tax negatively impacts economic growth.

H3: Property tax promotes economic growth.

H4: Trade tax positively affects economic growth.

H5: Goods and service tax has a negative effect on economic growth.

H6: Social security contribution negatively influences economic growth.

Stationary and cointegration tests are performed prior to using the difference and system generalized method-of-moments (GMM) estimators in order to examine the impact of taxes on economic growth. The data sample is the well-balanced panel data of 63 countries with 945 observations collected from the World Bank's database from 2003 to 2017.

The remaining part of the paper is structured as follows: the literature review is presented in Section 2, and the data and the methodology are presented in detail in Section 3; Section 4 is dedicated to the discussion on the research findings and the conclusion, and some policy suggestions are provided in Section 5.

LITERATURE REVIEW

The theoretical perspective

Theoretical models have described the mechanism in which taxes affect economic growth. Particularly, neoclassical models (Engen & Skinner, 1996; Lin, 1998; Zagler & Dürnecker, 2003) point out five channels, including:

- increasing corporate income and personal income taxes leads to a decrease in disposable income, which in turn results in a reduction of the savings rate, thus discouraging investment;
- increasing tax may encourage individuals to take up more leisure, which may lead to a decrease in the total labor supply, which negatively affects production;
- increasing tax restrains an improvement in labor productivity because it limits R&D activities and reduces the amount of venture capital for high-tech industries;
- taxes can reduce the marginal product of capital as it reduces investment in the high-productivity and high-tax economic sectors and makes an increase in the low-productivity and low-tax ones;
- increasing personal income tax may discourage workers from working in highly productive industries, but with a large tax burden.

However, neoclassical models argue that taxes do not affect long-term economic growth because the factors including savings and investments will only lead to growth in the short run. The law of the diminishing marginal product of capital will force the economy toward a stable state, where growth only depends on technological progress - which is considered as an exogenous factor in the model. Therefore, governments cannot control economic growth in the long run by fiscal policies. In contrast, endogenous growth models such as the AK model (Romer, 1986, Barro, 1990), the R&D model (Grossman & Helpman, 1991) and the human capital model (Lucas Jr, 1988) argue that taxes can have an impact on growth

in the long run. Specifically, capital is categorized into two types: physical capital and human capital. Investment in human capital leads to growth in the long run as it does not follow the law of diminishing marginal product. Thus, governments can provide tax incentives to encourage investment in education or to encourage the development of knowledge-intensive industries.

Empirical findings

There is a vast body of the literature examining the impact of taxes on economic growth. The previous studies approach the topic in various manners, such as by using different methods and datasets. Therefore, the results are usually inconsistent.

The impact of the corporate income tax

Most studies show that increasing the rate of the corporate income tax reduces net income and limits capital for reinvestment activities, especially for the investment activities related to productivity improvement, such as innovation and R&D, thereby affecting the overall productivity of the economy (Johansson, Heady, Arnold, Brys & Vartia, 2008; Karras & Furceri, 2009; Gemmell, Kneller & Sanz, 2011; Edame & Okoi, 2014). In addition to this, a high corporate income tax restricts FDIs, hindering technology transfer and knowledge sharing to local enterprises and consequently restraining economic growth. For example, Arnold *et al* (2011) examine the effect of income taxes on economic growth in the 21 OECD countries over the period from 1971 to 2004. The paper estimates the long-term effects of various revenue-neutral tax shifts using the estimated dynamic equation. The results show a negative coefficient on the share of (personal and corporate) income taxes in the total tax revenues, indicating that an increase in the share of these taxes that is balanced by a decrease in the share of the consumption and property taxes will reduce the long-term GDP *per capita*, thus reducing economic growth.

The impact of the personal income tax

An increase in the personal income tax, on the one hand, creates a substitution effect. Under the substitution effect, workers tend to replace working with leisure, which negatively affects economic growth. On the other hand, the personal income tax also causes income effects: as net income decreases, workers tend to cut on leisure to focus on working in order to compensate for taxed income. Furthermore, a rise in this tax demotivates learners' efforts as they perceive fewer benefits from learning, which consequently degrades the quality of labor and negatively affects economic growth. If used to invest in the infrastructure and education, however, this tax revenue will contribute to the quality of labor and economic growth (McClelland & Mok, 2012).

Many studies confirm the negative impact of the personal income tax on economic growth (Kneller *et al*, 1999; Widmalm, 2001; Gemmell *et al*, 2011). Notably, F. Widmalm (2001) finds a robust negative correlation between the two variables in the 23 OECD countries during the period from 1965 to 1990. This finding is consistent with the hypothesis that a progress tax is harmful for economic growth under a given tax rate since the personal income tax is levied in a progressive fashion in the largest number of the Western countries. By contrast, D. Stoilova (2017) applies two-stage least square (2SLS) estimates to show the positive effect of the personal income tax on economic growth in the EU-28 member states over the period between 1996 and 2013.

The impact of the goods and services tax

If the personal income tax is considered a progressive tax, the goods and services tax can be considered a regressive tax, in which the tax burden is put on the end users instead of suppliers - taxpayers. Moreover, the goods and services tax puts more pressure on the low-income group rather than the high-income one, because both these groups pay the same amount of tax when they consume goods and services. Unlike the personal income tax, the goods and services tax directly affects the market price and the inflation rate.

Thus, it might encourage savings, which leads to an increase in investment and economic growth.

The greatest number of empirical studies find that the goods and services tax negatively affects growth: for instance, the case of the 26 OECD countries (Karras & Furceri, 2015) and the case of the EU-28 countries (Stoilova, 2017). There are only a few studies claiming the positive impact of the goods and services tax on economic growth (Baiardi *et al*, 2019). The inconsistency in the findings might be due to the different taxation methods in each country. More specifically, if the goods and services tax is equally imposed on all products, it will have the same effect as the income tax. In the case of an unequally imposed tax, which is only applied to certain goods and services, the consumer's decision to make a purchase may be changed; this in turn leads to an expansion of or a decline in industries. The goods and services tax can promote economic growth if expansion is greater than the decline (Zagler & Dürnecker, 2003). If a goods and services tax policy is unstable and often changed, it will alter consumers' consumption choices, thus leading to a nonoptimal resource allocation. The imposition of the goods and services tax may result in the expansion of illegal economic activities, particularly so in more transactions on the black market, thus leading to a miscalculated GDP.

The impact of the property tax

Several research studies have found that the property tax negatively impacts economic growth (Xing, 2012; Baiardi *et al*, 2019). For instance, when property transactions or real estates are taxed, investors make incentives to transfer their investment from the real estate sector to the activities generating a bigger profit, and the economy consequently grows (Arnold *et al*, 2011). Besides, the property tax is considered to be an effective tax, because it barely touches the resource distribution and has a smaller impact on economic behaviors than the personal income tax does. The property tax is an efficient fund of local public services aiming to stimulate the growth of the economy and social welfare (Slack & Bird, 2014). In contrast to this, G. Karras and D. Furceri (2009) find

a negative impact of the property tax on economic growth, but the obtained result is not statistically significant. In spite of the vague argument, the property tax applied to housing transactions limits the transactions transferring real estate ownerships. Moreover, investment capital tends to be more mobile than housing capital, and investment properties should be taxed less than housing properties in order to stimulate the economy. In reality, however, investment capital is taxed more than housing capital, and the difference made by the property tax leads to a false decision on the property usage and promotes the personal usage of a property instead of the commercial and industrial usage of a property (Paugam & Maurer, 2001).

The impact of the trade tax

There is a debate among economists over whether taxes on international trade boost economic growth or not. S. Acosta-Ormaechea *et al* (2019), for example, study the relationship between trade taxes and the economic growth of 70 countries during the period between 1970 and 2009. The authors find that trade taxes have different effects on the economic growth of different country groups. In particular, trade taxes seem to have a negative impact on economic growth for low-income countries. Similarly, I. Khujamkulov (2016) states that trade taxes are often the major sources of revenue in lower-middle-income transitional countries, because they are easier and less costly to collect than income taxes. This result is found in 33 transition countries over the period from 1991 to 2014. Interestingly, N'Y. Nantob (2014) uses the system GMM estimator to analyze the effects of taxes on the economic growth of 47 developing countries during the period from 2000 to 2012. This study finds that there is a nonlinear (U-shaped) relationship between taxes on international trade and economic growth. This means that a low-level tax rate discourages economic growth in the short run, and then stimulates economic growth as the tax level increases.

The impact of the social contribution tax

The prior literature is often inconsistent with respect to the impact of the social contribution tax on economic growth. For example, while D. Stoilova (2017) reports a positive impact, R. Macek (2015), G. Karras and D. Furceri (2009) find a negative one. In particular, R. Macek (2015) evaluates the impact of taxes on economic growth by utilizing panel regression analysis on the OECD countries over the period from 2000 to 2011. The author states that the social security contribution is the most harmful for economic growth. In addition, the results also indicate that the government spending decreases economic growth. These results can be most probably linked to the existence of the crowding out effect and the structure of the total government spending where unproductive spending predominates. Unproductive spending is connected to the spending on social security, which has as the ultimate consequence a lower rate of economic growth. As far as the tax burden approximated by the tax quota is concerned, there is a negative relationship between economic growth and social security contributions.

DATA AND METHODOLOGY

Data

In this research study, the countries are classified based on the two criteria, simultaneously including the GDP *per capita* and the tax burden collected from the World Bank's database. The tax burden is measured by the total tax revenue on the GDP and is the indicator representing a country's tax policy. The GDP *per capita* is used as the indicator representing the economic development of a country (Wang, 2007). The control variables in the regression model are exports, savings, the investment rate in physical capital (as a percentage of the GDP), population growth, inflation (collected from the World Bank), and human development index (i.e, HDI, collected from the UNDP database). Finally, the taxes including the goods and services tax, the trade tax, the property

tax, the corporate income tax, the personal income tax, and social security contributions (measured by the tax/GDP ratio) are collected from the government revenue dataset.

Dropping out the countries that lack all the data pertaining to the period from 2003 to 2017, there are the data of 117 countries from the original dataset of 217 countries. Then, the countries are clustered according to the GDP *per capita* and the tax burden. The PAM result shows that the countries should be divided into three groups for all the years (Figure 1 and Figure 2). Average income and the tax burden gradually increase from Group 1 to Group 3. After the addition of the control variables to the clustered dataset and after the elimination of the countries containing the missing data for five consecutive years, a balanced data table of 945 observations of the 63 countries are obtained.

In terms of the tax structure, a large proportion in the total tax revenue is accounted for the goods and services tax, social security contributions, the personal income tax and the corporate income tax. The goods and services tax and social security contributions make up the biggest share of the total tax in the developed countries (Group 2 and Group 3). The personal income tax and social security contributions gradually increase from Group 1 to Group 3. In addition, the goods and services tax is the highest in Group 2. The trade tax decreases from Group 1 to Group 3, which is aligned with the findings of the previous studies (Bird & Zolt, 2008; LeMay-Boucher & McNabb, 2014).

Methodology

According to Y. Lee and R. H. Gordon (2005), the tax structure of rich countries is often different from that of the poor. Therefore, ignoring differences among countries can lead to endogeneity. By clustering countries with similarities in the GDP and the tax burden, said endogeneity was partly overcome. In order to cluster the countries, the PAM technique is used. This technique effectively processes noise data and the presence of outliers. The PAM algorithm proposed by L. Kaufman and P. J. Rousseeuw (1990)

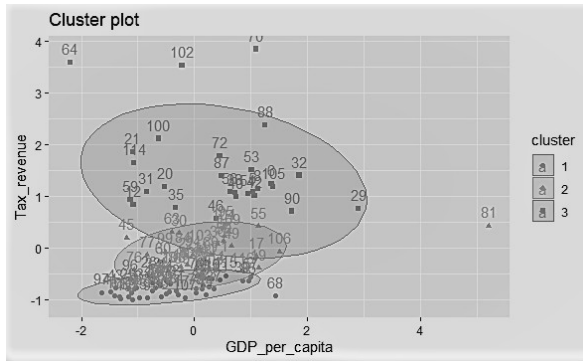


Figure 1 The country clusters in 2003

Source: Authors

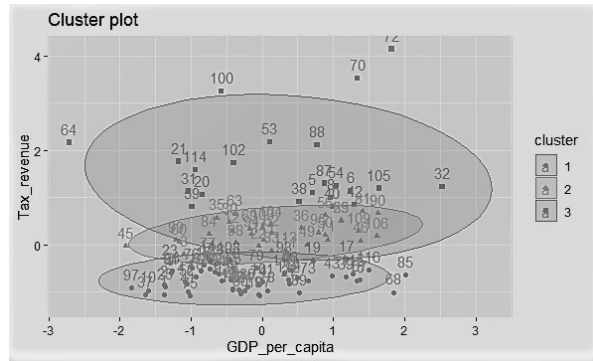


Figure 2 The country clusters in 2017

Source: Authors

is an extension of the K-Means algorithm that uses a medoid to represent data clusters (a medoid is the object located at the center of each cluster). Therefore, the medoid is less affected by particles far from the center. PAM initializes the k-medoid objects and distributes the remaining objects into the clusters corresponding to the other medoid objects, so that they are the most similar to the medoid object. The PAM algorithm helps find the countries that are virtually stable in each cluster over a period of 15 years (2003-2017). The number of the clusters is predicted by the Elbow method (Makles, 2012). The effectiveness of the clustering is based on the average of the silhouette index. The results show that the average silhouette is quite stable, the highest being 0.58 in 2017, and the lowest being 0.52 in 2008. The index also shows the highest similarity in Group 1 and the lowest similarity in Group 3.

After clustering the countries, panel regression analysis is carried out so as to examine the impact of the taxes on economic growth for every country group. Capital accumulation is considered the most important factor determining the growth of the economy (Rodrik, 1994; Lee, 1995). Both the classical growth models and the endogenous growth models indicate that economic growth is stimulated through the accumulation of physical capital and human capital (Solow, 1957; Lucas, 1988; Barro, 1990). To accumulate capital, a nation needs to create savings, invest from household savings, and accumulate

through the government policy. The countries with a high household savings rate tend to have a higher physical capital investment rate, which leads to the expansion of business activities and thus to the growth of the economy. The accumulation of physical capital also funds the fundamental public services such as the public infrastructure, the education expense, and the healthcare expense in order to support economic growth. In addition, the human development index (HDI) is also a measurement of the development level because it takes into account education through the adult literacy rate, the years of schooling, healthcare, and income. The other control variables in the regression equation are the population growth rate (Widmalm, 2001; Lee & Gordon, 2005), the savings (Lin, 1998), the export to the GDP ratio (Frankel & Romer, 1999; Dollar & Kraay, 2003), and the inflation rate (Friedman, 1977; Stockman, 1981).

Thus, the regression equation is written down as follows:

$$Y_{it} = \beta_0 + \beta_1 Y_{it-1} + \beta_2 T_{it} + \beta_3 X_{it} + \epsilon_i$$

where:

Y_{it} is the growth rate of the GDP *per capita*; T_{it} includes the tax variables: the corporate income tax, the personal income tax, the social security contributions, the goods and services tax, the trade tax, the property tax, and the other tax (in % of the GDP); X_{it} includes the control variables: population growth, gross

savings, export to the GDP ratio, the total tax burden, the human development index, the investment rate in physical capital and the inflation rate.

The panel data properties are tested for the stationarity and cointegration. The dependent variable (the growth rate of the GDP *per capita*) is found to be stationary for every country group. A decision was made to use the explanatory variables at the level data instead of the variable in the form of the differences, given the fact that the explanatory power with the R-squared by estimating the model with the explanatory variables in the form of the differences is weaker than that originating from the regression using the explanatory variables at the level data. To solve the endogenous problems more effectively, the generalized method-of-moments estimators are used. The instrumental variables are the lagged tax variables. The degree of the lagged variables is determined based upon the partial correlation test. The largest number of the instrumental variables in the three groups are one-year lagged variables. The J-statistic results confirm the proper use of the instrumental variable in the GMM regression (Table 1).

RESULTS

The conducted analysis provides the six main results.

First, the personal income tax is found to negatively affect the GDP *per capita* growth rate of the Group 1 countries (the poor countries group). Specifically, if the personal income tax increases by 1%, then these countries' GDP *per capita* growth rate will decline by 0.596%. The finding proves that the substitution effect overwhelms the income effect in Group 1. Additionally, increasing the personal income tax rate may demotivate the labor force because they notice a decline in the education benefit. The finding aligns with the hypothesis H1 of the paper and the previous studies by N. Gemmell, R. Kneller and I. Sanz (2011), F. Widmalm (2001), and R. Kneller *et al* (1999). However, no evidence whatsoever can be found for the impact of the personal income tax on the economic growth rate in Group 2 and Group 3 (the richer countries groups).

Second, the regression result indicates that the corporate income tax has a positive effect on the economic growth rate in both Group 1 and Group 2. Specifically, an increase of 1% in the corporate income tax raises the GDP *per capita* growth rate by 0.223% and 1.09% in Group 1 and Group 2, respectively. Therefore, the hypothesis H2 can be rejected. The finding is also aligned with the finding of D. Stoilova (2017). A possible explanation for this finding is that the corporate income tax is an important source of tax revenue funding investments in public services, which usually need to be paid more attention to in developing countries. Thus, the economic growth rate benefits from the corporate income tax.

Third, the goods and service tax is found to have a negative effect on the economic growth of Group 2, whereas it has a positive effect on the economic growth of Group 3. The finding is in contrast with the hypothesis H5 and the majority of the previous studies stating that the goods and services tax has a negative effect on economic growth. The result obtained in this research study is consistent with the study by D. Baiardi *et al* (2019). One possible explanation for that is that, even though the increase in underground economic activities cannot be quantified, it increases income for some economic sectors anyway (Johansson *et al*, 2008). This additional income also finances expenditures and investments, thus boosting economic growth. In addition, an uneven increase in the goods and services tax may lead to the expansion of or a decline in some economic sectors. As a result, economic growth can be promoted if the expansion portion is greater than the decline portion (Zagler & Dürnecker, 2003).

Fourth, the property tax has a significant positive impact on the economic growth rate of the Group 1 countries. The result shows that an increase of 1% in the property tax raises the GDP *per capita* growth rate by 2.012%, and the finding matches the hypothesis H3 and many other studies such as J. M. Arnold *et al* (2011) and S. Acosta-Ormaechea *et al* (2019). It is worth noticing that the property tax revenue only contributes 0.2 % to the GDP on average (the lowest between the three groups). The results, however, show that there is a negative impact of the property tax on the GDP *per capita* growth rate in Group 3, which is

Table 1 The GMM regression results

	Cluster 1	Cluster 2	Cluster 3
Personal income tax	-0.596*** (0.000)	0.191 (0.166)	0.952 (0.254)
Corporate income tax	0.223* (0.096)	1.090* (0.057)	-0.706 (0.627)
Property tax	2.012*** (0.001)	-0.390 (0.218)	-4.899** (0.018)
Goods and services tax	-0.0228 (0.796)	-0.416** (0.048)	2.660** (0.047)
Trade tax	0.476** (0.042)	3.064 (0.280)	10.289 (0.522)
Other tax	0.204 (0.656)	-1.029** (0.045)	-31.820 (0.206)
Social Security Contribution	-0.041 (0.640)	0.225 (0.109)	-1.717** (0.021)
Investment rate	0.173*** (0.000)	0.226*** (0.000)	0.202*** (0.000)
Inflation	-0.176*** (0.000)	-1.745** (0.019)	0.285 (0.391)
Export to GDP	-0.019 (0.172)	-0.006 (0.511)	0.028 (0.649)
Population growth	-0.912*** (0.000)	-1.879** (0.012)	-2.850* (0.106)
Gross saving	0.016 (0.456)	0.164* (0.079)	0.368 (0.313)
Human development index	-1.459 (0.683)	10.248 (0.482)	-28.926 (0.652)
Observations	364	247	208
Sargan test - Prob > chi ²	0.297	0.204	0.187

Note: * Significant at 10%, ** Significant at 5%, *** Significant at 1%

Source: Authors

the group with the highest property tax revenue to the aggregate GDP ratio (nine times higher than the Group 1). The finding aligns with the research studies conducted by A. Paugam and R. Maurer (2001) and M. Cabral and C. Hoxby (2012).

Fifth, the social security contributions have a negative relationship with the economic growth of the Group 3 countries, which is similar to the findings of G. Karras and D. Furceri (2009). If this type of tax

increases by 1%, the countries' GDP *per capita* growth rate will decrease by 1.717% for Group 3, which has the highest social security contribution rate by up to 9%. This result is also completely consistent with the hypothesis H6. The reason for this is that social security contributions finance social welfare, which largely do not generate economic growth, but rather have a negative impact on economic growth (Feldstein, 1974).

Sixth, the findings show that the trade tax does not affect economic growth in Groups 2 and 3, whereas it has a positive effect on economic growth in Group 1. Specifically, a 1% increase in the trade tax may lead to an increase in the GDP *per capita* growth rate for Group 1 by 0.476%. This outcome is in line with the findings of M. S. Tosun and S. Abizadeh (2005); O. H. Fjeldstad (2013); N.Y. Nantob (2014) and I. Khujamkulov (2016).

Several other control variables in the model also affect the GDP *per capita* growth rate. The investment rate has a positive impact on economic growth in all the three groups. Nonetheless, the population growth rate has a negative relationship with the dependent variable. In addition to those two control variables, inflation has a negative impact on economic growth both in Group 1 and in Group 2, while there is significant relationship in Group 3. Finally, the gross savings rate coefficient has no statistical significance in Group 1 and Group 3 but is statistically significant in Group 2. To conclude, the effect of the control variables mostly aligns with the prior studies.

CONCLUSION

The paper focuses on the relationship between the six types of taxes and the economic growth of 63 countries over the period from 2003 to 2017. The results show that only the personal income tax is statistically significant and negatively impacts the GDP *per capita* growth rate in Group 1, whereas the trade tax is only positive in this group. The social contribution tax is significant and negative in Group 3. The corporate income tax has a positive effect on economic growth in Group 1 and Group 2. The property tax is positively related in Group 1, whereas it is negative in Group 2. In contrast to this, the goods and services tax is negative in Group 2 and positive in Group 3. In addition, the impact of the control variables is also significantly noticeable. The investment rate in physical capital has a positive and significant effect on economic growth across all the three groups. Besides, inflation and population growth are negatively related to economic growth.

This paper contributes to the empirical literature on taxation by integrating and extending theoretical and empirical studies on the relationship between the tax structure and economic growth. An important finding is that a tax burden causes differences in the countries' tax structures, and different types of taxes have different effects on economic growth. Therefore, the article focuses on analyzing the impact of the tax structure on economic growth by grouping the countries based on the economic development level and the tax policy. This study has been successful in reclassifying the countries using the PAM clustering method to identify the three highly similar groups in terms of the GDP *per capita* and the tax burden. According to this classification, Group 1 includes the countries with low-to-moderate income (as defined by the World Bank). Some moderate-to-high and high-income countries fall into Group 2. The remaining wealthiest countries fall into Group 3.

Based on this classification, the analysis of the impact of the six types of taxes on economic growth in each group is a new and valuable contribution made by this research study. The paper, however, also faces difficulties in the missing data over many years. Adding the missing data from other reliable sources could be a good solution to increase the number of observations and expand the research period. Moreover, due to the limitations of the paper, no comparison has been made between the regression analysis results based on the classification presented in this paper and the findings based on the classification of the WB and other organizations. That may be an interesting research direction in subsequent papers.

ACKNOWLEDGEMENTS

This work was supported by the Vietnam National Foundation for Science and Technology Development (NAFOSTED) under the grant numbers 502.01-2018.308.

REFERENCES

- Acosta-Ormaechea, S., Sola, S., & Yoo, J. (2019). Tax composition and growth: A broad cross-country perspective. *German Economic Review*, 20(4), 70-106. doi.org/10.1111/geer.12156
- Andrejovská, A., & Hudáková, M. (2016). Classification of EU countries in the context of corporate income tax. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 64(5), 1699-1708. doi.org/10.11118/actaun201664051699
- Arnold, J. M., Brys, B., Heady, C., Johansson, Å., Schwellnus, C., & Vartia, L. (2011). Tax policy for economic recovery and growth. *The Economic Journal*, 121(550), 59-80. doi.org/10.1111/j.1468-0297.2010.02415.x
- Baiardi, D., Profeta, P., Puglisi, R., & Scabrosetti, S. (2019). Tax policy and economic growth: Does it really matter? *International Tax and Public Finance*, 26(2), 282-316. doi.org/10.1007/s10797-018-9494-3
- Barro, R. J. (1990). Government spending in a simple model of endogenous growth. *Journal of political economy*, 98(5, Part 2), 103-125. doi/abs/10.1086/261726
- Bird, R. M., & Zolt, E. M. (2008). Tax policy in emerging countries. *Environment and Planning C: Government and policy*, 26(1), 73-86. doi.org/10.1068/cav3
- Cabral, M., & Hoxby, C. (2012). The hated property tax: Saliency, tax rates, and tax revolts. *NBER Working Paper*, No.18514.
- Dollar, D., & Kraay, A. (2003). Institutions, trade, and growth. *Journal of monetary economics*, 50(1), 133-162. doi.org/10.1016/S0304-3932(02)00206-4
- Edame, G. E., & Okoi, W. W. (2014). The impact of taxation on investment and economic development in Nigeria. *Academic Journal of Interdisciplinary Studies*, 3(4), 209-218. doi.org/10.36941/ajis
- Engen, E. M., & Skinner, J. (1996). Taxation and economic growth. *National tax journal*, 49(4), 617-642.
- Feldstein, M. (1974). Social security, induced retirement, and aggregate capital accumulation. *Journal of political economy*, 82(5), 905-926. doi.org/10.1086/260246
- Feldstad, O. H. (2013). Taxation and development: A review of donor support to strengthen tax systems in developing countries. *UNU-WIDER Working paper*.
- Frankel, J. A., & Romer, D. H. (1999). Does trade cause growth? *American economic review*, 89(3), 379-399. doi.org/10.1257/aer.89.3.379
- Friedman, M. (1977). Nobel lecture: Inflation and unemployment. *Journal of political economy*, 85(3), 451-472. doi.org/10.1086/260579
- Gemmell, N., Kneller, R., & Sanz, I. (2011). The timing and persistence of fiscal policy impacts on growth: Evidence from OECD countries. *The Economic Journal*, 121(550), 33-58. doi.org/10.1111/j.1468-0297.2010.02414.x
- Grossman, G. M., & Helpman, E. (1991). Trade, knowledge spillovers, and growth. *European economic review*, 35(2-3), 517-526. doi.org/10.1016/0014-2921(91)90153-A
- Johansson, Å., Heady, C., Arnold, J., Brys, B., & Vartia, L. (2008). Taxation and economic growth. *Working Papers No 620*, OECD Economics Department. doi.org/10.1787/18151973
- Karras, G., & Furceri, D. (2009). Taxes and growth in Europe. *South-Eastern Europe Journal of Economics*, 7(2), 181-204.
- Kaufman, L., & Rousseeuw, P. J. (1990). *Finding Groups in Data: An Introduction to Cluster Analysis*. New Jersey, NJ: John Wiley & Sons.
- Khujamkulov, I. (2016). Tax revenues in transition countries: Structural changes and their policy implications, *WIDER Working Paper*, No. 2016/180
- Kneller, R., Bleaney, M. F., & Gemmell, N. (1999). Fiscal policy and growth: Evidence from OECD countries. *Journal of Public Economics*, 74(2), 171-190. doi.org/10.1016/S0047-2727(99)00022-5
- Lee, J. W. (1995). Capital goods imports and long-run growth. *Journal of Development Economics*, 48(1), 91-110.
- Lee, Y., & Gordon, R. H. (2005). Tax structure and economic growth. *Journal of Public Economics*, 89(5-6), 1027-1043. doi.org/10.1016/j.jpubeco.2004.07.002
- LeMay-Boucher, P., & McNabb, K. (2014). Tax structures, economic growth and development. *ICTD Working Paper 22*, Available at SSRN. doi.org/10.2139/ssrn.2496470
- Lin, S. (1998). Labor income taxation and human capital accumulation. *Journal of Public Economics*, 68(2), 291-302. doi.org/10.1016/S0047-2727(97)00094-7

- Lucas Jr, R. E. (1988). On the mechanics of economic development. *Journal of monetary economics*, 22(1), 3-42. doi.org/10.1016/0304-3932(88)90168-7
- Macek, R. (2015). The impact of taxation on economic growth: Case study of OECD countries. *Review of Economic Perspectives*, 14(4), 309-328, doi.org/10.1515/revecp-2015-0002
- Makles, A. (2012). Stata tip 110: How to get the optimal k-means cluster solution. *The Stata Journal*, 12(2), 347-351. doi.org/10.1177/1536867X1201200213
- McClelland, R., & Mok, S. (2012). A review of recent research on labor supply elasticities. *Working Paper 2012-12*, Washington, DC: Congressional Budget Office.
- Nantob, N'Yilimon. (2014). Taxes and economic growth in developing countries: A dynamic panel approach. *MPRA Paper No. 61346*, Togo, University of Lome.
- Palić, I., Žmuk, B., & Grofelnik, B. (2017). The long-run impact of personal income taxation on economic development: Evidence from Croatia. *Croatian Review of Economic, Business and Social Statistics*, 3(1), 35-44. doi.org/10.1515/crebss-2017-0003
- Paugam, A., & Maurer, R. (2001). Reform toward ad valorem property tax in transition economies: Fiscal and land use benefits. *Background Series 13*, World Bank.
- Park, H. -S., & Jun, C. -H. (2009). A simple and fast algorithm for K-medoids clustering. *Expert systems with applications*, 36(2), 3336-3341. doi.org/10.1016/j.eswa.2008.01.039
- Rodrik, D. (1994). Distributive politics and economic growth. *Quarterly Journal of Economics*, 109(2), 465-490. doi.org/10.2307/2118470
- Romer, P. M. (1986). Increasing returns and long-run growth. *Journal of political economy*, 94(5), 1002-1037. doi/abs/10.1086/261420
- Slack, E., & Bird, R. (2014). *The political economy of property tax reform*. OECD Working Papers on Fiscal Federalism. doi.org/10.1787/22265848
- Stockman, A. C. (1981). Anticipated inflation and the capital stock in a cash in-advance economy. *Journal of monetary economics*, 8(3), 387-393. doi.org/10.1016/0304-3932(81)90018-0
- Stoilova, D. (2017). Tax structure and economic growth: Evidence from the European Union. *Contaduría y Administración*, 62(3), 1041-1057. doi.org/10.1016/j.cya.2017.04.006
- Solow, R. M. (1957). Technical change and the aggregate production function. *Review of Economics and Statistics*, 39(3), 312-320. doi.org/10.2307/1926047
- Tosun, M. S. & Abizadeh, S. (2005). Economic growth and tax components: An analysis of tax change in OECD. *Applied Economics*, 37(19), 2251-2263. doi/abs/10.1080/00036840500293813
- Vasiliauskaitė, A., & Stankevičius, E. (2009). Tax burden management and GD growth: Case of EU countries. *Economics & Management*, 14, 202-209. doi:10.5755/j01.em.0.14.9301P
- Wang, D. H.-M. (2007). Convergence tests on tax burden and economic growth among China, Taiwan and the OECD countries. *Physica A: Statistical Mechanics and its Applications*, 380, 278-286. doi.org/10.1016/j.physa.2007.02.046
- Widmalm, F. (2001). Tax structure and growth: Are some taxes better than others? *Public Choice*, 107(3-4), 199-219. doi.org/10.1023/A:1010340017288
- Xing, J. (2012). Tax structure and growth: How robust is the empirical evidence? *Economics Letters*, 117(1), 379-382. doi.org/10.1016/j.econlet.2012.05.054
- Zagler, M., & Dürnecker, G. (2003). Fiscal policy and economic growth. *Journal of economic surveys*, 17(3), 397-418. doi.org/10.1111/1467-6419.00199
- Zaharia, M., Pătrașcu, A., Gogonea, M., Tănăsescu, A., & Popescu, C. (2017). A cluster design on the influence of energy taxation in shaping the new EU-28 economic paradigm. *Energies*, 10(2), 1-21. doi.org/10.3390/en10020257

Received on 3rd May 2021,
after revision,
accepted for publication on 25th November 2021
Published online on 6th December 2021

Lich Khac Hoang received his PhD degree from the University of the Thai Chamber of Commerce. He is currently a lecturer at the Faculty of Development Economics, VNU University of Economics and Business. His research interests include Economic Growth, Sustainable Development and Poverty Reduction.

Cao Tan Binh is Vice Director of Center of Economics and Accounting, Quy Nhon University, Vietnam; and a lecturer at the Department of Economics and Accounting, Quy Nhon University, Vietnam. He is currently a PhD Student in Probability theory and mathematical statistics, at the VNU University of Science, Vietnam. His research interests are Statistics, Financial mathematics, Econometrics, Stochastic Process.

Kim My Le is currently a lecturer at Quy Nhon University, majoring in Development Economics. She is interested in research topics such as household welfare, supply chain management, risk management, economic growth and sustainable economic development.

Dung Thi Thuy Nguyen is a lecturer who works for Quy Nhon University majoring Development Economics. Her research interest include economic growth, income inequality, women's empowerment and sustainable livelihood development.

OPOREZIVANJE I EKONOMSKI RAST: REGRESIONA ANALIZA ZASNOVANA NA NOVOJ KLASIFIKACIJI

Lich Khac Hoang¹, Binh Tan Cao², Kim My Le² i Dung Thi Thuy Nguyen²

¹Vietnam National University, University of Economics and Business, Hanoi, Vietnam

²Quy Nhon University, Quy Nhon, Vietnam

U radu se ispituje uticaj poreza na ekonomski rast, zasnovan na analizi indikatora BDP-a *per capita* i poreskih obavezah, za zemlje koje su razvrstane u tri grupe, prema nivou razvijenosti. Koristi se tehnika particionisanja oko medoida (*PAM* tehnika), zato što ista nije preosetljiva na izuzetke. Ova višekriterijumska tehnika podrazumeva korišćenje metoda uopštenih momenata (*GMM*) za analizu podataka, za tri grupe koje čine 63 zemlje, u periodu 2003-2017. Rezultati istraživanja pokazuju da većina poreza ostvaruje pozitivan uticaj na ekonomski rast u siromašnim zemljama (Grupa 1). Ukazuje se da porezi na robu i usluge promovišu ekonomski rast u bogatim zemljama (Grupa 3), umesto da imaju negativan učinak, kao što se zaključuje u nekim prethodnim studijama. To se posebno odnosi na porez na imovinu koji, dok ostvaruje negativan učinak na ekonomski rast u bogatim zemljama, ima značajno pozitivan učinak u siromašnim zemljama.

Ključne reči: poreska struktura, ekonomski rast, tehnika formiranja klastera, *GMM* procena

JEL Classification: E62, Ho, O47

APPENDIX

Table 1 The descriptive statistics

Variable	Classified Group	Obs	Mean	Std. Dev	Min	Max
GDP per capita growth rate	Group 1	420	3.58	3.89	-14.38	17.03
	Group 2	285	0.79	2.98	-8.51	23.98
	Group 3	240	1.53	3.66	-14.277	10.8
Personal income tax	Group 1	420	2.2	2.1	0	9.9
	Group 2	285	4.2	1.7	0.9	8.3
	Group 3	240	10.4	4.2	4.3	26.2
Corporate income tax	Group 1	420	2.7	1.5	0	8.1
	Group 2	285	2.6	1	0.8	6.5
	Group 3	240	3	1	1.2	7.2
Property tax	Group 1	420	0.2	0.3	0	1.6
	Group 2	285	0.6	0.6	0	2.9
	Group 3	240	1.8	1	0.2	4.2
Trade tax	Group 1	420	2.3	4.3	-1.6	0
	Group 2	285	0.3	0.5	-0.01	3.9
	Group 3	240	0.08	0.15	-0.007	0.86
Good and Service tax	Group 1	420	8.8	3.5	2.4	22.1
	Group 2	285	11.9	2.7	4.1	17.3
	Group 3	240	10.2	3	4	16.7
Other tax	Group 1	420	0.37	0.6	-0.000512	4.8
	Group 2	285	0.17	0.39	-0.39	3.38
	Group 3	240	0.12	0.3	0	1.5
Social Security Contribution	Group 1	420	2.04	3.7	-0.05	15.5
	Group 2	285	8.4	4.4	0	15
	Group 3	240	8.99	4.96	0	16.92
Inflation	Group 1	420	6.14	5.94	-18.11	51.46
	Group 2	285	3.29	3.09	-1.54	21.6
	Group 3	240	1.54	1.22	-4.48	4.9
Investment rate	Group 1	420	5.59	14.97	-57.4	53.98
	Group 2	285	1.91	9.74	-23.85	52.08
	Group 3	240	1.29	13.44	-42.33	72.17
Export to GDP	Group 1	420	36.54	12.25	11.15	71.42
	Group 2	285	55.32	27.94	20.45	165.21
	Group 3	240	53.73	41.83	9.04	224.84
Population growth	Group 1	420	1.14	1.04	-1.75	5.43
	Group 2	285	0.19	0.91	-2.26	2.74
	Group 3	240	0.75	0.6	-1.85	2.89
Gross saving	Group 1	420	22.78	10.23	3.84	53.05
	Group 2	285	21.85	41.87	9.73	36.12
	Group 3	240	24.61	5.6	11.05	39.66
Human development index	Group 1	420	0.69	0.07	0.5	0.81
	Group 2	285	0.9	0.02	0.85	0.94
	Group 3	240	0.87	0.03	0.8	0.92

Source: Authors

Table 2 The countries classification

Group 1	Group 2	Group 3
Armenia	Bulgaria	Australia
Bangladesh	Chile	Austria
Bosnia and Herzegovina	Czechia	Belgium
Bhutan	Estonia	Canada
China	Croatia	Switzerland
Cabo Verde	Hungary	Germany
Costa Rica	Israel	Denmark
Dominican Republic	Korea, Rep.	Finland
Ghana	Lithuania	France
Guatemala	Latvia	United Kingdom
Honduras	Mexico	Ireland
Jamaica	Malta	Japan
Jordan	Mauritius	Luxembourg
Cambodia	Poland	Netherlands
Sri Lanka	Portugal	Sweden
Lesotho	Romania	United States
Morocco	Slovakia	
Moldova	Slovenia	
Nicaragua	Turkey	
Peru		
Philippines		
Paraguay		
El Salvador		
Togo		
Thailand		
Tunisia		
Ukraine		
South Africa		

Source: Authors

Izvorni naučni članak

UDK: 005,72

doi:10.5937/ekonhor2103241B

AUTONOMIJA I ANGAŽOVANOST ZAPOSLENIH U DIGITALNOJ ERI: MODERATORSKA ULOGA RADA NA DALJINU

Aleksandra Bošković*

Ekonomski fakultet Univerziteta u Kragujevcu

U eri digitalizacije, tradicionalni faktori uspeha preduzeća dovedeni su u pitanje, pa je potrebno preispitati ustaljene obrasce rada i ispitati nove načine za stvaranje održive vrednosti. Obzirom da ljudi, kao nosioci znanja, predstavljaju ključne pokretače vrednosti, neophodno je istražiti načine za unapređenje njihovog potencijala. Cilj istraživanja u radu jeste da se pokaže da autonomija doprinosi unapređenju angažovanosti zaposlenih u digitalnom okruženju, a posebno u uslovima rada na daljinu. U tom smislu, objašnjen je koncept angažovanosti zaposlenih, kao stanja visoke energije, posvećenosti i okupiranosti poslom i ukazano je na moguće načine za unapređenje angažovanosti, kroz povećanje autonomije. Empirijskim istraživanjem je potvrđeno da autonomija pozitivno utiče na energiju i posvećenost, kao dimenzije angažovanosti, kao i da je uticaj na energiju jači kod zaposlenih koji rade na daljinu.

Ključne reči: autonomija, dizajn posla, angažovanost zaposlenih, rad na daljinu, digitalno okruženje, organizacioni dizajn

JEL Classification: M20, M12, J28

UVOD

Psihološka povezanost zaposlenih sa poslom predstavlja polje istraživanja koje dobija na značaju u ekonomiji znanja i u uslovima ubrzanog tehnološkog napretka, kada ljudski kapital postaje sve bitniji pokretač konkurentnosti preduzeća i privrede. Razvoj sofisticiranih veština, koje dovode do superiornih performansi, zavisi od spleta složenih organizacionih,

intelektualnih, psiholoških, socioloških i drugih faktora.

U eri znanja, inovacija i tehnološkog napretka, konkurenska prednost preduzeća zavisi od generisanja i implementacije novih ideja, kao i primene novih tehnologija (Simić, Slavković & Ognjanović, 2020; Savović, Zlatanović & Nikolić, 2021). Obzirom da su ljudi ključni nosioci znanja i kapaciteta za inovacije, savremene organizacije zahtevaju od zaposlenih visoku posvećenost, ulaganje i energičnost, kako bi, u izrazito dinamičnom okruženju, stvarali održivu vrednost. Česte promene i izraženi pritisci

* Korespondencija: A. Bošković, Ekonomski fakultet Univerziteta u Kragujevcu, Liceja Kneževine Srbije 3, 34000 Kragujevac, Republika Srbija; e-mail: aboskovic@kg.ac.rs

na ljude da se brzo prilagođavaju istim, obavljajući sve složenije i kognitivno zahtevnije zadatke, mogu dovesti do oprečnih efekata. Prema teoriji zahteva posla i resursa (*Job Demands-Resources Theory*), zahtevi mogu biti shvaćeni kao izazovi ili smetnje, što će implicirati pozitivan ili negativan odgovor zaposlenih. Negativne reakcije su povezane sa preopterećenošću, stresom i izgaranjem na poslu, dok se pozitivne reakcije očekuju u slučaju kada zaposleni razvijaju visoku angažovanost, odnosno, energičnost, posvećenost i okupiranost poslom (Bakker & Demerouti, 2007).

Brojni faktori formiraju okolnosti u kojima se reakcije zaposlenih oblikuju, ali se među najznačajnijim pretpostavkama angažovanosti izdvaja organizacioni kontekst, posebno način na koji je posao dizajniran. Prethodna istraživanja ukazuju na bitnu ulogu autonomije na radnom mestu (Kahn, 1990; Saks, 2006; Christian, Garza & Slaughter, 2011; Shantz, Alfes, Truss & Soane, 2013; Radošević, Jelić, Matanović i Popov, 2018). Autonomija proizilazi iz većeg stepena decentralizacije, tako da je karakteristična za savremene strukture koje su ravnije, odnosno, imaju manji broj hijerarhijskih nivoa. Ovakve strukture pogoduju razvoju inovativnosti i preduzetničkog kapaciteta u preduzeću (Erić Nielsen, Babić, Stojanović-Aleksić & Nikolić, 2019; Erić Nielsen, 2020). Sloboda, koju zaposleni imaju na svom poslu, podstiče kreativnost i omogućava lakše prilagođavanje promenama. U tom kontekstu, razvili su se i novi modeli liderstva koji podržavaju ideju da deo moći, pod određenim uslovima, treba biti prenet na same sledbenike, kako bi oni i čitava organizacija ostvarivali nadprosečne rezultate (Stojanović-Aleksić, 2016).

Ovo je naročito važno u eri digitalizacije, koju karakterišu ekspanzionalne promene i to ne samo u razvoju tehnologije, nego i u ekonomiji i društvu. Postojeća istraživanja nisu dovoljno empirijski ispitala ulogu autonomije u ovakvom, specifičnom kontekstu. Iako teorija ukazuje na benefite autonomije, kako u pogledu zadovoljenja određenih psiholoških potreba, tako i opšte dobrobiti pojedinca, retko se uzima u obzir digitalno

okruženje kao kontekst ispitivanja veze između autonomije i angažovanosti. U uslovima u kojima je veza između ljudi i mašina postala skoro podjednako važna kao međuljudski odnosi, potrebno je preispitivati tradicionalne mehanizme podsticanja angažovanja i tražiti nove načine ili faktore koji posredno mogu doprineti izgradnji dugoročne i održive angažovanosti zaposlenih, koja će doprineti njihovoj ličnoj satisfakciji, boljem osećaju na poslu i u životu, ali i porastu produktivnosti i inovativnosti preduzeća (Halbesleben, 2010; Christian *et al*, 2011; Kwon & Kim, 2020).

Imajući u vidu značaj problemskog područja, predmet istraživanja u radu jeste povezanost autonomije na radnom mestu i angažovanosti zaposlenih u digitalnom okruženju. U ovom radu, pod digitalnim okruženjem podrazumeva se ono poslovno okruženje u kojem se intenzivno koristi IKT u obavljanju zadataka. Shodno ovako opredeljenom predmetu, osnovni cilj istraživanja jeste da se utvrdi da li i na koji način autonomija utiče na angažovanost zaposlenih u sektoru informacionih tehnologija (IT), koji predstavlja primer delatnosti sa izraženom dimenzijom digitalnog okruženja.

U vezi sa autonomijom, važno je razmotriti i jedan od relativno novijih trendova u organizacionom dizajnu, koji se ističe u digitalnom okruženju, a odnosi se na rad na daljinu. Savremena tehnologija je omogućila, a novije forme organizacionog dizajna podržale, implementaciju ideje da fizička lokacija za obavljanje posla nije uvek bitna i da neki poslovi mogu da se obavljaju i van kancelarije, na lokaciji koju zaposleni sam bira (kuća, stan, biblioteka, park, kafeterija). Ovaj trend se još brže razvio usled pandemije Covid-19, zbog koje su neke vlade uvele čak i obavezu za firme da omoguće svojim zaposlenima rad na daljinu, konkretno, od kuće (Pattnaik & Jena, 2020). Ovu mogućnost je, svakako, lakše primeniti na poslovima koji se obavljaju na računaru i nisu visoko zavisni od lokacije/ličnog kontakta, kao što je slučaj, između ostalog, u IT sektoru. Iako rad na daljinu ima svoje nedostatke, vezane za izolovanost i smanjenje socijalnih interakcija, istraživanja, ipak, ukazuju

na dominantnost pozitivnih implikacija. Među najznačajnijim koristima koje se ostvaruju prilikom rada na daljinu, ističu se: niži troškovi (Thomson, 2008), prijatniji ambijent u kome se zaposleni lakše posvećuje obavljanju kompleksnih zadataka (Golden & Gajendran, 2019), veća satisfakcija i odgovorno ponašanje, što vodi i većoj angažovanosti (Anderson & Kelliher, 2009). Osnovna prednost rada na daljinu, trebalo bi da bude veća sloboda izbora u pogledu mesta, vremena i načina obavljanja zadataka. Ukoliko zaposlenima nije omogućena autonomija prilikom rada na daljinu, pozitivne implikacije ovog koncepta se, možda, neće ispoljiti. Zbog toga, poseban cilj istraživanja jeste utvrđivanje moderatorskog uticaja rada na daljinu u odnosu između autonomije i angažovanosti zaposlenih.

U radu je primenjena kvalitativna i kvantitativna metodologija. Shodno složenoj, dinamičnoj i višeznačnoj prirodi razmatranih fenomena, oslonac je u primeni sistemskog mišljenja. Primenjeni su metodi analize i sinteze, apstrakcije i konkretizacije, kao i indukcije i dedukcije. Kada je kvantitativna metodologija u pitanju, korišćen je statistički metod. Podaci su prikupljeni anketom, a analizirani različitim statističkim tehnikama.

Pored Uvoda i Zaključka, rad se sastoji iz: pregleda literature, na osnovu kojeg su razvijene istraživačke hipoteze, i empirijskog istraživanja, kojim su hipoteze testirane. U okviru pregleda literature, razjašnjena je suština koncepta angažovanosti i istaknuti su ključni faktori koji utiču na razvoj angažovanosti zaposlenih u savremenim preduzećima. Zatim je posebno elaborirana uloga dizajna posla, kao faktora angažovanosti, a onda i autonomije kao ključne karakteristike dizajna posla, čiji su efekti na angažovanost najviše izraženi u digitalnom poslovnom okruženju. Ukazano je na moguće moderatorske efekte rada na daljinu, kao posebne okolnosti u kojim se pozitivni efekti autonomije na angažovanost povećavaju. Objašnjena je metodologija, a zatim su predstavljeni i diskutovani dobijeni rezultati.

PREGLED LITERATURE I RAZVOJ HIPOTEZA

Koncept angažovanosti zaposlenih

Angažovanost predstavlja relativno nov pojam u naučnoj literaturi, ali je u menadžerskoj praksi poznat već decenijama. Najpoznatije konsultantske kompanije širom sveta za jedan od ključnih ciljeva postavljaju unapređenje angažovanosti zaposlenih, kao faktora koji povećava profitabilnost kroz povećanje produktivnosti, ali i satisfakcije zaposlenih i klijenata (Schaufeli & Bakker, 2010). Kasnija istraživanja su pokazala da angažovanost ima niz pozitivnih implikacija kako na individualnom, tako i na organizacionom nivou. Iz perspektive pozitivne psihologije, angažovanost na poslu doprinosi potrebi pojedinaca da vode ispunjen život u svakom aspektu (Youssef-Morgan & Bockorny, 2014). Stoga se može očekivati da su zaposleni, koji razvijaju visok stepen angažovanosti, i zadovoljniji. Postoje i određeni pokazatelji boljeg fizičkog i mentalnog zdravlja kod visoko angažovanih radnika (Johns, 2012; Shuck, Ghosh, Zigarmi & Nimon, 2012). Angažovani pojedinci su, uglavnom, produktivniji, a pokazuju i veći stepen kreativnosti i proaktivnosti. Organizacije koje uspevaju da razviju visoku angažovanost kod zaposlenih, mogu očekivati i bolje finansijske rezultate u dugom roku (Macey, Schneider, Barbera & Young, 2009). Smatra se da upravo ova dualna dimenzija koristi od angažovanosti (za pojedince i za organizaciju), čini ovaj fenomen toliko značajnim.

Koncept dobija pažnju u literaturi od kada je W. Kahn (1990, 700) definisao angažovanost kao „istovremeno uključivanje i ispoljavanje ličnosti (*preferred self*) prilikom rada i ponašanja na poslu, koje promovise povezanost sa poslom i drugima, ličnu prisutnost (fizičku, kognitivnu i emocionalnu) i aktivno ostvarivanje performansi”. Autor vidi angažovanost kao potpuno unošenje sebe, fizički, kognitivno i emocionalno, u posao ili radnu ulogu. Osoba uspostavlja neku vrstu simbiotske veze sa poslom koji radi i to je čini srećnom.

U literaturi postoji relativno visok stepen saglasnosti o tome da je angažovanost jedinstven i distinktivan motivacioni koncept, koji se može opisati kroz tri dimenzije (Salanova, Agut & Peiró, 2005) - energičnost, posvećenost i apsorbciju. Energičnost (*vigor*) se odnosi na visok nivo spremnosti da se uloži napor u rad, bez obzira na potencijalne teškoće. Posvećenost ili predanost (*dedication*) ukazuje na visoku inspirisanost poslom, entuzijazam i osećaj ponosa zbog obavljenih zadataka. Apsorbcija se prevodi i kao okupiranost (*absorption*) i podrazumeva potpunu udubljenost u radne zadatke i aktivnosti, kao i teškoću koju osoba ima da prestane sa radom.

Glavna specifičnost koncepta angažovanosti, naročito kao svojevrsnog pokazatelja uspeha preduzeća, jeste u tome što se ne može narediti, a vrlo teško se može i neopredno kontrolisati. Kreira se kroz dugoročno građenje odnosa sa ljudima u organizaciji i razvoj prijatnog radnog okruženja. Od nastanka koncepta, istraživači nastoje da utvrde sve relevantne pretpostavke, odnosno, faktore angažovanosti, kako bi pronašli što konkretnije i detaljnije odgovore na pitanje kako izgraditi angažovanu radnu snagu. Pregledom literature, identifikovani su određeni faktori angažovanosti, koji se mogu svrstati u dve široke kategorije: individualni i organizacioni faktori.

Individualni faktori se odnose na različite koncepte povezane sa ličnošću pojedinca, kao što su lični resursi i karakteristike ličnosti. Prema teoriji poslovnih zahteva i resursa (*Job Demands - Resources Theory*), lični resursi, koji se ističu kao ključni faktori angažovanosti, su: samoeфикаsnost, odnosno, verovanje u sopstvenu sposobnost da se efikasno odgovori na zahteve različitih situacija, kao i optimizam, to jest, pogled na svet, odnosno, verovanje da će se stvari odvijati u željenom pravcu, što povećava entuzijazam i želju za ulaganjem sebe u radnu ulogu (Crawford, Rich, Buckman & Bergeron, 2014). Pored ličnih resursa, smatra se da postoje i određene lične karakteristike koje utiču na angažovanost, iako dokazi za ovu pretpostavku nisu čvrsto teorijski utemeljeni i empirijski dokazani kroz veći broj istraživanja. Određene studije su pokazale da karakteristike među kojima su savesnost, proaktivnost i pozitivan afekt, imaju pozitivnu korelaciju sa angažovanošću

(Saks & Gruman, 2014). Takođe, određeni empirijski podaci ukazuju na to da otvorenost i ekstrovertnost predstavljaju najznačajnije faktore angažovanosti među karakteristikama koje čine grupu velikih pet (Wollard & Shuck, 2011). Imajući u vidu važnost ličnih karakteristika kao faktora organizacionog ponašanja, ali i ponašanja i života ljudi, uopšte, u literaturi postoji veliki nedostatak istraživanja ovih pitanja.

Organizacioni faktori angažovanosti zaposlenih se mogu javiti na nivou posla, grupe/tima i organizacije. Među najznačajnijima su: karakteristike posla, liderstvo, organizaciona pravda i organizaciona podrška. Karakteristike posla se smatraju najznačajnijim faktorima koji utiče na angažovanost zaposlenih. Iako sve karakteristike posla mogu uticati na angažovanost, na osnovu rezultata postojećih empirijskih istraživanja se mogu istaći sledeće: autonomija, kompleksnost posla, rešavanje problema, raznovrsnost zadataka, povratna informacija iz posla i od drugih, sklad ličnost-posao, mogućnosti za razvoj, socijalna podrška (Crawford, LePine & Rich, 2010; Christian *et al*, 2011).

Značaj dizajna posla za razvoj angažovanosti

Dizajn posla predstavlja sistem kojim se organizuje obavljanje određenog posla (Sinha & Van de Ven, 2005, 390). Brojna su svojstva kojima se jedan posao može opisati, ali jedna od najsveobuhvatnijih klasifikacija izdvaja tri osnovne dimenzije posla (Morgeson & Humphry, 2006): dimenziju zadatka, kojom se opisuje struktura zadataka koji čine posao (strukturalna dimenzija), dimenziju znanja, koja sadrži karakteristike znanja potrebnih za izvršavanje zadataka (kognitivna dimenzija) i dimenziju kojom se opisuju socijalne interakcije na poslu (socijalna dimenzija). Strukturalna dimenzija obuhvata sledeće karakteristike: autonomija, raznovrsnost, značaj i identitet zadataka, kao i povratna sprega sa poslom. Kognitivna dimenzija uključuje: složenost posla, stepen obrade informacija, rešavanje problema raznovrsnim veštinama i specijalizaciju. Socijalna dimenzija odnosi se na socijalnu podršku, međuzavisnost sa kolegama, interakcije i povratne

informacije (Morgeson & Humphry, 2006). Pored tri osnovne dimenzije posla, dizajn posla uključuje i dimenziju konteksta (ergonomija, fizički uslovi rada itd.), kao i karakteristike samih zaposlenih. U ovom radu, fokus će biti na tri osnovne dimenzije posla.

Polaznu, teorijsko-metodološku osnovu za razmatranje veze između dizajna posla i angažovanosti zaposlenih, postavlja teorija zahteva posla i resursa, koja polazi od pitanja zašto su neki ljudi iscrpljeni poslom, dok drugi osećaju entuzijazam i energiju prilikom rada? Odgovor na ovo pitanje traži se u konceptu dizajna posla. Teorija predstavlja proširenje modela zahteva posla i resursa koji su postavili E. Demerouti, A. B. Bakker, F. Nachreiner i W. B. Schaufeli (2001), a dalje razvili A. B. Bakker i E. Demerouti (2007). Istraživači su identifikovali ograničenja postojećih modela dobrobiti zaposlenih i stresa na radnom mestu (model zahtevi-kontrola i model (ne)ravnoteže ulaganja i nagrada), koji su bili previše pojednostavljeni i statični, jer su se bavili ograničenim brojem promenljivih i nisu se odnosili na sve ljude ili delatnosti. Kako bi se prevazišla uočena ograničenja, model zahteva posla i resursa je obuhvatio širok spektar varijabli i zasnovan je na pretpostavci da svako zanimanje može imati specifične faktore rizika povezane sa stresom na poslu i angažovanošću, a ovi faktori se mogu podeliti u dve opšte grupe, nazvane zahtevi i resursi.

Zahtevi su fizički, psihološki, socijalni ili organizacioni aspekti posla, koji zahtevaju stalne napore ili veštine i zbog toga su povezani sa određenim fiziološkim i/ili psihološkim troškovima - stalni radni pritisak, nepovoljno fizičko okruženje i emocionalno zahtevne interakcije sa klijentima (Bakker & Demerouti, 2007, 312). Iako poslovni zahtevi ne moraju nužno biti negativni, oni uvek zahtevaju izvestan napor. Ponekad, ukoliko zaposleni nije u stanju da odgovori na zahteve, to može dovesti do negativnih posledica, kao što su stres, izgaranje i zdravstveni problemi. Zahtevi mogu biti klasifikovani kao: izazovi (radne odgovornosti, rokovi, obim posla), ili smetnje (emocionalni/afektivni sukob, organizaciona politika) (Crawford *et al*, 2010). Prema tome, odnos između zahteva posla i angažovanosti zavisi od vrste zahteva,

tako da su izazovi povezani pozitivno, a smetnje su negativno povezane sa angažovanjem.

Poslovni resursi se definišu kao „oni fizički, psihološki, socijalni ili organizacioni aspekti posla koji doprinose postizanju radnih ciljeva ili smanjuju poslovne zahteve i povezane fiziološke i psihološke troškove ili podstiču lični rast, učenje i razvoj” (Bakker & Demerouti, 2007, 312). Resursi nisu isključivo usmereni ka rešavanju zahteva, već imaju i motivacionu ulogu. Interni faktori motivacije dolaze iz resursa koji podstiču lični rast zaposlenih, dok eksterni faktori motivacije potiču iz onih resursa koji su ključni instrumenti za postizanje radnih ciljeva. Resursi za posao se mogu nalaziti na nivou organizacije, u međuljudskim i socijalnim odnosima, kao i na nivou dizajna poslova. Neki od primera resursa na nivou posla su: autonomija, kreativni zadaci, podrška od strane nadređenog i kolega.

Stres i izgaranje na poslu će se pojaviti kada su zahtevi visoki, a dostupni resursi niski. Međutim, resursi mogu umanjiti negativne efekte zahteva (Bakker, Demerouti, Taris, Schaufeli & Schreurs, 2003) i podstaći motivaciju i angažovanje.

Autonomija kao faktor angažovanosti zaposlenih u IT sektoru

Autonomija može biti shvaćena kao „sloboda koju pojedinac ima u obavljanju posla” (Humphrey, Nahrgang & Morgeson, 2007, 1333), ili kao stepen do koga posao dozvoljava slobodu, nezavisnost i diskreciona prava pojedinca u pogledu izbora redosleda radnih aktivnosti, metoda rada i odlučivanja (Morgeson & Humphrey, 2006). Prema tome, autonomija ima četiri aspekta, koja se odnose na:

- planiranje redosleda rada,
- izbor metoda rada,
- izbor mesta za rad, i
- generalno odlučivanje o poslu.

Autonomija može biti stvarna i percipirana. Stvarna autonomija se odnosi na realno dodeljen stepen

slobode zaposlenom za odlučivanje o organizovanju svog posla, a percipirana autonomija označava stepen u kome zaposleni veruje da ima slobodu da samostalno organizuje svoj posao. Smatra se da i stvarna i percipirana autonomija utiču na angažovanost. Prema teoriji samodeterminacije, potreba za autonomijom je jedan od tri ključna preduslova za razvoj angažovanosti, pored potreba za razvojem kompetentnosti i za povezivanjem (Ryan & Deci, 2000).

U eri digitalizacije dolazi do brojnih promena u dizajnu poslova. Polazeći od toga da neke poslove više ne obavljaju ljudi, nego mašine, uključujući i poslove koji zahtevaju intelektualne napore, za čije potrebe se primenjuje veštačka inteligencija, preko promena u tradicionalnim karakteristikama posla, do pojave potpuno novih poslova i zadataka. Ključna promena se ogleda u tome što je tehnologija omogućila brže i lakše prikupljanje i obradu velike količine informacija, što, istovremeno, neke zadatke čini jednostavnijim, a druge složenijim. To implicira promene u dizajnu poslova koji se odnose na povećanje broja zadataka koje jedna osoba može obaviti, ali i povećanje njihove kompleksnosti. U složenom i neizvesnom okruženju, ograničenja koja se tiču mentalnih kapaciteta svakog pojedinca, kao donosioca odluka, kao i pristupa velikom broju informacija (Nikolić, 2018), postaju sve izraženiji, pa se autoritet nužno mora delegirati kako ne bi došlo do grešaka u procesu odlučivanja i smanjenja kvaliteta odluka.

S druge strane, savremeno konkurentsko okruženje zahteva od organizacija visoku agilnost i inovativnost kako bi opstale i razvijale se (Crocitto & Youssef, 2003; Tallon & Pinsonneault, 2011; Teece, Peteraf & Leih, 2016). Na nivou posla, to znači brzo suočavanje sa izazovima i visoku kreativnost. Smatra se da, sa povećanjem autonomije, zaposleni mogu uspešno odgovoriti na ove izazove. Tačnije, autonomija doprinosi kreativnosti i respozivnosti zaposlenih, pod uslovima da zaposleni imaju adekvatno znanje i iskustvo, kao i strast prema poslu (Liu, Chen & Yao, 2011; Chang, Huang & Choi, 2012).

U novije vreme, ističu se pozitivne implikacije koncepta „krojenja posla“ (*job crafting*), koji

podrazumeva izrazito visok nivo autonomije, odnosno, potpunu slobodu zaposlenih da način rada prilagođavaju po sopstvenom nahođenju, a imajući u vidu kako lične, tako i organizacione potrebe. Koncept uključuje promene u strukturi posla, vezama sa drugim poslovima, kognitivnim zahtevima itd, (Wrzesniewski & Dutton, 2001). Istraživanja su pokazala da ovako visok stepen slobode može imati izuzetno snažan motivacioni potencijal, što dovodi i do boljeg učinka (Bakker, Tims & Derks, 2012; McClelland, Leach, Clegg & McGowan, 2014).

Iako većina savremenih istraživanja ističe važnu ulogu autonomije u unapređenju performansi pojedinaca, njihovog zadovoljstva, inovativnog ponašanja i strasti prema poslu koji obavljaju (Kahn, 1990; Saks, 2006; Shantz *et al*, 2013; Spiegelaere, Van Gyes & Van Hootegeem, 2016; Zhang, Jex, Peng & Wang, 2017), ima i suprotstavljenih stavova koji ističu „mračnu stranu“ autonomije, smatrajući da ona podstiče, ili bar omogućava neetičko ponašanje pojedinaca kojima su delegirana diskreciona prava odlučivanja o poslu (Lu, Brockner, Vardi & Weitz, 2017). Međutim, čak i ova istraživanja ističu da je efekat autonomije na neetičko ponašanje slabiji kod pojedinaca koji su ocenili autonomiju kao poslovni resurs koji im je lično veoma važan. Kako digitalno radno okruženje pruža pojedincima visok stepen autonomije i vrlo malu kontrolu od strane nadređenih, naročito kada je u pitanju rad na daljinu, bitno je proceniti da li se, u ovakvoj sredini, javljaju pozitivne ili negativne posledice. Procenom efekata na angažovanost, može se oceniti da li autonomija ima pozitivne implikacije.

Kod zaposlenih, koji se bave informaciono-komunikacionim tehnologijama (IKT), pokazano je da autonomija povećava satisfakciju poslom, jer im pruža mogućnost da maksimalno iskoriste svoje kapacitete (Madanagopal & Thenmozhi, 2015). Reč je, najčešće, o složenim poslovima, koji zahtevaju upotrebu raznovrsnih veština i stalno prikupljanje i obradu novih podataka, s obzirom da tehnologija napreduje, a konkurencija je izražena. Poslovi su zasnovani na maksimalnoj upotrebi znanja, a sloboda u pogledu prilagođavanja, načina rada, to olakšava. Zbog toga, može se očekivati da pored većeg zadovoljstva poslom, zaposleni mogu da ostvare i bolje rezultate.

Poslove u oblasti IKT, uglavnom, obavljaju stručnjaci koji su usko specijalizovani, tako da se ne očekuje da stroga kontrola, ili bilo koji mehanizam zasnovan na izdavanju naloga i komuniciranju s-vrha-ka-dnu, može dati dobre rezultate, jer pojedinci koji obavljaju posao, zapravo, najbolje poznaju potrebe i zahteve posla, kao i načine da se na njih odgovori.

Shodno navedenom, razvijena je osnovna istraživačka hipoteza:

H1: Autonomija pozitivno utiče na nivo angažovanosti zaposlenih u digitalnom okruženju.

Moderatorski efekat rada na daljinu

Pod radom na daljinu podrazumeva se situacija u kojoj uobičajeni kancelarijski prostor nije centralna lokacija sa koje zaposleni obavlja radne zadatke. Pojedinaac, dakle, radi na određenoj udaljenoj lokaciji, a održava komunikaciju sa ostatkom organizacije putem informaciono-komunikacione tehnologije (Bailey & Kurland, 2002; Pattnaik & Jena, 2020). Tokom 2020, pandemija COVID-19 je ubrzala digitalnu transformaciju mnogih organizacija, koja, između ostalog, uključuje i veće oslanjanje na rad na daljinu. Ovakva promena je mnoge radnike zatekla nespremnim da se brzo prilagode novim okolnostima i da nastave da ostvaruju visoke performanse, uz istovremeno očuvanje lične dobrobiti. U tom smislu, istraživanje angažovanosti, kao stanja koje reflektuje dobar osećaj na poslu i visoku produktivnost, kao i faktora koji pospešuju razvoj ovakvog stanja, dobija sve veći značaj.

Na prvi pogled, reklo bi se da u uslovima rada na daljinu prirodno postoji veća sloboda na radnom mestu, u smislu veće fleksibilnosti u organizovanju svojih dnevnih zadataka. S jedne strane, to jeste tačno. Međutim, s druge strane, javljaju se određene smetnje kao što je teškoća održavanja balansa između posla i života, naročito ukoliko zaposleni biraju svoj porodični dom kao mesto za rad. Rad od kuće zahteva balansiranje između kućnih i porodičnih obaveza, kao i radnih obaveza, čime je autonomija dovedena u pitanje. Istraživanja su potvrdila da dužnosti

prema domaćinstvu i porodici ograničavaju slobodu prilikom rada od kuće (Manzo & Minello, 2020). S druge strane, sloboda izbora u pogledu lokacije, vremena i načina rada, u uslovima rada na daljinu, pomaže zaposlenima da uspostave balans između posla i života i motiviše ih (Kossek, Lautsch & Eaton, 2009).

Samim tim, bitno je naglasiti da rad na daljinu ne podrazumeva uvek i visok stepen autonomije, te da je autonomija važan preduslov angažovanosti prilikom rada na daljinu, možda čak i važniji nego u situaciji kada zaposleni rade u kancelariji. Ukoliko zaposleni rade u kancelariji, postoji mogućnost oslanjanja i na druge moguće prediktore angažovanosti, kao što je niz faktora iz kategorije socijalnih karakteristika posla - dobri odnosi sa kolegama, percepcija pripadnosti grupi/timu, povratne informacije od nadređenog i drugih ljudi (May, Gilson & Harter, 2004; Bakker & Demerouti, 2007; Bakker & Bal, 2010). S druge strane, u uslovima rada na daljinu, angažovanost će zavistiti od manjeg broja mogućih podsticajnih faktora, među kojima se autonomija može izdvojiti kao potencijalno najznačajniji, imajući u vidu njenu dominantnu ulogu i u regularnim uslovima (Christian *et al*, 2011).

Prema tome, razvijena je druga istraživačka hipoteza:

H2: Uticaj autonomije na angažovanost zaposlenih u digitalnom okruženju je jači ukoliko zaposleni rade na daljinu.

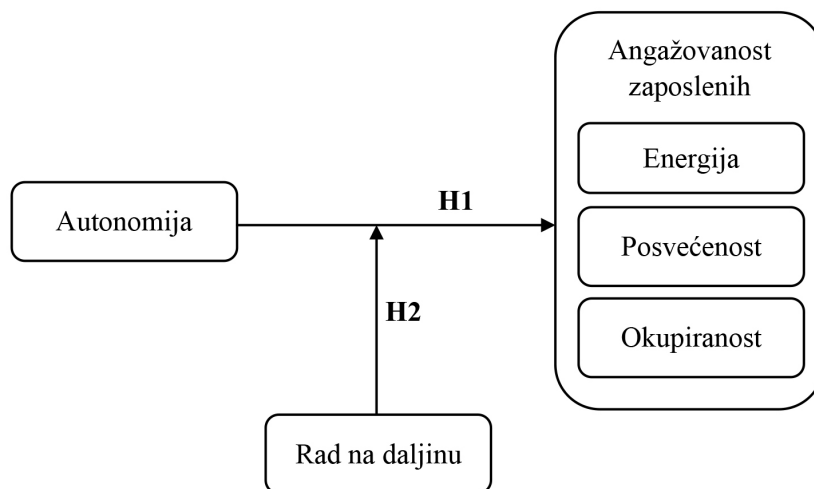
Istraživački model

Shodno formulisanim hipotezama, formiran je konceptualni istraživački model koji prikazuje odnose između istraživačkih varijabli (Slika 1).

METODOLOŠKI OKVIR EMPIRIJSKOG ISTRAŽIVANJA

Prikupljanje i obrada podataka

Kako bi se postavljene hipoteze testirale, sprovedeno je empirijsko istraživanje metodom ankete. Podaci



Slika 1 Istraživački model

Izvor: Autor

su prikupljeni, na osnovu uzorka od 158 ispitanika zaposlenih u IT sektoru, na teritoriji Republike Srbije (RS), u periodu kraj 2020 - početak 2021. Kao instrument za prikupljanje podataka, korišćen je upitnik, baziran na postojećim, dobro utemeljenim mernim skalama, koje su prilagođene za potrebe istraživanja. Autonomija je merena pomoću tri stavke - autonomija raspoređivanja poslova, autonomija odlučivanja i autonomija koja se odnosi na izbor metoda rada. Pitanja su preuzeta iz sveobuhvatnog upitnika o dizajnu posla, koji su razvili F. P. Morgeson i S. E. Humphrey (2006). Za merenje angažovanosti zaposlenih, korišćen je upitnik UWES-9, koji se najčešće koristi u istraživanjima ovog tipa i meri tri dimenzije angažovanosti - energiju, posvećenost i okupiranost (Schaufeli & Bakker, 2003). Skale su sedmostepene.

Obrada podataka izvršena je korišćenjem odgovarajućih statističkih metoda i tehnika u *Social Science Statistical Software*-u (SPSS) 25.0 i AMOS 24.0. Struktura uzorka je analizirana pomoću deskriptivnih statističkih mera. Za testiranje pouzdanosti mernih skala, primenjen je Cronbach-ov koeficijent alfa, a zatim je sprovedena i konfirmatorna faktorska analiza. Hipoteza je testirana primenom modeliranja strukturalnih jednačina (*Structural Equation Modelling - SEM*).

Uzorak

Uzorak je analiziran prema demografskim karakteristikama ispitanika, a rezultati su prikazani u Tabeli 1. Može se videti da dominiraju ispitanici muškog pola (55,7%), u odnosu na ispitanike ženskog pola (42,4%) i one koji su nisu želeli da odgovore (1,48%). Najveći broj ispitanika ima između 20 i 30 godina (44,9%), a najmanje je ispitanika u kategoriji 61-70 godina (0,6%). Prema obrazovnoj strukturi, prevlađuju ispitanici sa završenim fakultetom (47,5%), dok je najmanje doktora nauka (0,6%).

REZULTATI I DISKUSIJA

Pouzdanost mernih skala i pristrasnost metoda

Pouzdanost mernih skala korišćenih u upitniku testirana je izračunavanjem Cronbach-ovog koeficijenta alfa (Tabela 2). Sve skale imaju koeficijent iznad preporučene granične vrednosti od 0,7 (Nunnally, 1978), tako da mogu biti ocenjene kao visoko pouzdane za korišćenje u daljem istraživanju.

Tabela 1 Demografska struktura uzorka

Pol	Broj	Procenat
Muški	88	55,7 %
Ženski	67	42,4 %
Ne želim da se izjasnim / Nedostaju podaci	3	1,9 %
Godine starosti	Broj	Procenat
20-30	71	44,9 %
31-40	68	43,0 %
41-50	12	7,6 %
51-60	2	1,3 %
61-70	1	0,6 %
Nedostaju podaci	4	2,5 %
Nivo obrazovanja	Broj	Procenat
Srednja škola	29	18,4 %
Viša škola	16	10,1 %
Fakultet	75	47,5 %
Master/Magistar	37	23,4 %
Doktor nauka	1	0,6 %
Nedostaju podaci	0	/
Ukupno	158	100%

Izvor: Autor

Tabela 2 Pouzdanost mernih skala

Skala	Koeficijent alfa	Broj stavki
Autonomija	0,760	3
Angažovanost - cela skala	0,916	9
Energija	0,913	3
Posvećenost	0,826	3
Okupiranost (apsorpcija)	0,706	3

Izvor: Autor

Pristrasnost metoda (*common method bias*) testirana je primenom Harman-ovog testa (*Harman's single factor test*). Rezultati testa su pokazali da je ukupna varijansa za jedan faktor manja od 50%, tačnije, iznosi

48,51%, što govori o tome da pristrasnost ne utiče na podatke.

Modeliranje strukturalnih jednačina

Kako bi se procenila validnost modela, primenjena je konfirmatorna faktorska analiza. Nakon eliminisanja stavki sa faktorskim opterećenjima ispod 0,6 (dve od tri stavke iz podskale Okupiranost), eliminisana je cela podskala Okupiranost jer jedna preostala stavka nije dovoljan uslov za sprovođenje konfirmatorne faktorske analize. Zatim je izračunata vrednost pokazatelja χ^2/df , koja iznosi 2,067, što je manje od preporučene maksimalne vrednosti od 3 (Carmines & McIver, 1981). Vrednosti pokazatelja CFI = 0,973, IFI = 0,973, TLI = 0,957 i GFI = 0,936 više su od preporučene minimalne vrednosti od 0,90 (Byrne, 1998). Vrednost koeficijenta RMSEA iznosi 0,082, što je ispod preporučene gornje granice od 0,1. Takođe, model pokazuje zadovoljavajuće vrednosti kompozitne pouzdanosti (CR), iznad 0,6 (Bagozzi & Yi, 1988) i prosečne izdvojene varijanse (AVE), koja je iznad 0,5 (Fornell & Larcker, 1981). Tabela 3 pokazuje rezultate konfirmatorne faktorske analize.

S obzirom na to da je model validan, može se pristupiti testiranju hipoteza primenom modela strukturalnih jednačina. Rezultati (Tabela 4) pokazuju da autonomija ima statistički značajan, pozitivan uticaj na dve, od tri dimenzije angažovanosti zaposlenih.

Zatim je testirana druga istraživačka hipoteza. Ispitano je da li rad na daljinu ima moderatorski uticaj na vezu između autonomije i angažovanosti (energije i posvećenosti) zaposlenih. U uzorku su identifikovane dve grupe zaposlenih - oni koji su se izjasnili da nikada ne rade na daljinu ($n_1 = 42$) i oni koji bar jednim radnim danom obavljaju poslove van radnog mesta ($n_2 = 116$). Kako bi se utvrdile statistički značajne razlike između ove dve grupe, izvršeno je poređenje u pogledu uticaja autonomije na stepen njihove angažovanosti. Rezultati testa invarijantnosti (Tabela 5) je pokazao da postoje statistički značajne razlike između posmatranih grupa ($p = 0,078 < 0,1$).

Tabela 3 Rezultati konfirmativne faktorske analize (CFA)

Konstatacije	Faktorska opterećenja	AVE	CR
Autonomija		0,516	0,761
Posao mi dozvoljava da sam(a) donosim odluke o načinu raspoređivanja aktivnosti i vremena.	0,66		
Posao mi omogućava da donosim mnoge odluke samostalno.	0,76		
Posao mi omogućava da samostalno odlučim koje ću metode primenjivati u radu.	0,73		
Energija - 1. dimenzija angažovanosti		0,793	0,920
Na poslu sam pun/a energije.	0,91		
Dok obavljam svoj posao, osećam se snažno i poletno.	0,91		
Kad ujutru ustanem, jedva čekam da radim svoj posao.	0,86		
Posvećenost - 2. dimenzija angažovanosti		0,608	0,820
Moj posao me inspiriše.	0,88		
Osećam entuzijazam u vezi sa svojim poslom.	0,81		
Ponosim se poslom koji radim.	0,63		

Izvor: Autor

Tabela 4 Testiranje direktnog uticaja autonomije na angažovanost zaposlenih

Relacija	Standardizovana procena (β)	Procena (B)	Statistička značajnost (p)
Autonomija → Energija (1. dim. Angažovanosti)	0,887	1,368	0,000***
Autonomija → Posvećenost (2. dim. angažovanosti)	0,890	1,085	0,000***

*** $p < 0,001$

Izvor: Autor

Tabela 5 Testiranje invarijantnosti u modelima

	χ^2	df
Neograničen model	171,913	48
Ograničen model	177,015	50
Razlika	5,102	2
p-vrednost	0,078*	

* $p < 0,1$

Izvor: Autor

Narednim ispitivanjem, sproveden je test kojim se porede koeficijenti regresije, kako bi se ispitalo da li postoje statistički značajne razlike u uticaju autonomije na angažovanost između grupe ispitanika koji rade na daljinu i onih koji ne rade na daljinu. Rezultati su prikazani u Tabeli 6.

Analizom moderatorskog uticaja rada na daljinu, identifikovana je statistički značajna razlika u pogledu uticaja autonomije na energiju, kao prvu dimenzije

angažovanosti zaposlenih. Tačnije, utvrđeno je da je pozitivan uticaj autonomije na energičnost zaposlenih jači u slučaju kada zaposleni rade na daljinu ($\beta = 1,002$), nego kada ne rade na daljinu ($\beta = 0,758$). Kada je reč o uticaju autonomije na posvećenost, nije identifikovana statistički značajna razlika između grupe ispitanika koji su se izjasnili da primenjuju rad na daljinu i onih koji ne rade na daljinu.

Diskusija rezultata istraživanja

Rezultati istraživanja su pokazali da autonomija ima pozitivan uticaj na angažovanost zaposlenih u digitalnom okruženju, odnosno, na njene dve dimenzije: energiju i posvećenost. Uticaj na dimenziju okupiranosti poslom nije testiran, jer se prilikom konfirmatorne faktorske analize ispostavilo da ova subskala ne ispunjava uslove za dalju analizu. Shodno tome, hipoteza 1 je delimično potvrđena. Ovakav rezultat je u skladu sa prethodnim istraživanjima (Saks, 2006; Christian *et al.*, 2011; Shantz *et al.*, 2013) i ukazuje na to da se sa povećanjem autonomije može očekivati i porast angažovanosti zaposlenih. Za razliku od prethodnih istraživanja, koja su sprovedena u raznovrsnim delatnostima, saznanja do kojih se dolazi ovim istraživanjem usko su vezana za delatnost Informisanja i komunikacija, i to pretežno firme koje se bave informaciono-komunikacionim tehnologijama. Ovo su delatnosti u kojima su inovativnost, brzo reagovanje na izazove i proaktivnost zaposlenih, kao i cele organizacije, ključni faktori uspeha, a autonomija upravo olakšava postizanje ovih performansi.

Može se zaključiti da je rad na daljinu moderator uticaja autonomije na energiju zaposlenih, kao

jednu dimenziju angažovanosti, tako da je hipoteza 2 delimično potvrđena. To znači da je autonomija još značajniji faktor angažovanosti zaposlenih u uslovima rada na daljinu, nego prilikom rada u kancelariji, bar što se tiče energije kao jedne važne komponente koncepta angažovanosti. Na ovaj način, još je jednom potvrđena relevantna uloga autonomije u savremenim organizacijama, koja je istaknuta i u prethodnim istraživanjima (Christian *et al.*, 2011), ali se iskorak u odnosu na prethodna istraživanja odnosi na kontekst rada na daljinu. Za osobe koje rade na daljinu, sloboda izbora tačnog mesta na kojem će raditi, načina i vremena za rad, pokazali se se još bitnijom nego u regularnim uslovima, imajući u vidu specifičnosti i ograničavajuće faktore rada na daljinu, kao što su porodične obaveze, ograničenost resursa, izolovanost iz kolektiva, redukcija međuljudskih interakcija, a ponekad i socijalne podrške.

ZAKLJUČAK

Rad pruža uvide u međusobne odnose autonomije, kao jedne od najznačajnijih strukturalnih karakteristika posla, angažovanosti zaposlenih i rada na daljinu, u specifičnim uslovima kakvo je savremeno, digitalno okruženje, posebno svojstveno preduzećima koje se bave informaciono-komunikacionim tehnologijama, ali i mnogim drugim koja prolaze kroz proces digitalne transformacije u cilju prilagođavanja savremenom ekonomskom poretku i tzv. industriji 4.0.

Prethodna istraživanja su pokazala da organizacioni dizajn, koji može uspešno da odgovori na zahteve digitalne transformacije, treba da bude baziran

Tabela 6 Moderatorski uticaj rada na daljinu

Uticaj	β - rad iz kancelarije	β - rad na daljinu	$\Delta\beta$	p-vrednost razlike
Autonomija → Energija (1. dim. Angažovanosti)	0,758***	1,002***	-0,244	0,042**
Autonomija → Posvećenost (2. dim. angažovanosti)	0,958***	0,906***	0,052	0,414

*** $p < 0,001$ ** $p < 0,05$

na visokoj agilnosti (Teece, Peteraf & Leih, 2016). Kreiranje agilne organizacije mora biti podržano redizajnom poslova, koji će biti oblikovani tako da omogućavaju brzo i kvalitetno odlučivanje, kao i visoku motivaciju i performanse zaposlenih. Suočeni sa visokim i promenljivim zahtevima, ljudi mogu razviti stres i nezadovoljstvo, ukoliko poslovi nisu adekvatno dizajnirani. Suprotno tome, može se razviti stanje izražene energičnosti i visokih performansi, kao što je angažovanost, a među osnovnim pokretačima ovakvog stanja je pravilno dizajniran posao (Tims & Bakker, 2014).

Istraživanjem, koje je sprovedeno u ovom radu, potvrđeno je da autonomija na radnom mestu predstavlja bitan faktor angažovanosti zaposlenih. Diskreciona prava zaposlenih da odlučuju o načinu, mestu i vremenu obavljanja zadataka, povećavaju i njihovu percepciju svrsishodnosti posla koji rade. Pored toga, ukoliko pojedinac veruje da ima kontrolu nad poslom i ishodima svojih aktivnosti, povećava se i njegova odgovornost za ostvarene rezultate, kao i motivacija. Međutim, bitno je naglasiti da autonomija treba biti zasnovana na znanju i ekspertizi (Erić Nielsen, 2020), jer jedino pod tim uslovom može dati pozitivne efekte, ne samo u kontekstu angažovanosti, nego i razvoja preduzetničkog ponašanja i sveukupnih performansi organizacije.

Rezultati upućuju i na zaključak da zaposlenima može biti teško da odgovore na rigidno zadate poslovne zahteve u pogledu vremena i načina rada u uslovima rada na daljinu, kada moraju balansirati između vremena posvećenog poslu i životu, kao i onda kada nemaju sve raspoložive resurse koji su prisutni u kancelariji (oprema, socijalni kontakti itd.). Takođe, može se pretpostaviti da je značaj autonomije posebno izražen u ovim uslovima zbog toga što su dejstva drugih, alternativnih pokretača angažovanosti, kao što su socijalni kontakti, podrška i povratne informacije, ograničeni.

Istraživanje ima naučni doprinos u oblastima organizacionog dizajna i organizacionog ponašanja. Istaknut je značaj autonomije, kao bitne karakteristike „radnog mesta budućnosti“ u razvoju angažovanosti - stanja visokih performansi koje vodi većoj

proaktivnosti i inovativnosti pojedinaca. Prethodne studije su, uglavnom, rađene u drugim delatnostima, tako da su, sprovođenjem istraživanja u IT sektoru, produbljena postojeća saznanja o autonomiji kao faktoru angažovanosti. U metodološkom smislu, obezbeđen je dublji uvid u efekte autonomije na angažovanost, s obzirom da su razmatrani pojedinačni efekti na tri dimenzije angažovanosti, pri čemu je dokazan pozitivan uticaj na energiju i posvećenost. Takođe, istraživanjem je utvrđena moderatorska uloga rada na daljinu u odnosu između autonomije i angažovanosti, čime su postojeća znanja proširena i učvršćen je temelj za izvođenje novih teorijskih zaključaka o uzročno-posledničnim vezama između dizajna posla i angažovanosti zaposlenih u digitalnom okruženju.

Praktične implikacije istraživanja odnose se, prevashodno, na pružanje uvida menadžmentu savremenih organizacija u značaj angažovanosti, kao ciljnog stanja koje treba postići kod zaposlenih u savremenim uslovima, kako izraženi poslovni zahtevi ne bi doveli do stresa i izgaranja, nego do povećanja energije, posvećenosti, zainteresovanosti za posao, a posledično i radnog učinka. Takođe, rad ukazuje na jednu od karakteristika posla koja se smatra najznačajnijom za postizanje angažovanosti, a to je pružanje slobode i nezavisnosti zaposlenima u pogledu izbora načina, mesta i vremena za rad. Menadžeri koji nastoje da uspešno sprovedu svoje preduzeće kroz proces digitalne transformacije, treba da razmotre mogućnost povećanja autonomije zaposlenih, kad god to dozvoljavaju priroda radnog mesta, znanje i sposobnosti zaposlenih, kao i drugi situacioni faktori.

Rad ima i određena ograničenja. Pre svega, istraživanje je sprovedeno samo u Republici Srbiji i samo u IT sektoru, što, donekle, otežava generalizaciju zaključaka. Veličina uzorka uvek predstavlja ograničenje u istraživanjima ovog tipa, tako da postoji mogućnost njegovog proširenja u cilju povećanja pouzdanosti dobijenih rezultata. Takođe, treba istaći i da anketa kao metod prikupljanja podataka ima svoje nedostatke, među kojima se može izdvojiti potencijalna subjektivnost ispitanika prilikom davanja odgovora. Ipak, ona je manja u odnosu na

neke druge metode (intervju), obzirom da je anketa sprovedena anonimno.

Saznanja do kojih se došlo u radu otvaraju i neka nova pitanja, pružajući smernice za buduća istraživanja. S obzirom da su utvrđeni relativno čvrsti dokazi o pozitivnim efektima autonomije na angažovanost, postavlja se pitanje da li postoje izuzetne situacije u kojima autonomija neće dati pozitivne efekte i koji su to slučajevi. Dakle, potrebno je analizirati ovu vezu u raznovrsnim okolnostima, kako bi se ispitale potencijalne situacione varijable koje na nju mogu uticati. Takođe, moguće je uključiti i dodatne indikatore autonomije kao varijable, u cilju obuhvatanja i drugih njenih aspekata. Pored toga, identifikovanjem moderatorske uloge rada na daljinu, u odnosu između autonomije i angažovanosti zaposlenih, otvoren je niz pitanja vezanih za razumevanje specifičnog konteksta rada na daljinu i njegovih posrednih efekata i na druge veze između karakteristika posla i individualnih ishoda. Buduća istraživanja bi trebalo da budu usmerena ka ispitivanju implikacija drugih strukturalnih, kognitivnih i socijalnih karakteristika posla za zaposlene.

REFERENCE

- Anderson, D., & Kelliher, C. (2009). Flexible working and engagement: The importance of choice. *Strategic HR Review*, 8(2), 13-18. doi.org/10.1108/14754390910937530
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94. doi.org/10.1007/BF02723327
- Bailey, D. E., & Kurland, N. B. (2002). A review of telework research: Findings, new directions, and lessons for the study of modern work. *Journal of Organizational Behavior*, 23(4), 383-400. doi.org/10.1002/job.144
- Bakker, A. B., Demerouti, E., Taris, T. W., Schaufeli, W. B., & Schreurs, P. J. G. (2003). A multigroup analysis of the job demands-resources model in four home care organizations. *International Journal of Stress Management*, 10(1), 16-38. doi.org/10.1037/1072-5245.10.1.16
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328. doi.org/10.1108/02683940710733115
- Bakker, A. B., & Bal, P. M. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, 83(1), 189-206. doi.org/10.1348/096317909X402596
- Bakker, A. B., Tims, M., & Derks, D. (2012). Proactive personality and job performance: The role of job crafting and work engagement. *Human Relations*, 65(10), 1359-1378. doi:10.1177/0018726712453471
- Byrne, B. M. (1998). *Structural Equation Modeling with LISREL, PRELIS, and SIMPLIS: Basic Concepts, Applications, and Programming*, New Jersey, NJ: Lawrence Erlbaum, Hillsdale.
- Carmines, E., & McIver, J. (1981). Analysing models with unobserved variables: Analysis of covariance structures. In G. Bohmstedt, & E. Borgatta (Eds.). *Social Measurement: Current Issues* (pp. 56-77). Beverly Hills, CA: Sage.
- Chang, J., Huang, D. W., & Choi, J. (2012). Is task autonomy beneficial for creativity? Prior task experience and self-control as boundary conditions. *Social Behavior and Personality*, 40(5), 705-724. dx.doi.org/10.2224/sbp.2012.40.5.705
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64(1), 89-36. doi.org/10.1111/j.1744-6570.2010.01203.x
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95(5), 834-848. doi.org/10.1037/a0019364
- Crawford, E. R., Rich, B. L., Buckman, B., & Bergeron, J. (2014). Antecedents and drivers of employee engagement. In C. Truss, R. Delbridge, K. Alfes, A. Shantz, & E. Soane (Eds.). *Employee engagement in theory and practice* (pp. 57-81). London & New York, UK & NY: Routledge, Taylor & Francis Group.
- Crocitto, M., & Youssef, M. (2003). The human side of organizational agility. *Industrial Management & Data Systems*, 103(6), 388-397. doi.org/10.1108/02635570310479963

- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*(3), 499-512. doi.org/10.1037/0021-9010.86.3.499
- Eric Nielsen, J. (2020). *Korporativno preduzetništvo*. Kragujevac, RS: Ekonomski fakultet Univerziteta u Kragujevcu.
- Eric Nielsen, J., Babić, V., Stojanović-Aleksić, V., & Nikolić, J. (2019). Driving forces of employees' entrepreneurial intentions - Leadership style and organizational structure. *Management: Journal Of Sustainable Business And Management Solutions In Emerging Economies, 24*(3), 59-71. doi:10.7595/10.7595/management.fon.2019.0020
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-80. doi.org/10.2307/3151312
- Golden, T. D., & Gajendran, R. S. (2019). Unpacking the role of a telecommuter's job in their performance: Examining job complexity, problem solving, interdependence and social support. *Journal of Business and Psychology, 34*(1), 55-69. doi.org/10.1007/s10869-018-9530-4
- Halbesleben, J. R. B. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources, and consequences. In A. B. Bakker, & M. P. Leiter (Eds.). *Work engagement: A handbook of essential theory and research* (pp. 102-117). New York, NY: Psychology Press.
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology, 92*(5), 1332-1356. doi.org/10.1037/0021-9010.92.5.1332
- Johns, T. (2012). Employee Engagement. In: S. Taylor, & C. Woodhams (Eds.). *Managing People and Organisations* (pp. 83-110). London, UK: Chartered Institute of Personnel and Development.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*(4), 692-724. doi.org/10.2307/256287
- Kossek, E. E., Lautsch, B. A., & Eaton, S. C. (2009). "Good teleworking": Under what conditions does teleworking enhance employees' well-being? In Y. Amichai-Hamburger (Ed.). *Technology and Psychological Well-being* (pp. 148-173). Cambridge, UK: Cambridge University Press.
- Kwon, K., & Kim, T. (2020). An integrative literature review of employee engagement and innovative behavior: Revisiting the JD-R model. *Human Resource Management Review, 30*(2), 1-18. doi.org/10.1016/j.hrmr.2019.100704
- Liu, D., Chen, X.-P., & Yao, X. (2011). From autonomy to creativity: A multilevel investigation of the mediating role of harmonious passion. *Journal of Applied Psychology, 96*(2), 294-309. doi.org/10.1037/a0021294
- Lu, J. G., Brockner, J., Vardi, Y., & Weitz, E. (2017). The dark side of experiencing job autonomy: Unethical behavior. *Journal of Experimental Social Psychology, 73*, 222-234. doi.org/10.1016/j.jesp.2017.05.007
- Macey, W. H., Schneider, B., Barbera, K. M., & Young, S. A. (2009). *Talent Management Essentials. Employee Engagement: Tools for Analysis, Practice, and Competitive Advantage*. Hoboken, NJ: Wiley-Blackwell.
- Madanagopal, D., & Thenmozhi, S. (2015). Relationship between job autonomy and job satisfaction among male employees in the ITes sector from Chennai city. *Annamalai International Journal of Business Studies & Research, 73-78*.
- Manzo, L. K. C., & Minello, A. (2020). Mothers, childcare duties, and remote working under COVID-19 lockdown in Italy: Cultivating communities of care. *Dialogues in Human Geography, 10*(2), 120-123. doi.org/10.1177/2043820620934268
- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology, 77*(1), 11-37. doi.org/10.1348/096317904322915892
- McClelland, G. P., Leach, D. J., Clegg, C. W., & McGowan, I. (2014). Collaborative crafting in call centre teams. *Journal of Occupational and Organizational Psychology, 87*(3), 464-486. doi:10.1111/joop.12058
- Morgeson, F. P., & Humphrey, S. E. (2006). The work design questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology, 91*(6), 1321-1339. doi.org/10.1037/0021-9010.91.6.1321
- Nikolić, J. (2018). Biases in the decision-making process and possibilities of overcoming them. *Economic Horizons, 20*(1), 43-57. doi:10.5937/ekonhor1801045N
- Nunnally, J. C. (1978). *Psychometric Theory*. 2nd Edition, New York, NY: McGraw-Hill.

- Pattnaik, L., & Jena, L. K. (2020). Mindfulness, remote engagement and employee morale: Conceptual analysis to address the "new normal". *International Journal of Organizational Analysis*, 29(4), 873-890. [oi.org/10.1108/IJOA-06-2020-2267](https://doi.org/10.1108/IJOA-06-2020-2267)
- Radošević, V., Jelić, D., Matanović, J. i Popov, B. (2018). Zahtevi posla i resursi na radu kao prediktori izgaranja na radu i radne angažovanosti: Glavni i interaktivni efekti. *Primenjena psihologija*, 11(1), 105-125. [doi:10.19090/pp.2018.1.105-125](https://doi.org/10.19090/pp.2018.1.105-125)
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. doi.org/10.1037/0003-066X.55.1.68
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600-619. doi.org/10.1108/02683940610690169
- Saks, A. M., & Gruman, J. A. (2014). What do we really know about employee engagement? *Human Resource Development Quarterly*, 25(2), 155-182. doi.org/10.1002/hrdq.21187
- Salanova, M., Agut, S., & Peiró, J. M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediation of service climate. *Journal of Applied Psychology*, 90(6), 1217-1227. doi.org/10.1037/0021-9010.90.6.1217
- Savovic, S., Zlatanovic, D., & Nikolic, J. (2021). Technology acquisitions as a supporting tool for improving companies' innovative potential. *Economic Horizons*, 23(1), 3-17. [doi:10.5937/ekonhor2101003S](https://doi.org/10.5937/ekonhor2101003S)
- Schaufeli, W. B., & Bakker, A. B. (2003). *Test manual for the Utrecht Work Engagement Scale*. Unpublished manuscript, Utrecht University, The Netherlands. Retrieved May 15, 2021, from <http://www.schaufeli.com>
- Schaufeli, W. B., & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing clarity to the concept. In A. B. Bakker, & M. P. Leiter (Eds.). *Work Engagement: A Handbook of Essential Theory and Research* (pp. 10-24). New York, NY: Hove and New York, Psychology Press, Taylor & Francis Group.
- Shantz, A., Alfes, K., Truss, C., & Soane, E. (2013). The role of employee engagement in the relationship between job design and task performance, citizenship and deviant behaviours. *The International Journal of Human Resource Management*, 24(13), 2608-2627. doi.org/10.1080/09585192.2012.744334
- Shuck, B., Ghosh, R., Zigarmi, D., & Nimon, K. (2012). The jingle jangle of employee engagement: Further exploration of the emerging construct and implications for workplace learning and performance. *Human Resource Development Review*, 12(1), 11-35. [doi:10.1177/1534484312463921](https://doi.org/10.1177/1534484312463921)
- Simić, M., Slavković, M., & Ognjanović, J. (2020). Information literacy competencies in digital age: Evidence from small-and-medium-sized enterprises. In V. Domanović, & D. Zlatanović (Eds.). *Proceedings of the 6th International Scientific Conference on Contemporary Issues in Economics, Business and Management (EBM 2020)* (pp. 105-114). Kragujevac, RS: Faculty of Economics University of Kragujevac, The Republic of Serbia.
- Sinha, K. K., & Van de Ven, A. H. (2005). Designing work within and between organizations. *Organization Science*, 16(4), 389-408. doi.org/10.1287/orsc.1050.0130
- Spiegelaere, S., Van Gyes, G., & Van Hootegem, G. (2016). Not all autonomy is the same. Different dimensions of job autonomy and their relation to work engagement & Innovative work behavior. *Human Factors and Ergonomics in Manufacturing*, 26(4), 515-527. doi.org/10.1002/hfm.20666
- Stojanovic-Aleksic, V. (2016). Followers in the organizational leadership process: From attribution to shared leadership. *Economic Horizons*, 18(2), 135-148. [doi:10.5937/ekonhor1602139S](https://doi.org/10.5937/ekonhor1602139S)
- Tallon, P. P., & Pinsonneault, A. (2011). Competing perspectives on the link between strategic information technology alignment and organizational agility: Insights from a mediation model. *MIS Quarterly*, 35(2), 463-486. doi.org/10.2307/23044052
- Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic capabilities and organizational agility: Risk, uncertainty, and strategy in the innovation economy. *California Management Review*, 58(4), 13-35. doi.org/10.1525/cmr.2016.58.4.13
- Thomson, P. (2008). The business benefits of flexible working. *Strategic HR Review*, 7(2), 17-22. [doi:10.1108/14754390810853129](https://doi.org/10.1108/14754390810853129)
- Tims, M., & Bakker, A. B. (2014). Job design and employee engagement. In C. Truss, K. Alfes, R. Delbridge, A. Shantz, & A. Soane (Eds.). *Employee Engagement in Theory and Practice* (pp. 131-148) London & New York, UK & NY: Routledge, Taylor & Francis Group

- Wollard, K. K., & Shuck, B. (2011). Antecedents to employee engagement: A structured review of the literature. *Advances in Developing Human Resources*, 13(4), 429-446. doi.org/10.1177/1523422311431220
- Wrzesniewski, A., & Dutton, J. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26(2), 179-201. doi.org/10.5465/amr.2001.4378011
- Youssef-Morgan, C. M., & Bockorny, K. M. (2014). Engagement in the context of positive psychology. In C. Truss, R. Delbridge, K. Alfes, A. Shantz, & E. Soane (Eds.). *Employee Engagement in Theory and Practice* (pp. 36-56). London & New York, UK & NY: Routledge, Taylor & Francis Group.
- Zhang, W., Jex, S. M., Peng, Y., & Wang, D. (2017). Exploring the effects of job autonomy on engagement and creativity: The moderating role of performance pressure and learning goal orientation. *Journal of Business and Psychology*, 32(3), 235-251. doi.org/10.1007/s10869-016-9453-x

Primljeno 14. jula 2021,
nakon revizije,
prihvaćeno za publikovanje 25. novembra 2021.
Elektronska verzija objavljena 6. decembra 2021.

Aleksandra Bošković je asistent na Ekonomskom fakultetu Univerziteta u Kragujevcu. Trenutno je doktorand sa prijavljenim doktoratom na istom fakultetu. Nastavu drži na nastavnim predmetima: Organizacija preduzeća, Društvena odgovornost preduzeća i Liderstvo. Oblasti njenog naučno-istraživačkog interesovanja su: organizacioni dizajn, organizaciono ponašanje, angažovanost zaposlenih, društvena odgovornost preduzeća.

EMPLOYEE AUTONOMY AND ENGAGEMENT IN THE DIGITAL AGE: THE MODERATING ROLE OF REMOTE WORKING

Aleksandra Boskovic

Faculty of Economics, University of Kragujevac, Kragujevac, the Republic of Serbia

In the digitalization era, traditional organizational success factors have been called into question, so it is necessary to reconsider the established work patterns and find new ways to create sustainable value. Given the fact that, as bearers of knowledge, people are the key drivers of value, it is important to explore possible ways to improve their potential. The research study carried out in this paper is aimed showing that autonomy contributes to the development of employee engagement in the digital environment, especially so in remote working conditions. In that sense, the concept of employee engagement was explained, as a state of high vigor, dedication and absorption. Possible ways to improve engagement through increasing autonomy are pointed out as well. The empirical research has confirmed that autonomy has a positive effect on vigor and dedication as the engagement dimensions. The impact autonomy exerts on vigor is stronger in the employees working remotely in comparison with those who do not work remotely.

Keywords: autonomy, job design, employee engagement, remote working, digital environment, organizational design

JEL Classification: M20, M12, J28

Original scientific paper

UDC: 336.1

doi:10.5937/ekonhor2103259R

PEER-TO-PEER LENDING, FINANCIAL BOOTSTRAPPING AND GOVERNMENT SUPPORT: THE ROLE OF INNOVATION MEDIATION ON MSME PERFORMANCE

Maria Rio Rita*, Yeterina Widi Nugrahanti and Ari Budi Kristanto

*Faculty of Economics and Business, Satya Wacana Christian University, Salatiga, Central Java,
Indonesia*

This study aims to examine whether Peer-to-Peer (P2P) lending, financial bootstrapping and government support affect the performance of Micro, Small, and Medium-sized Enterprises (MSMEs) by adding a mediating variable in the form of innovation. Innovation mediation is expected to be able to optimize the influence of government funding and incentives towards improving business performance. This study used an SEM-PLS analysis technique. The study samples were the MSMEs located in the city of Salatiga - Central Java, Indonesia. The results showed that P2P lending and financial bootstrapping had a positive effect on business performance and innovation. While government support had a positive effect on innovation, on the one hand, it had no effect on business performance, on the other. Innovation itself is proven to have an influence on business performance. This study also finds that innovation mediates the effect of P2P lending on business performance, facilitates the effect of financial bootstrapping on business performance and reconciles the effect of government support on business performance.

Keywords: P2P lending, financial bootstrapping, government support, MSME performance, innovation

JEL Classification: A1, D9

INTRODUCTION

The availability of financial resources has the ability to stimulate the creation of opportunities for innovation and better business processes (Gergely, 2016). The results of the previous research in Micro-, Small and Medium-sized Enterprises (MSMEs) in

several countries in the Asian and African regions have been faced with obstacles in gaining access to external funding, which has resulted in hindering their business development (Abor & Quartey, 2010; Shinozaki, 2014; Mabonga, 2020; Rita & Huruta, 2020).

MSME credit statistics from the Bank Indonesia for 2014 to 2019 show an increase in the MSME outstanding credit by almost 50 percent. However, this amount is still far below the credit received by non-MSMEs. Conventional MSME funding (banking)

* Correspondence to: M. R. Rita, Faculty of Economics and Business, Satya Wacana Christian University, Jl. Diponegoro 52-60, Salatiga 50711, Central Java, Indonesia; e-mail: maria.rita@uksw.edu

also has various constraints, whether from the point of view of banks' interests or from the point of view of MSME entrepreneurs themselves (Mitrasevic & Bardarova, 2020). This condition implies that MSMEs' utilization of credits is still far below that of non-MSMEs. This empirical condition occurred in normal economic conditions. Beginning in March 2020, changes were made in the conditions of society and the business world due to the COVID-19 pandemic in Indonesia. The COVID-19 pandemic has the ability to change an individual's behavior, including behavior in business management. Entrepreneurs tend to perceive risky situations in an optimistic frame of mind compared to an average person (Cheung & Chow, 2006). This phenomenon is what drives this study to examine funding strategies during the COVID-19 pandemic to improve the performance of MSMEs using an opportunity-based entrepreneurship theory framework.

P2P lending is a platform that connects fund owners and borrowers directly through online media (Chen, Lai & Lin, 2014), namely through applications developed by financial technology (fintech) service providers. Funding activities cannot be separated from the government's role through financial and nonfinancial incentives provided to MSMEs. Barriers for MSMEs to gain access to formal funding and online loans such as Peer-to-Peer lending (P2P lending) encourage entrepreneurs to seek alternative funding with high opportunities for funding, an easy fulfillment of requirements, and a fast process. In the literature on small businesses or startups, this nonconventional funding strategy is referred to as financial bootstrapping (Lam, 2010). The collaboration of the three elements (online funding, government support, and financial bootstrapping) is alleged to be able to improve the performance of MSMEs.

This research is aimed at examining whether Peer-to-Peer (P2P) lending, financial bootstrapping and government support affect the performance of MSMEs by considering the mediating effect of innovation. The framework of this research model is based on the opportunity-based entrepreneurship theory, which views that an entrepreneurial activity can be derived from changes in the external environment. As far as is known, there are still limited studies

regarding funding strategies for MSMEs, through the synergy of financiers, the government, and MSME entrepreneurs in order to improve business performance. The contribution of this research is to place the role of three parties who play the central role (the government, entrepreneurs, and financiers), in formulating a model for strengthening the performance of MSMEs during the pandemic. The MSME development strategy is very important to pay attention to the roles and interests of various parties. The MSME development strategy is very important to examine the roles and interests of various parties (Ilić, Vujičić & Mičić, 2006). Financiers are represented by the implementation of fintech in the form of P2P lending; while the government element, as the regulator and guarantor of stability in the business world, is represented by financial and nonfinancial support for MSMEs; and the entrepreneurial elements that are proxied from their capabilities take advantage of nonconventional funding alternatives to meet working capital needs. The research subject is the micro-, small, and medium-scale entrepreneurs in the city of Salatiga, Central Java, Indonesia. This research uses a survey method to obtain primary data about the practice of managing MSMEs in this pandemic period. Next, the research data will be processed with the SEM-PLS technique to test the formulated hypotheses. This study consists of five sections, namely: the Introduction, the Literature Review, the Research Methodology, the Analysis and Discussion, and the Conclusion.

LITERATURE REVIEW

The Opportunity-Based Entrepreneurship Theory (OBET) discusses external resources that can stimulate entrepreneurship, consisting of the locus of changes, the sources of opportunity, and the initiator of changes (Eckhardt & Shane, 2003). The role of the government that is effective in supporting MSMEs is realized as the facilitator, regulator, and catalyst (Gede, 2009). As the facilitator, the government facilitates production training, access to funding, access to markets, and so on. As the regulator, the government makes policies that are conducive to

the development of MSMEs. As the catalyst, the government accelerates the development of MSMEs into fast-moving enterprises, through empowering creative communities, protecting intellectual property rights, and facilitating capital.

The birth of a business begins with an individual's observant identification of opportunities. If these opportunities are not followed up by efforts to mobilize and assemble the required resources, then the business is only a wishful thinking/a dream. There is an ease in facilitation in P2P lending; business funding opportunities from business networks, as well as assistance from the government, are the resources able to stimulate the activities of small entrepreneurs in difficult conditions. By utilizing these resources, entrepreneurs have the potential to start and even develop their businesses.

One of the obstacles faced by MSMEs is the difficulty of accessing funding from formal financial institutions, such as banks (Adeyele, 2018). P2P lending is a funding alternative that is easier, cheaper, and more flexible than banking funding. As an alternative to funding, P2P lending will contribute to improving the performance of MSMEs. P2P lending opens opportunities for MSMEs to grow (Eldridge, Nisar & Torchia, 2021) and creates a network between MSMEs and investors. Strengthening this network will encourage the improvement of the performance of MSMEs (Cenamor, Parida & Wincent, 2019).

H1: Peer-to-Peer lending improves business performance.

Financial bootstrapping is an alternative solution in order to overcome the scarcity of capital resources from external sources (Efrata & Herdinata, 2012). This strategy has implications for the low cost of capital borne by MSMEs. Working capital management from bootstrapping is able to increase sales turnover, thereby increasing business performance (Jones & Jayawarna, 2010), given that adequate working capital ensures smooth daily business operations.

H2: Financial bootstrapping improves business performance.

Government funding assistance can be used for working capital (Bygrave & Zacharakis, 2010) to

carry out promotional, customization, distribution, and customer service strategies. The government can also provide nonmonetary support, such as production training, technology training, marketing training, and management training. Management training allows MSMEs to identify the strengths, weaknesses, threats, and opportunities, which will support increased performance (Matusik, George & Heeley, 2008). The combination of financial support and nonmonetary support will increase the commercialization of MSMEs, sales growth, and the ability of MSMEs to survive (Ástebro & Serrano, 2015; Park, Lee & Kim, 2020).

H3: Government support improves business performance.

There is an influence between P2P lending and innovation (Culkin, Murzacheva & Davis, 2016; Rosavina & Rahadi, 2018). The availability of funds from P2P lending is the key to innovation (Stanko & Henard, 2016; Paschen, 2017). The MSMEs that access P2P lending will have more opportunities to innovate because MSMEs are not burdened with very high loan interest rates (Chen & Chen, 2012). The financial service companies that connect fund owners and MSMEs are monitored by regulators, so that the amount of loan interest is also monitored.

H4: Peer-to-Peer lending improves innovation in Micro-, Small and Medium-sized Enterprises.

The individuals who have the ability to recognize opportunities will seek and mobilize homogeneous resources into heterogeneous outputs through efficient business operations (Alvarez & Barney, 2008). Financial bootstrapping is often carried out by new and small companies when facing a scarcity of resources (Löfqvist, 2017). These startup business constraints can be overcome by utilizing the social capital of entrepreneurs in the form of personal networks.

H5: Financial bootstrapping stimulates innovation in Micro-, Small and Medium-sized Enterprises.

When associated with the two elements in this MSME funding model, it appears that the positive relationship exists between government support

and innovation (Dahlstrand & Stevenson, 2010; Doh & Kim, 2014). MSMEs often experience limited capital constraints (Bygrave & Zacharakis, 2010). On the other hand, innovation requires sufficient funds for research, so that financial support from the government will support MSMEs to innovate. Government support for innovation can also be in the form of various training programs and the policies that are conducive to innovation, and providing incentives for the MSMEs that have succeeded in making innovations (Patanakul & Pinto, 2014). In addition, the government can also facilitate MSMEs to acquire technology through various training and funding schemes. Mastery of these technologies will support increased innovation in MSMEs (Savović, Zlatanović & Nikolić, 2021).

H6: Government support improves innovation in Micro-, Small and Medium-sized Enterprises.

Referring to previous research, innovation is another factor that can affect the performance of MSMEs (Otero-Neira, Tapio Lindman & Fernández, 2009; Love & Roper, 2015; Mustikowati & Tysari, 2015). The high element of business uncertainty requires entrepreneurs to quickly adapt and be innovative, so that businesses can survive. Innovation activities will thrive in an open environment (Malinen, Puhakainen & Paasio, 2009). MSMEs are considered more innovative than large companies, because of their flexibility and ability to integrate their findings quickly and efficiently into their business activities (Verhees & Meulenberg, 2004). The ideas and creativity of entrepreneurs are embodied in business strategies so as for them to be able to operate and outperform competitors (Guo, Tang, Su & Katz, 2017), which may result in an increase in business performance.

H7: Innovation improves Micro-, Small and Medium-sized Enterprises performance.

However, there are findings that access to funding does not necessarily have an effect on improving the performance of MSMEs (Goldhausen, 2017; Ruslan, Gan, Hu & Quang, 2020). Likewise, there are findings of direct and indirect effects of financial bootstrapping on the performance of MSMEs (Jones & Jayawarna, 2010), as well as government support that has no effect on the performance of MSMEs (Ratnawati & Hikmah,

2013; Pramaishella, 2017). It is suspected that there is a role for the mediating variable in the relationship between these variables. The consideration of testing the innovation variable as the mediator of the effect of P2P lending, government support, and financial bootstrapping on the performance of MSMEs is also based on the results of the previous research which concluded that P2P lending was a funding alternative capable of supporting product innovation and new business processes (Sangwan, Null, Prakash & Singh, 2019). In addition, government support is proven to increase product promotion and innovation (Ashford, 2000), so that innovation is also possible to bridge the influence of government support on the performance of MSMEs. Apart from being influenced by P2P lending and government support, innovation can also be determined by financial bootstrapping. Adequate capital allows companies to always be able to carry out an innovation process, which is the key to business continuity, including continuity for small and medium-sized enterprises. Financial bootstrapping is one of the funding alternatives that can be performed by MSMEs (Carter & Van Auken, 2005). Furthermore, innovation will improve the performance of MSMEs (Abraham & Rahardjo, 2015; Ranatiwi & Mulyana, 2018; Kalil & Aenurohman, 2020).

P2P lending, which makes access to MSME funding easier, will provide opportunities for innovation (Stanko & Henard, 2016; Paschen, 2017). In turn, innovation will bring benefits in the form of an improvement of the performance of MSMEs. Useful innovation increases the competitive advantage and performance of MSMEs (Anwar, 2018). P2P lending allows MSMEs to innovate and grow, which in turn will improve performance.

H8: Innovation mediates the influence of Peer-to-Peer lending on business performance.

In addition to being influenced by financial bootstrapping (Jones & Jayawarna, 2010), the performance of MSMEs is also determined by innovation (Sok, O'Cass & Sok, 2013), where innovation itself is influenced by financial bootstrapping (Löfqvist, 2017). MSME entrepreneurs seek to overcome scarce resource access by implementing easier, lower-cost, flexible, and independent ways to

produce something new. Innovation is a company's mechanism enabling it to adapt to a dynamic environment, maintain business continuity, and produce superior performance (Utaminingsih, 2016).

H9: Innovation mediates the influence of financial bootstrapping towards business performance.

Sustainable performance will be realized if MSME actors innovate in accordance with environmental dynamics (Russell & Millar, 2014). Therefore, innovation is thought to bridge the influence of government support on the performance of MSMEs. Increased innovation will help MSMEs realize product/service differentiation strategies and increase efficiency, which in turn improves the performance of MSMEs.

H10: Innovation mediates the influence of government support towards business performance.

RESEARCH METHODOLOGY

The population in this study was MSMEs in the city of Salatiga, which in 2019 was recorded with as many as 1,969 business units (Badan Pusat Statistik, 2020). The study sample was obtained by a convenience sampling technique, as there was no permanent list of enterprises on this scale. By referring to the Slovin formula, the minimum target sample was 95 business units. The research data were obtained from primary sources through direct surveys of the business actors. The questionnaires were distributed to 200 respondents, and 124 questionnaires were returned (a 62% response rate). Of the 128 questionnaires, there were 12 incomplete questionnaires, so the total data used in this study came from 112 SME entrepreneur respondents (meets the target sample of at least 95 respondents). The data analysis technique in this study used Partial Least Squares (PLS) - Structural Equation Modeling (SEM) with the WarpPLS 7.0 application.

Table 1 provides the variables in the model and their respective measurements.

EMPIRICAL RESULTS

According to Table 2 below, it is known that the respondents' business performance in this study is, generally speaking, in the medium category. The interests, intentions, and efforts of the businesspeople in using online loans are low. The financial bootstrapping strategy implemented by the business actors is also moderate. With regard to government support, the business actors consider that financial support is considered more pronounced than non-financial support. In general, the respondents' innovations are in the medium category, but the business network innovation and the new market innovation are considered more intensive than the innovation related to new processes.

The value of the R-squared variation (R^2) which affects BP is included in the moderate category because $R^2 < 0.45$ (Latan & Ghozali, 2016). Furthermore, based on the Q-squared value, it can be interpreted that the model has predictive relevance (Latan & Ghozali, 2016). The value of the R^2 variation that affects IN is included in the strong category because $0.45 < R^2 < 0.7$ (Latan & Ghozali, 2016). Furthermore, the resulting Q-squared value for the IN variable shows that the model has predictive relevance (Latan & Ghozali, 2016).

Based on the output in Table 3 and Figure 1, it is confirmed that the hypotheses 1, 2, 4, 5, 6, and 7 are accepted. However, hypothesis 3 is rejected. Table 4 shows that IN mediates all indirect effects in this study, namely the effect of P2P, FB, and GS on BP with the p-value results significant at the level of $p < 0.1$ and $p < 0.01$. Furthermore, the VAF analysis shows that the P2P-IN-BP and FB-IN-BP mediation pathways produce a VAF value < 80 percent (0.463 and 0.576), which indicates that IN-mediation is partial mediation. Meanwhile, the GS-IN-BP mediation pathway results in a VAF value of > 80 percent (1.312), which indicates the role of IN mediation as full mediation. Therefore, the hypotheses 8, 9, and 10 are accepted.

Table 1 The variables and their measurements

Variable	Dimension	Indicator	Reference
Business performance	Financial	Profit	Adopted from Rita and Thren (2019)
	Nonfinancial	Business turnover	
	Entrepreneurial	Customer growth	
		Market access growth	
		Entrepreneur satisfaction towards the profit produced	
		The level of employee welfare	
Growth in the number of employees			
P2P Lending	Interest	Interest to use P2P lending to fulfill startup capital	Adopted from Soegesty, Fahmi & Novianti (2020)
	Intention	The intention to use P2P lending to fulfill startup capital	
	Plan	A plan to use P2P lending	
	Execution	An effort to look for the newest information about P2P lending	
Financial bootstrapping	Customer-related bootstrapping	Keep the accounts receivable levels as low as possible	Adopted from Winborg & Lanstrom (2001)
	Owner-related bootstrapping	Keep supply as low as possible	
	Joint utilization	Delay payments to maintain the business cash cycle	
		Entrepreneurs rely more on personal resources than on external funding	
		Various resources to reduce costs	
Government support	Financial support	Funding assistance	Modified from Gede (2009)
	Nonfinancial support	Capital access assistance	
		Marketing access assistance	
		Production training	
		Management training	
		Marketing training	
		Business management training	
		Bookkeeping training	
		Policies/regulations/ procedures which facilitate MSMEs	
		Innovation	
New process	The perfection of a production process		
New market	The creation of a new market		
New raw materials	The use of new raw materials		

Source: Authors

DISCUSSION

This research study has established the fact that the hypothesis 1 is accepted. P2P lending can be said to have a positive effect on business performance. This means that more P2P lending will further improve business performance. This funding can be used by MSME entrepreneurs to meet working capital needs in normal business activities and to expand their businesses. Smooth access to funding is proven to be able to improve the performance of MSMEs (Pan,

2019). Loans through P2P lending are one of the funding solutions, because they are relatively more accessible than bank credit funding.

This study proves that the hypothesis 2 is accepted, where FB has a significant positive effect on BP. This means that financial bootstrapping can improve business performance. The advantages of using bootstrapping funding include the fact that it is easy to obtain, has minimum requirements, no business plan in much detail is needed, and no guarantees

Table 2 The average scores of research variables

	Average		Category
	Dimension	Variable	
Financial performance	2.66		Medium
Nonfinancial performance	3.10		Medium
Entrepreneurial performance	2.90		Medium
Business performance (BP)		2.89	Medium
Interest to use online borrowing	1.96		Low
The intention to use online borrowing	1.96		Low
A plan to use online borrowing	2.02		Low
An effort to find out about online borrowing	2.15		Low
P2P lending (P2P)		2.02	Low
Financial bootstrapping - customer-related	3.37		Medium
Financial bootstrapping - owner-related	3.56		Medium
Financial bootstrapping - joint utilization	1.95		Low
Financial bootstrapping (FB)		2.96	Medium
Government support - Financial	2.79		Medium
Government support - Nonfinancial	2.57		Medium
Government support (GS)		2.68	Medium
A new product innovation	3.01		Medium
A new process innovation	2.82		Medium
A new market innovation	4.08		High
A new raw material innovation	3.28		Medium
The business network innovation	3.77		High
Innovation (IN)		3.39	Medium

Source: Authors

are required (Efrata & Herdinata, 2012). The working capital management that emerged due to the use of bootstrapping funding allowed the smooth running of daily business operations. The bootstrapping funding strategy allows MSME entrepreneurs to develop a competitive advantage by creating an environment where all businesses involved in the bootstrapping network use the most efficient resources, because they do not require capital costs. This increase in efficiency will have an impact on improving the performance of MSMEs (Vanacker, Manigart, Meuleman & Sels, 2011). Bootstrapping allows MSME entrepreneurs to be able to react more quickly to new opportunities and change business strategies when it is deemed to be necessary.

Hypothesis 3 in this study, namely the hypothesis reading that GS has a positive effect on BP, has not been

proven. This means that the amount of government support does not determine good or bad business performance. Based on the results, the GS variable demonstrates a negative and insignificant effect on BP. The hypothesis 3 is assumed to be rejected. This is presumably because most government support received by MSME entrepreneurs in Salatiga is in the form of financial support. In the current condition of the COVID-19 pandemic, there is a possibility that this financial assistance will be used more by MSME entrepreneurs to maintain the viability of their businesses than to improve performance, because most of the phases of the lifecycle of MSMEs in this study are at the early/startup stage. This results in government support unable to improve the performance of MSMEs (Ratnawati & Hikmah, 2013; Pramaishella, 2017).

Table 3 The estimation results of the relationships between the variables

Description Path	Path Coefficient	P-value	R ²	Q ²	Hypothesis
P2P → BP	0.094	0.097**	0.413	0.412	H1 is accepted
FB → BP	0.114	0.058**			H2 is accepted
GS → BP	-0.065	0.182			H3 is rejected
IN → BP	0.572	<0.001*			H7 is accepted
P2P → IN	0.141	0.026*	0.523	0.525	H4 is accepted
FB → IN	0.271	<0.001*			H5 is accepted
GS → IN	0.460	<0.001*			H6 is accepted

* significant at 0.5 ** significant at 0.1

Source: Authors

Next, this research has concluded that the hypothesis 4 is accepted. The P2P variable has a significant

positive effect on IN. Financial bootstrapping can be said to have demonstrated the ability to stimulate SME

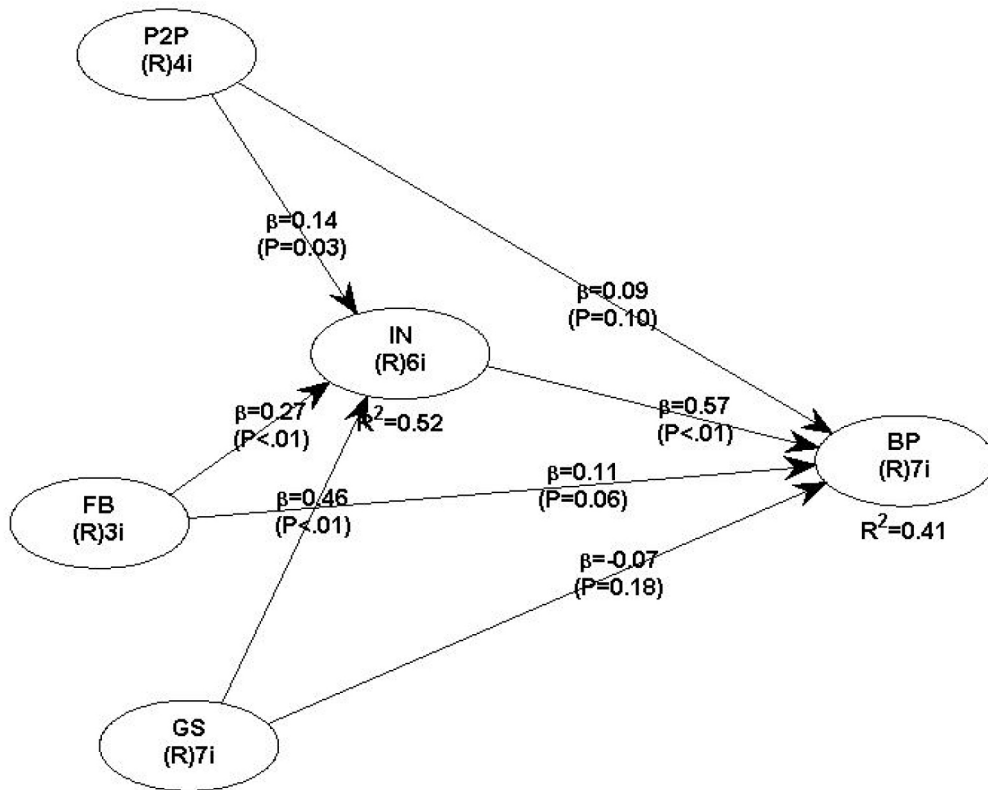


Figure 1 The estimation results of the relationships between the variables

Source: Authors

Table 4 Testing the role of innovation mediation on the influence of P2P, FB, and GS towards BP

Description	Coefficient	P-Value	Conclusion	Hypothesis
P2P → IN → BP	0.081	0.057**	Mediation	H8 is accepted
FB → IN → BP	0.155	0.001*	Mediation	H9 is accepted
GS → IN → BP	0.263	<0.001*	Mediation	H10 is accepted

* significant at 0.5 ** significant at 0.1

Source: Authors

innovation. The greater the impact the P2P variable has, the greater the innovation of MSMEs. Therefore, it can be concluded that the greater the impact the P2P variable has, the greater the innovation of MSMEs. The results of this study are in line with the research of J. Paschen (2017) as well as M. A. Stanko and D. H. Henard (2016). F. Herve and A. Schwienbacher (2018) stated that P2P lending could reduce the funding gap for startups and MSMEs by providing more flexible funding alternatives, especially so for innovation-based startups and MSMEs. The MSME innovation process is very dependent on the funds availability (Freel, 2007; Ayyagari, Demirgüç-Kunt & Maksimovic, 2010). P2P lending provides a funding alternative relatively easy for MSME entrepreneurs to access. P2P lending funding agreements do not require MSMEs to give up business control to the fund provider and the engagement is formally supervised by the Financial Services Authority (OJK). This encourages MSMEs to develop innovations because MSME entrepreneurs are not burdened with very high loan interest rates (Chen & Chen, 2012).

The FB variable has a significant positive effect on IN. Thus, these results support the hypothesis 5. Financial bootstrapping can be said to have demonstrated the ability to stimulate SME innovation. The pandemic conditions have forced the business sector not to operate freely. Therefore, a nonconventional funding strategy (financial bootstrapping) is needed for MSME innovation to be able to continue. Based on the empirical conditions of this research sample, MSME entrepreneurs in the city of Salatiga are known to be taking advantage of financial bootstrapping through relationships with customers (for example: selling products in cash, asking for down payments for product orders, and producing goods when

there are orders only); and the utilization of the owner's personal funds (self-finance) at a moderate level to reduce financial risks during this pandemic. Meanwhile, bootstrapping through joint utilization during the pandemic shows to be at a low level. This indicates that, during the pandemic, demand for MSME products is reduced so that entrepreneurs do not need to outsource the orders they receive to their business partners. This bootstrapping strategy can stimulate innovation activities in MSMEs by utilizing the social capital owned by entrepreneurs namely in the form of personal networks (Schoonjans, Van Cauwenberge & Vander Bauwhede, 2013).

The output of this study allows us to notice that the GS variable has a significant positive effect on IN. That the hypothesis 6 is accepted is confirmed. To sum up, government support improves innovation in SMEs. According to institutional theory, the government supports the existence of MSMEs through the policies that are conducive to creating an environment and efforts to grow new businesses through interactions with industries and academia, especially at risky business stages (Chandra & Silva, 2012). However, the government still plays a major role in this case, considering the fact that all the policies/regulations already set will become a working reference for the parties concerned. Government policies are designed to generate business innovation through the provision of funds and other resources, which may encourage the quantity and quality of entrepreneurial activities in society (Wanhill, 2013).

The IN variable has a significant positive effect on BP. It is concluded that the hypothesis 7 is accepted. Innovation can be said to improve SME performance. Innovation is the hallmark of an entrepreneur,

especially when dealing with oscillations/shock conditions due to the COVID-19 epidemic, as is the case today. Opportunity recognition is very important for entrepreneurs. Entrepreneurs need to take certain actions to translate the previously recognized opportunities in order for them to be able to perform well (Shane, Locke & Collins, 2003). A. Eggert, C. Thiesbrummel and C. Deutscher (2014) agree on the fact that innovative products and services have a positive effect on business performance. This effort can be made through the creation of a business model innovation different from its competitors (business model innovation) (Guo *et al*, 2017).

Furthermore, the innovation variable positively mediates the effect of PP on BP. It is concluded that the hypothesis 8 is accepted. During this pandemic, entrepreneurs are being faced with changes in various aspects of their business, including collaboration between businesses (Crick & Crick, 2020), marketing strategies (Kristinae, Wardana, Giantari & Rahyuda, 2020), and the supply chain aspects (Iyengar, Vaishya, Bahl & Vaish, 2020). During a pandemic, access to funding is one of the serious problems faced by business actors. The availability of credit, bank loans, and due payments to suppliers is increasingly limited due to the impact of the COVID-19 pandemic (Ferrando & Ganoulis, 2020). In this condition of limited access, P2P lending is one of the solutions adopted by business actors (Bella, 2020). Theoretically, broad access to funding during a pandemic will encourage innovation in anticipation of changes in the business environment. Based on the research data, however, business actors' innovation is not high. This is consistent with low access to P2P lending funding during the pandemic, so that innovation is not high. Furthermore, this study has also found that business performance is of moderate value. Therefore, these findings indicate that the innovation mediates the influence of P2P lending on business performance.

Based on the result above, the role of innovation mediation on the effect of FB on the growth of KU is the category of partial mediation. Thus, these results support the hypothesis 9. Innovation can be said to mediate the influence of financial bootstrapping towards business performance. Theoretically, the

existence of financial bootstrapping will increase innovation which in turn will have an impact on strengthening business performance. In pandemic conditions, businesses experience a decrease in the demand and supply chain disruptions (Thaha, 2020). This low business turnover condition enables entrepreneurs to meet their business needs from the resources they currently have. This is indicated by the low level of financial bootstrapping, particularly in the joint utilization indicator. During the pandemic, business actors reduce employee working hours and reduce outsourcing (Serrano & Kazda, 2020). This also results in low innovation, which in turn results in lower business performance. The logic that innovation mediates the relationship between financial bootstrapping and business performance is confirmed by the results of this study, which particularly in an abnormal condition shows low resource utilization due to reduced demand.

It can also be seen that the IN variable positively mediates the effect of GS on BP. The role of innovation mediation on the effect of DP on the growth of KU is in the full mediation category. Thus, the hypothesis 10 is accepted. Business performance will be achieved if entrepreneurs continuously innovate (Russell & Millar, 2014). However, the characteristics of MSME players generally have limitations in terms of human resources, operational resources, funding, and imitation behavior by competitors, often becoming obstacles to innovation (Sari & Asad, 2018). In the midst of these limitations, MSME entrepreneurs need the role of the government. The government has a role in bridging innovation, so that it can have an impact on business performance through research and policies (Demirbas, Hussain & Matlay, 2011). The government provides more support that focuses on the availability of short-term cash flows such as direct cash assistance and tax relief.

CONCLUSION

This research found that peer-to-peer lending and financial bootstrapping contribute to improving business performance and innovation. Government

support is shown to be able to increase innovation, but it does not influence business performance. Innovation is also proven to be able to influence business performance. In addition, innovation has also demonstrated it can mediate the effects of peer-to-peer lending on business performance, facilitate the effects of financial bootstrapping on business performance, and reconcile the effects of government support on business performance.

These findings are in line with the resource-based entrepreneurship theory, which states that there are various external resources available in the business environment to achieve a competitive advantage (Gupta, Guha & Krishnaswami, 2013; Salder, Gilman, Raby & Gkikas, 2020). Theoretically, the results of this study contribute to the context of research during a pandemic, by accommodating the roles of the three parties (the government, financiers, and entrepreneurs) within the framework of the resource-based entrepreneurship theory. The results of this study have an applicative contribution through recommendations to MSME entrepreneurs. In the context of a pandemic, entrepreneurs may take advantage of government support facilities, financial bootstrapping, and P2P lending to support their business performance. In particular, this study also contributes in that said resources can also be used to strengthen innovation in response to changes in the business environment during a pandemic.

The findings based on which a fact is established that there is no proof of government support having a significant positive effect on business performance need to be further studied. Nearly 70 percent of the samples are the businesses still at the early/startup stage, so they are still focused on strategies to survive during a pandemic. Government assistance in the form of direct cash assistance is more beneficial for startup businesses to support their daily business operations, rather than to be focused on innovation activities. The basic limitation of this research study is that the study has not separated the cycle/phase categories of the MSMEs included in the sample in this study. This limitation creates gaps in the way how resources around MSMEs have specific roles in various MSME cycles/phases. Therefore, future

research may add to the category of business phases/cycles to moderate the influence of government assistance on business performance in order to obtain a study perspective different from the previous research.

ACKNOWLEDGEMENTS

This study was funded by the Satya Wacana Christian University (SWCU) Internal Fund Fundamental Research Grant for the 2021 Fiscal Year, based on Rector's Decree No. 052 / Penel / Rek / 3 / V / 2021 regarding SWCU Lecturer Research Tasks.

REFERENCES

- Abor, J., & Quartey, P. (2010). Issues in SME development in Ghana and South Africa. *International Research Journal of Finance and Economics*, 39, 218-228.
- Abraham, L. A., & Rahardjo, J. (2015). Peran organisasi dan suasana inovasi untuk kinerja UKM. *Jurnal Titra*, 3(2), 235-240.
- Adeyele, J. (2018). Financial institutions' criteria and mechanisms in financing small and medium enterprises in Plateau state, Nigeria. *Economic Horizons*, 20(2), 109-124. doi.org/10.5937/ekonhor1802109A
- Alvarez, S. A., & Barney, J. B. (2008). Resource-Based Theory and the Entrepreneurial Firm. In M. A. Hitt, R. D. Ireland, S. M. Camp, & D. Sexton (Eds.). *Strategic Entrepreneurship: Creating a New Mindset* (pp. 89-105). doi.org/10.1002/9781405164085.ch5
- Anwar, M. (2018). Business model innovation and SMEs performance - Does competitive advantage mediate? *International Journal of Innovation Management*, 22(7), 1-31. doi.org/10.1142/S1363919618500573
- Ashford, N. A. (2000). An innovation-based strategy for a sustainable environment. In J. Hemmelskamp, K. Rennings, & F. Leone (Eds.). *Innovation-Oriented Environmental Regulation* (pp. 67-107). ZEW Economic Studies. doi.org/10.1007/978-3-662-12069-9_5

- Åstebro, T., & Serrano, C. J. (2015). Business partners: Complementary assets, financing, and invention commercialization. *Journal of Economics and Management Strategy*, 24(2), 228-252. doi.org/10.1111/jems.12095
- Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. (2010). Formal versus informal finance: Evidence from China. In *Review of Financial Studies*, 23(8), 1-75. doi.org/10.1093/rfs/hhq030
- Badan Pusat Statistik (BPS). (2020). *Kota Salatiga Dalam Angka 2020*. Retrieved March 21, 2021, from <https://salatigakota.bps.go.id/publication/2020/04/27/e13f5ab768ebe34d45108b60/kota-salatiga-dalam-angka-2020.html>
- Bella, F. I. (2020). Optimization of Islamic peer-to-peer lending for micro and small enterprises (MSEs) after pandemic of Covid-19. *Journal of Islamic Economic Laws*, 3(2), 108-123. doi.org/10.23917/jisel.v3i2.11337
- Bygrave, W. D., & Zacharakis, A. (2010). *The Portable MBA in Entrepreneurship* (4th ed.). Hoboken, NJ: John Wiley & Sons.
- Carter, R. B., & Van Auken, H. (2005). Bootstrap financing and owners' perceptions of their business constraints and opportunities. *Entrepreneurship and Regional Development*, 17(2), 129-144. doi.org/10.1080/08985620500067548
- Cenamor, J., Parida, V., & Wincen, J. (2019). How entrepreneurial SMEs compete through digital platforms: The roles of digital platform capability, network capability and ambidexterity. *Journal of Business Research*, 100(July), 196-206. doi.org/10.1016/j.jbusres.2019.03.035
- Chandra, A., & Silva, M. A. M. (2012). Business incubation in Chile: Development, financing and financial services. *Journal of Technology Management and Innovation*, 7(2), 1-13. doi.org/10.4067/S0718-27242012000200001
- Chen, D., Lai, F., & Lin, Z. (2014). A trust model for online peer-to-peer lending: A lender's perspective. *Information Technology and Management*, 15(4). doi.org/10.1007/s10799-014-0187-z
- Chen, H., & Chen, S. (2012). Investment-cash flow sensitivity cannot be a good measure of financial constraints: Evidence from the time series. *Journal of Financial Economics*, 103(2), 393-410. doi.org/10.1016/j.jfineco.2011.08.009
- Cheung, C., & Chow, S. (2006). An investigation of the success factors of young Chinese entrepreneurs in Hong Kong. *International Journal of Entrepreneurship*, 10, 43. doi:10.5353/th_b3124410
- Crick, J. M., & Crick, D. (2020). Coopetition and COVID-19: Collaborative business-to-business marketing strategies in a pandemic crisis. *Industrial Marketing Management*, 88(July), 206-213. doi.org/10.1016/j.indmarman.2020.05.016
- Culkin, N., Murzacheva, E., & Davis, A. (2016). Critical innovations in the UK peer-to-peer (P2P) and equity alternative finance markets for small firm growth. *International Journal of Entrepreneurship and Innovation*, 17(3), 194-202. doi.org/10.1177/1465750316655906
- Dahlstrand, A. L., & Stevenson, L. (2010). Innovative entrepreneurship policy: linking innovation and entrepreneurship in a European context. *Annals of Innovation & Entrepreneurship*, 1(1), 1-15. doi.org/10.3402/aie.v1i1.5845
- Demirbas, D., Hussain, J. G., & Matlay, H. (2011). Owner-managers' perceptions of barriers to innovation: Empirical evidence from Turkish SMEs. *Journal of Small Business and Enterprise Development*, 18(4), 764-780. doi.org/10.1108/14626001111179794
- Doh, S., & Kim, B. (2014). Government support for SME innovations in the regional industries: The case of government financial support program in South Korea. *Research Policy*, 43(9), 1557-1569. doi.org/10.1016/j.respol.2014.05.001
- Eckhardt, J. T., & Shane, S. A. (2003). Opportunities and entrepreneurship. *Journal of Management*, 29(3), 333-349. doi.org/10.1177/014920630302900304
- Efrata, T. C., & Herdinata, C. (2012). Penerapan metode bootstrap financing pada usaha kecil dan menengah di Surabaya. *Keuangan Dan Perbankan*, 16(3), 399-406. doi.org/10.26905/jkdp.v16i3.1078
- Eggert, A., Thiesbrummel, C., & Deutscher, C. (2014). Differential effects of product and service innovations on the financial performance of industrial firms. *Journal of Business Market Management*, 7(3), 380-405.
- Eldridge, D., Nisar, T. M., & Torchia, M. (2021). What impact does equity crowdfunding have on SME innovation and growth? An empirical study. *Small Business Economics*, 56(1), 105-120. doi.org/10.1007/s11187-019-00210-4
- Ferrando, A., & Ganoulis, I. (2020). Firms' expectations on access to finance at the early stages of the Covid-19 pandemic. *ECB Working Paper Series 2446*. doi.org/10.2866/057681

- Freel, M. S. (2007). Are small innovators credit rationed? *Small Business Economics*, 28(1), 23-35. doi.org/10.1007/s11187-005-6058-6
- Gede, D. (2009). *Mengembangkan UKM melalui pemberdayaan peran pemerintah daerah*. Jakarta, ID: Bakrie School of Management.
- Gergely, F. (2016). The effects of strategic orientations and perceived environment on firm performance. *Journal of Competitiveness*, 8(1), 55-65. doi.org/10.7441/joc.2016.01.04
- Goldhausen, J. (2017). *Access to finance and growth : Evidence from Dutch SMEs*. Paper presented at the 9th annual International Conference of Education, Research and Innovation IBA Bachelor Thesis Conference.
- Guo, H., Tang, J., Su, Z., & Katz, J. A. (2017). Opportunity recognition and SME performance: The mediating effect of business model innovation. *R&D Management*, 47(3), 431-442. doi.org/10.1111/radm.12219
- Gupta, P., Guha, S., & Krishnaswami, S. (2013). Firm growth and its determinants. *Journal of Innovation and Entrepreneurship*, 2(1), 1-14. doi.org/10.1186/2192-5372-2-15
- Herve, F., & Schwienbacher, A. (2018). Crowdfunding and innovation. *Journal of Economic Surveys*, 32(5), 1514-1530. doi.org/10.1111/joes.12274
- Ilić, M., Vujičić, M., & Mičić, V. (2006). SME's food processing industry and enterprises in function of rural areas development. *Economic Horizons*, 8(1-2), 89-105.
- Iyengar, K. P., Vaishya, R., Bahl, S., & Vaish, A. (2020). Impact of the coronavirus pandemic on the supply chain in healthcare. *Healthcare Management*, 26(6), 1-4. doi.org/10.12968/bjhc.2020.0047
- Jones, O., & Jayawarna, D. (2010). Resourcing new businesses: Social networks, bootstrapping and firm performance. *Venture Capital*, 12(2), 127-152. doi.org/10.1080/13691061003658886
- Kalil, K., & Aenurohman, E. A. (2020). Dampak kreativitas dan inovasi produk terhadap kinerja UKM di kota Semarang. *Jurnal Penelitian Humaniora*, 21(1), 69-77. doi.org/10.23917/humaniora.v21i1.8581
- Kristinae, V., Wardana, I. M., Giantari, I. G. A. K., & Rahyuda, A. G. (2020). The role of powerful business strategy on value innovation capabilities to improve marketing performance during the covid-19 pandemic. *Uncertain Supply Chain Management*, 8(4), 675-684. doi.org/10.5267/j.uscm.2020.8.005
- Lam, W. (2010). Funding gap, what funding gap? Financial bootstrapping: Supply, demand and creation of entrepreneurial finance. *International Journal of Entrepreneurial Behaviour & Research*, 16(4), 268-295. doi.org/10.1108/13552551011054480
- Latan, H., & Ghozali, I. (2016). *Partial Least Square Konsep, Metode dan Aplikasi Menggunakan WarpPLS 5.0*. Semarang: Badan Penerbit Universitas Diponegoro.
- Löfqvist, L. (2017). Product innovation in small companies: Managing resource scarcity through financial bootstrapping. *International Journal of Innovation Management*, 21(2), 1-27. doi.org/10.1142/S1363919617500207
- Love, J. H., & Roper, S. (2015). SME innovation, exporting and growth: A review of existing evidence. *International Small Business Journal: Researching Entrepreneurship*, 33(1), 24-48. doi.org/10.1177/0266242614550190
- Mabonga, M. W. (2020). Financial bootstrapping strategy and sustainability of small and medium enterprises in Kanduyi Sub - County, Kenya. *American International Journal of Business Management*, 3(8), 95-107.
- Malinen, P., Puhakainen, J., & Paasio, A. (2009). From science to business: Case Turku innovation platform. *International Review of Business Research Papers*, 5(2), 194-212.
- Matusik, S. F., George, J. M., & Heeley, M. B. (2008). Values and judgment under uncertainty: Evidence from venture capitalist assessments of founders. *Strategic Entrepreneurship Journal*, 2(2), 95-115. doi.org/10.1002/sej.45
- Mitrasevic, M., & Bardarova, S. (2020). Measuring the risk of lending to small and medium-sized enterprises in The Republic of Serbia in light of modern banking regulations. *Economic Horizons*, 22(3), 245-258. doi.org/10.5937/ekonhor2003263M
- Mustikowati, R. I., & Tysari, I. (2015). Orientasi kewirausahaan, inovasi, dan strategi bisnis untuk meningkatkan kinerja perusahaan (studi pada UKM sentra Kabupaten Malang). *Jurnal Ekonomi MODERNISASI*, 10(1), 23-37. doi.org/10.21067/jem.v10i1.771
- Otero-Neira, C., Tapio Lindman, M., & Fernández, M. J. (2009). Innovation and performance in SME furniture industries. *Marketing Intelligence & Planning*, 27(2), 216-232. doi.org/10.1108/02634500910944995

- Pan, Y. (2019). Research on financing preference and performance of sci-tech finance for sci-tech SMEs. *Advances in Economics, Business and Management Research*, 380-384. doi.org/10.2991/icified-19.2019.72
- Park, S., Lee, I. H., & Kim, J. E. (2020). Government support and small - and medium-sized enterprise (SME) performance: The moderating effects of diagnostic and support services. *Asian Business and Management*, 19, 213-238. doi.org/10.1057/s41291-019-00061-7
- Paschen, J. (2017). Choose wisely: Crowdfunding through the stages of the startup life cycle. *Business Horizons*, 60(2), 179-188. doi.org/10.1016/j.bushor.2016.11.003
- Patanakul, P., & Pinto, J. K. (2014). Examining the roles of government policy on innovation. *Journal of High Technology Management Research*, 25(2), 97-107. doi.org/10.1016/j.hitech.2014.07.003
- PramaisHELLA, N. A. (2017). Pengaruh modal, dukungan pemerintah, dan kompetensi sumber daya manusia terhadap kinerja usaha mikro, kecil dan menengah. *Jurnal Akuntansi*, 1(1), 1-27.
- Ranatiwi, M., & Mulyana, M. (2018). Dampak jejaring kolaborasi dan kapabilitas inovasi terhadap kinerja. *Jurnal Ekonomi Dan Bisnis*, 19(1), 49-58. doi.org/10.30659/ekobis.19.1.49-58
- Ratnawati, A. T., & Hikmah. (2013). Faktor-faktor yang mempengaruhi kinerja UMKM. *Jurnal Serat Acitya*, 2(1), 102-115.
- Rita, M. R., & Thren, A. T. (2019). A three-dimensional model of MSME performance: An agenda for further research. *BISMA (Bisnis Dan Manajemen)*, 12(1), 1-14. doi.org/10.26740/bisma.v12n1.p1-14
- Rita, M. R., & Huruta, A. D. (2020). Financing access and SME performance: A case study from batik SME in Indonesia. *International Journal of Innovation, Creativity and Change*, 12(12), 203-224.
- Rosavina, M., & Rahadi, R. A. (2018). Peer-To-Peer (P2P) lending platform adoption for small medium enterprises (SMEs): A preliminary study. *International Journal of Accounting, Finance and Business (IJAFB)*, 3(10), 260-279.
- Ruslan, R.A.H.M., Gan, C., Hu, B., & Quang, N. T. T. (2020). Impact of microcredit on SMEs performance in Malaysia. *International Journal of Business and Economics*, 19(1), 109-130.
- Russell, S. N., & Millar, H. H. (2014). Exploring the relationships among sustainable manufacturing practices, business performance and competitive advantage: Perspectives from a developing economy. *Journal of Management and Sustainability*, 4(3), 37-53. doi.org/10.5539/jms.v4n3p37
- Salder, J., Gilman, M., Raby, S., & Gkikas, A. (2020). Beyond linearity and resource-based perspectives of SME growth. *Journal of Small Business Strategy*, 30(1), 1-17.
- Sangwan, V., Null, H., Prakash, P., & Singh, S. (2019). Financial technology: A review of extant literature. *Studies in Economics and Finance*, 37(1), 71-8. doi.org/10.1108/SEF-07-2019-0270
- Sari, R. P., & Asad, N. (2018). Barrier in design innovation of fashion business: Evidence from Indonesian moslem fashion SME. *Jurnal Dinamika Manajemen*, 9(1), 69-79. doi.org/10.15294/jdm.v9i1.14653
- Savović, S., Zlatanović, D., & Nikolić, J. (2021). Technology acquisitions as a supporting tool for improving companies' innovative potential. *Economic Horizons*, 23(1), 3-17. doi.org/10.5937/ekonhor2101003s
- Schoonjans, B., Van Cauwenberge, P., & Vander Bauwhede, H. (2013). Formal business networking and SME growth. *Small Business Economics*, 41(1), 169-181. doi.org/10.1007/s11187-011-9408-6
- Serrano, F., & Kazda, A. (2020). Business continuity during pandemics - Lessons learned about airport personnel. *Transportation Research Procedia*, 51, 56-66. doi.org/10.1016/j.trpro.2020.11.008
- Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. *Human Resource Management Review*, 13(2), 257-279. doi.org/10.1016/S1053-4822(03)00017-2
- Shinozaki, S. (2014). A new regime of SME finance in emerging asia: Enhancing access to growth capital and policy implications. *Journal of International Commerce, Economics and Policy*, 5(3), 1-27. doi.org/10.1142/s1793993314400109
- Soegesty, N. B., Fahmi, I., & Novianti, T. (2020). Kajian faktor yang memengaruhi adopsi sistem pinjaman peer to peer lending. *Jurnal Manajemen Teknologi*, 19(1), 59-79. doi.org/10.12695/jmt.2020.19.1.4
- Sok, P., O'Cass, A., & Sok, K. M. (2013). Achieving superior SME performance: Overarching role of marketing, innovation, and learning capabilities. *Australasian Marketing Journal*, 21(3), 161-167. doi.org/10.1016/j.ausmj.2013.04.001

- Stanko, M. A., & Henard, D. H. (2016). How crowdfunding influences innovation. *MIT Sloan Management Review*, 57(3), 1-8.
- Thaha, A. F. (2020). Dampak Covid-19 terhadap UMKM di Indonesia. *Jurnal Brand*, 2(1), 147-153.
- Utaminingsih, A. (2016). Pengaruh orientasi pasar, inovasi, dan kreativitas strategi pemasaran terhadap kinerja pemasaran pada UKM kerajinan rotan di Desa Teluk Wetan, Welahan, Jepara. *Media Ekonomi Dan Manajemen*, 31(2), 77-87. doi.org/10.24856/mem.v31i2.411
- Vanacker, T., Manigart, S., Meuleman, M., & Sels, L. (2011). A longitudinal study on the relationship between financial bootstrapping and new venture growth. *Entrepreneurship and Regional Development*, 23(9-10), 681-705. doi.org/10.1080/08985626.2010.502250
- Verhees, F. J. H. M., & Meulenbergh, M. T. G. (2004). Market orientation, innovativeness, product innovation, and performance in small firms. *Journal of Small Business Management*, 42(2), 134-154. doi.org/10.1111/j.1540-627x.2004.00102.x
- Wanhill, S. (2013). Government assistance for tourism SMEs: From theory to practice. *Small Firms In Tourism: International Perspectives*, 53-70.
- Winborg, J., & Lanstrom, H. (2001). Financial bootstrapping in small businesses: Examining small business managers' resource acquisition behaviors. *Journal of Business Venturing*, 16(3), 235-254. doi.org/10.1016/S0883-9026(99)00055-5

Received on 2nd May 2021,

after revision,

accepted for publication on 25th November 2021

Published online on 6th December 2021

Maria Rio Rita is a lecturer at the Faculty of Economics and Business, Satya Wacana Christian University (FEB SWCU), Indonesia. Her main research interest is financial management.

Yeterina Widi Nugrahanti is a lecturer at the FEB SWCU, Indonesia. Her main research interest is management accounting.

Ari Budi Kristanto is a lecturer at the FEB SWCU, Indonesia. His main research interest is taxation.

KREDITIRANJE RAVNOPRAVNIH KLIJENATA, FINANSIRANJE IZ SOPSTVENIH SREDSTAVA I PODRŠKA DRŽAVE: ULOGA INOVACIONOG POSREDOVANJA NA PERFORMANSE MIKRO-, MALIH I SREDNJIH PREDUZEĆA

Maria Rio Rita, Yeterina Widi Nugrahanti i Ari Budi Kristanto

*Faculty of Economics and Business, Satya Wacana Christian University, Salatiga, Central Java,
Indonesia*

Ova studija ima za cilj da ispita kako kreditiranje ravnopravnih klijenata (P2P), finansiranje iz sopstvenih sredstava i podrška države utiču na performanse mikro-, malih i srednjih preduzeća (MMSP), dodajući posredničku varijablu u obliku inovacija. Od uvođenja inovacionog posredovanja, očekuje se da omogući optimizovanje uticaja državnog finansiranja i podsticaja države u cilju unapređenja poslovnih performansi. U studiji se koristi tehnika SEM-PLS analize (modeliranje strukturnih jednačina metodom delimičnih najmanjih kvadrata). Uzorci u ovoj studiji uključuju MMS preduzeća, sa sedištem u gradu Salatiga u Centralnoj Javi u Indoneziji. Rezultati su pokazali da kreditiranje ravnopravnih klijenata i finansiranje iz sopstvenih sredstava pozitivno utiču na poslovne performanse i inovaciju. Istovremeno, podrška države pozitivno utiče na inovacije, ali ne utiče na poslovne performanse. Dokazano je da inovacije, same po sebi, utiču na poslovne performanse. Takođe, u studiji se dolazi do saznanja da inovacije posreduju u pogledu uticaja kreditiranja ravnopravnih klijenata, olakšavaju učinak finansiranja iz sopstvenih sredstava i usklađuju učinak podrške države, što se odražava na poslovne performanse preduzeća.

Ključne reči: kreditiranje ravnopravnih klijenata, finansiranje iz sopstvenih sredstava, podrška države, performanse MMS preduzeća, inovacija

JEL Classification: A1, D9

Review paper

UDC: 339.168.2(5 12)

doi:10.5937/ekonhor2103275N

TRADE FACILITATION PERFORMANCE INFLUENCES ON ASEAN TRADE FLOWS

Anh Thu Nguyen^{1*} and Thi Mai Thanh Tran²

¹*Vietnam National University, University of Business and Economics, Hanoi, Vietnam*

²*Vietnam Accademy of Social Sciences, Vietnam Institute of Economics, Hanoi, Vietnam*

The Association of Southeast Asian Nations (ASEAN) considers trade facilitation as a driving force in forming a single market and a single production base. This paper constructs an ASEAN scorecard for measuring the performance of trade facilitation strategic plans by ASEAN member states. Next, a structural gravity model is used in the paper in order to estimate the trade facilitation performance influence on ASEAN trade flows. The fact that the indicator of easing Nontariff Barriers (NTBs) and institutional coordination, on the one hand, and the ASEAN member states' engagement indicator, on the other, had the highest enforcement scores in ASEAN in the period 2017-2019. Those two indicators also exert the biggest influence on ASEAN trade flows, especially ASEAN extra-regional trade.

Keywords: ASEAN, trade facilitation, trade flows

JEL Classification: F100, F140, F150

INTRODUCTION

Over the past decades, international trade has increased as a result of the trade barrier dismantling process, especially so tariff reduction and elimination. Recently, however, with relatively low tariff levels, the important and effective way to stimulate trade has been through trade facilitation initiatives, which includes the simplification of required paperwork, the modernization of procedures and the harmonization of customs requirements, among others.

The Association of Southeast Asian Nations (ASEAN) considers trade facilitation as an important driving force in transforming ASEAN into a single market and a single production base. ASEAN Trade Facilitation Framework (ATFF) was adopted in 2016. After its adoption, it was transferred to multi-action plans and strategic measures on the AEC (ASEAN Economic Community) 2025 Trade Facilitation Strategic Action Plan (ATF-SAP). It is expected that ASEAN member countries will strictly follow this action plan and that trade facilitation will significantly contribute to increasing the ASEAN trade flows through minimizing trade costs, promoting participation in global value chains, and increasing the participation of the private sector.

* Correspondence to: A. T. Nguyen, Vietnam National University, University of Business and Economics, E4, 144 Xuan Thuy Street, Cau Giay, Hanoi, Vietnam;
e-mail: thuna@vnu.edu.vn

Given the foregoing, there are two issues worth making a mention of and being dealt with in this paper. The first issue relates to the level of the trade facilitation performance of ASEAN and its member states, and the second issue relates to how the performance of ATF-SAP's trade facilitation measures affects the flow of ASEAN trade in goods inside the region and with other partners.

When the former issue is concerned, a scorecard adapted from the OECD trade facilitation indicators for measuring a trade facilitation strategic plan or actions cited in the ATF-SAP performed by ASEAN member states will be built. Speaking about the latter issue, a structural gravity model will be used to estimate the influence of trade facilitation performance on ASEAN trade flows, pointing out how ASEAN trade flows, especially intraregional trade flows, benefit when the ATF-SAP measures are implemented. The first hypothesis taken over from the literature reads that trade facilitation has a positive influence on trade flows through cutting unnecessary costs. The second hypothesis reads that the improvement of trade facilitation measures unevenly influences trade flows, both in intra-regional and in extra-regional trade. In the ASEAN case, the influence on extraregional trade is expected to be bigger since ASEAN are heavily dependent on the import of intermediate inputs from a country outside the region.

The rest of the paper is structured into a few sections. Section 2 presents a literature review and finds the research gap. In section 3, the background of trade in ASEAN and trade facilitation performance in ASEAN are provided, after which a scorecard for measuring that performance is formed. In Section 4, the data and methodology of the paper are described, and Section 5 is a presentation of the econometric specifications, and the empirical results of the estimation are discussed. Section 6 summarizes the results and provides conclusions.

LITERATURE REVIEW

One of the common findings of the literature is that trade facilitation has a positive influence on trade

flows. Many studies show that trade facilitation reduces trade costs (World Bank, 2009; Hillberry & Zhang, 2015; Nizeyimana & De Wulf, 2016; Go, 2018), and increases trade flows (Iwanow & Kirkpatrick, 2009; Sá Porto, Canuto & Morini, 2015), which is particularly significant for developing countries (Moisé & Sorescu, 2013). Trade facilitation has a positive influence on time-sensitive goods, such as agricultural products and value-added chains (Martinez-Zarzoso & Márquez-Ramos, 2008; Djankov, Freund & Pham, 2010; Shepherd, 2013; Hoekman & Shepherd, 2015; Volpe, Carballo & Graziano, 2015). Trade facilitation helps to increase the diversification of developing countries' import and export markets (Shepherd, 2010; Dennis & Shepherd, 2011; Persson, 2013), especially for small and medium-sized enterprises (Fontagné, Mitaritonna & Signoret, 2016; Go, 2018).

Prior studies also show that different trade facilitation measures can differently influence trade flows. E. Moisé and S. Sorescu (2013) pointed out the fact that the most significant trade facilitation measures (i.e. those that had the biggest influence on trade volumes) were information availability, the harmonization and simplification of documents, automated processes, risk management, the streamlining of border procedures, and good governance and impartiality. One amongst the groups of the measures exerting the most significant influence on a reduction in trade costs are the measures intended to modernize border operations reducing the time a business needs at the border (World Bank, 2009; Moisé & Sorescu, 2013; Hillberry & Zhang, 2015; Nizeyimana & De Wulf, 2016).

Some authors have developed their trade facilitation metrics, such as the infrastructure index (Limao & Venables, 2001; Portugal-Perez & Wilson, 2012; Francois & Manchin, 2013), or they have conducted surveys, collected data to develop a set of indicators for port performance, the customs environment, the regulatory environment, and the use of e-commerce in APEC and in other countries (Wilson, Mann, & Otsuki, 2003; 2005a; 2005b). B. Layton (2007) put forward a scorecard for measuring trade facilitation in ASEAN in terms of the customs, logistics

performance, Single Window implementation, whereas other authors used scorecards to assess AEC integration (Findlay, 2009; Intal, 2015). The advantage of this method reflects in it being proactive in terms of data coverage by country and by time, but the same is limited with respect to the coverage of trade facilitation measures and the difficulty to regularly collect data in developing countries (Go, 2018).

While the ATF-SAP is a comprehensive trade facilitation strategic action plan, there has not been any scorecard measuring the ASEAN trade facilitation strategic measures and actions mentioned in the ATF-SAP. This also leads to a lack of studies on the influences of the ATF-SAP-related trade facilitation performance on ASEAN trade flows. Besides, many papers show that the improvement of trade facilitation performance unevenly influences bilateral trade with different partners. In the case of ASEAN member countries, how their intra- and extraregional trade flows differently benefit from different trade facilitation measures is also an interesting question to give an answer to.

TRADE AND TRADE FACILITATION PERFORMANCE IN ASEAN

Trade facilitation in ASEAN

The ASEAN Trade Facilitation Framework (ATFF) consolidates all the existing ASEAN obligations, commitments and instruments relating to trade facilitation. According to the ATFF, the scope of the ASEAN trade facilitation includes the four common areas and a few specialized areas. The four common areas include:

- the customs,
- trade rules and procedures transparency,
- standards and compliance, and
- the private sector participation.

Some specialized areas include the ASEAN Single Window (ASW), the ASEAN Customs Transit System

(ACTS), the ASEAN Trade Repository (ATR), the Self-Certification of the Origin in ASEAN, ASEAN Solutions to Investments, Services and Trade (ASSIST), and the Nontariff Barriers (NTBs) Reduction Initiatives. The contents of the ATFF were then concretized into the five strategic objectives and the 23 strategic actions and measures on trade facilitation in the ATF-SAP.

This paper builds a scorecard that combines the five ATF-SAP objectives and the OECD Trade Facilitation Indicators (OECD TFI) for measuring trade facilitation performance in ASEAN. The scorecard is constructed by the data extracted from the OECD TFI 2017 and 2019, which includes information on harmonization, the trade facilitation platform and modernization, easing NTBs, the private sector engagement, and institutional coordination and the engagement of the ASEAN member states (AMs). The scorecard may be updated every two years.

To create a scorecard, the seven sub-category indicators properly aligned with the five strategic objectives of the ATF-SAP were chosen from the OECD TFI database. As ASEAN put no priorities on any strategic objectives, the scorecard treats them equally using the average calculation when measuring the aggregate indicators for a single ASEAN member state or for ASEAN as a whole.

The harmonization indicator compatible with the strategic objective number 1 (S.O.1) of the ATF-SAP is measured by the sub-category indicator F from the OECD TFI. F refers to the simplification and harmonization of the document-related formalities. The trade facilitation platform and modernization match the strategic objective number 2 (S.O.2) and equal the average of the sub-category indicators G and H in the OECD TFI. G refers to the automation and digitalization of the formalities, whereas H refers to the streamlining border procedures. The strategic objective number 3 (S.O.3) relates to easing NTBs and is covered by the average of the sub-category indicators A and C in the OECD TFI, which refer to the information availability and advance rulings, respectively. The strategic objective number 4 (S.O.4) which has to do with the private sector

engagement well fitted the sub-category indicator B in the OECD TFI, which implies the involvement of and consultation with the trade community. The strategic objective number 5 (S.O.5) of institutional coordination and AMSs engagement can be measured by the sub-category indicator J of border agency external cooperation in the OECD TFI.

As can be seen in Table 1, the ASEAN member states' trade facilitation performance in 2017 and 2019 shared the same picture. By country, Singapore, Thailand, Malaysia, Vietnam, and Brunei had higher average performance scores than ASEAN's average

performance score, while Laos, Myanmar, and Cambodia lagged behind. Singapore had always been the country with the highest performance scores in ASEAN and throughout the world as well. The key driver behind the success of Singapore's trade facilitation performance was the miracle TradeNet - the World's first nationwide trade documentation system launched in 1989. Singapore continued its trade facilitation improvement by launching the National Trade Platform in 2017, which comprises various value-added services for trade, such as financing trade. On the other hand, Laos and Myanmar were the two ASEAN member states with

Table 1 The scorecard of ASEAN trade facilitation performance

		2017											
	TFI	ATF-SAP	ASEAN	BRN	KHM	IND	LAO	MYS	MMR	PHL	SGP	THA	VNM
Average			1.22	1.27	0.95	1.19	0.66	1.45	0.66	1.14	1.92	1.55	1.44
Harmonization	F	S.O.1	1.10	1.50	0.63	1.13	0.22	1.63	0.44	1.00	1.89	1.75	1.11
Trade Facilitation Platform and Modernization	G, H	S.O.2	1.14	1.42	0.88	0.98	0.57	1.17	0.46	0.99	1.90	1.60	1.42
Easing NTBs	A, C	S.O.3	1.41	1.58	1.50	1.42	0.60	1.63	0.99	1.13	1.96	1.51	1.81
Private Sector Engagement	B	S.O.4	1.09	0.63	1.00	0.88	0.67	1.25	0.43	1.25	1.88	1.57	1.29
Institutional Coordination and AMSs Engagement	J	S.O.5	1.36	1.22	0.75	1.56	1.25	1.56	1.00	1.33	2.00	1.33	1.56
		2019											
Average	TFI	ATF-SAP	1.37	1.34	1.05	1.45	0.76	1.50	0.95	1.26	1.97	1.65	1.56
Harmonization	F	S.O.1	1.24	1.13	0.75	1.38	0.44	1.38	0.67	1.25	1.88	1.88	1.63
Trade Facilitation Platform and Modernization	G, H	S.O.2	1.29	1.58	0.89	1.28	0.82	1.35	0.46	1.00	2.00	1.82	1.39
Easing NTBs	A, C	S.O.3	1.45	1.63	1.55	1.46	0.72	1.65	1.09	1.15	1.96	1.51	1.79
Private Sector Engagement	B	S.O.4	1.46	1.13	1.33	1.57	0.57	1.57	0.75	1.57	2.00	1.71	1.43
Institutional Coordination and AMSs Engagement	J	S.O.5	1.40	1.22	0.75	1.56	1.25	1.56	1.78	1.33	2.00	1.33	1.56

Note: BRN (Brunei); KHM (Cambodia); LAO (Laos); IND (Indonesia); MYS (Malaysia); MMR (Myanmar); PHL (Philippines); SGP (Singapore); THL (Thailand); VNM (Vietnam)

Source: Authors

the lowest trade facilitation scores. Both countries demonstrated the lowest harmonization score due to their poor compliance with international standards and the long time needed for preparing import and export documents.

In terms of the trade facilitation indicators, the NTB easing indicator and the indicators of institutional coordination and ASEAN member states’ engagement show the highest enforcement scores both in 2017 and in 2019. The reason for that lies in ASEAN’s establishment of the mechanisms and institutions to ensure the effective implementation of trade facilitation principles and ongoing reform commitments. The member states have their national legislative frameworks and/or institutional arrangements for cross-border trade regulator cooperation within the region, especially agreements to facilitate transit, including cooperation between the involved agencies as well. As a result, the member states have access to the necessary information and they also have the opportunities to discuss amendments to the laws and regulations of the other member countries as well. On the contrary, the indicators such as harmonization, the trade facilitation platform, and modernization

noticeably improved the scores from 2017 to 2019, with an increase of 0.14 and 0.15 points, respectively. ASEAN have modernized their border-crossing trade procedure system, which focuses on speeding up the customs procedures handling process, especially through the modern IT infrastructure and the ASW. ASEAN, however, is still experiencing a big gap in the performance capacity between its member states. The private sector engagement indicator had a remarkable increase by 0.35 points in the period from 2017 to 2019, as the ASEAN member states had developed the mechanism of public consultations between traders, other interested parties and the governments.

Trade in ASEAN

In the period from 2000 to 2019 (Figure 1), ASEAN trade in goods increased approximately 3.5 times. ASEAN’s total trade volume in the year 2019 reached USD 2,802 billion, with a fairly balanced proportion of exports and imports. The export volume reached USD 1,418 billion, while the import volume was USD 1,384 billion. The ASEAN total trade volume significantly fluctuated from 2000 to 2019. It was experiencing strong growth in the period from 2000 to 2007, then

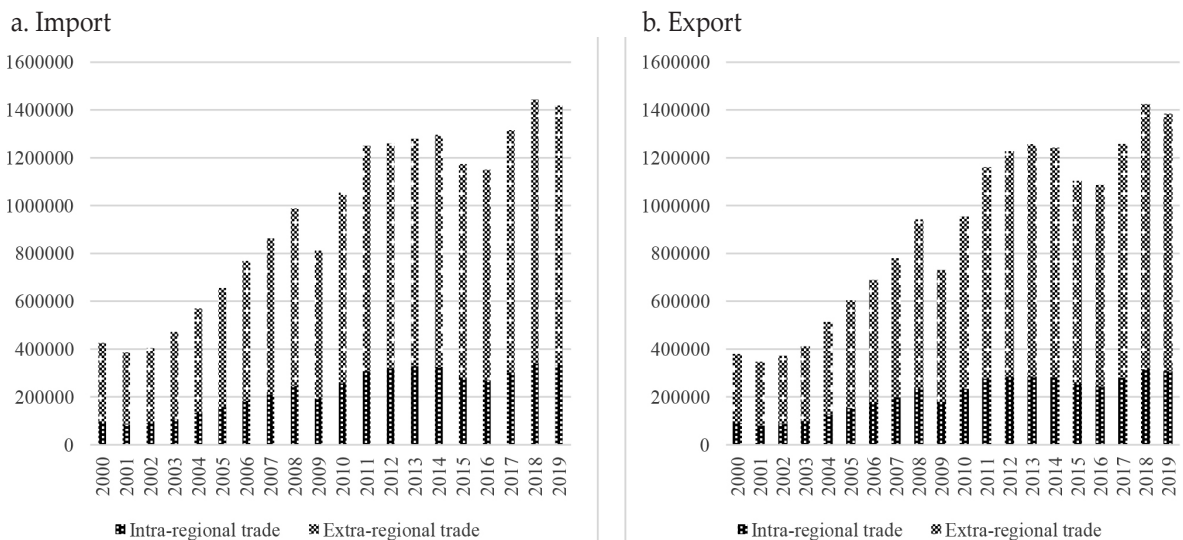


Figure 1 The ASEAN trade volume in the period from 2000 to 2019

Source: Authors

came a sharp decrease in the period from 2008 to 2010, due to the influence of the global financial crisis. After recovering and accelerating since 2011, ASEAN's total trade volume continued to decline in the period from 2014 to 2016, as a result of the cyclical recession in trade and the global economy. Trade flourished again in 2017, when the developed economies started to recover. In 2018, however, trade tensions exacerbated global uncertainties and hampered global economic growth, causing a decline in the trade volume in 2019.

Extraregional trade made up a dominant share in ASEAN total trade and became the main channel for transmitting the world economy's upheavals to the ASEAN economy. Conversely, ASEAN intraregional trade share witnessed no significant improvement during the period from 2010 to 2019, not even so after the milestone of the establishment of the AEC in the year 2015 (Figure 2). The share of ASEAN intraregional exports and imports in 2019 were merely 23.52% and 22.38%, respectively, namely significantly lower than those of the ASEAN+3 region (35.89% and 42.92%, respectively) and APEC (69.13% and 69%, respectively) in the same period.

According to the AEC Blueprint, ASEAN will strive for intraregional trade to double from 2017 through

2025. As the intra-ASEAN trade volume of 2017 reached more than USD 583 billion, according to the AEC's target, the annual growth rate of intraregional trade in the period from 2017 to 2025 will have to reach 7.8%. The average ASEAN trade growth rate in the period from 2017 to 2019 was only 6.6%. Therefore, ASEAN have to make more efforts to promote regional economic integration for further boosting intraregional trade. Implementing trade facilitation is not only meaningful for intraregional trade, but it is also meaningful for ensuring the imports of intermediate goods, which is significant for the production expansion in the ASEAN member countries. The influence of trade facilitation on ASEAN intraregional and extraregional trade is measured in the following section of the paper.

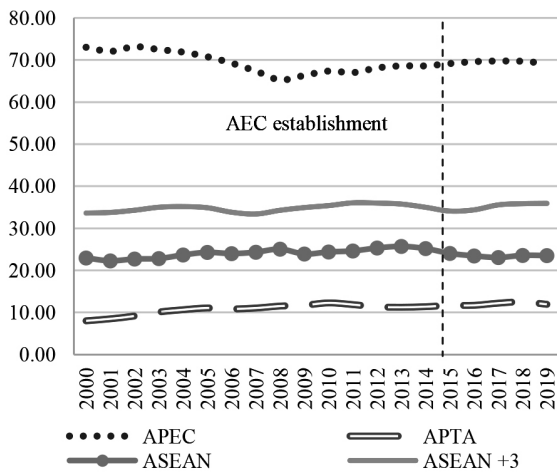
METHODOLOGY AND DATA

To begin with, the standard gravity model reads as follows:

$$\text{Trade} = X\beta + z\gamma + \varepsilon \tag{1}$$

In equation (1), X contains the traditional gravity variables, such as the GDP, the bilateral distance

a. The share of intraregional imports



b. The share of intraregional exports

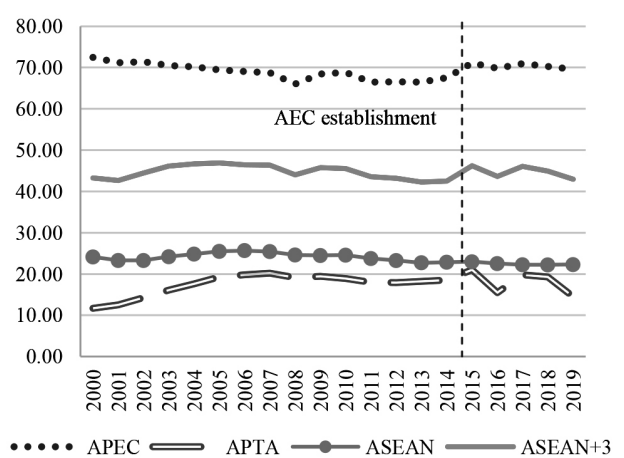


Figure 2 The share of intraregional imports and export in some regions in Asia-Pacific (%)

Source: Authors

between exporters and importers, while z refers to the numerous influencing factors, such as the common language, the common border, and trade facilitation. Then, the equation (1) is so customized as to quantify the influence of trade facilitation on ASEAN trade flows as follows:

$$\begin{aligned} Trade_{ij}^t = & a_{ij} + a_1 \ln DIST + a_2 contig + a_3 COMLANG_{ETHNO} \\ & + a_4 colony + a_5 comcol + a_6 \ln GDP_i + a_7 \ln GDP_j \\ & + a_8 \ln TF_j + a_9 \ln REM_IMP + a_{10} \ln REM_EXP \\ & + e_{ij}^t \end{aligned} \quad (2)$$

where i denotes ten AMSs and j denotes the 88 trading partners of the AMSs; t implies the years from 2017 to 2019; $e_{ij,t}$ is an error term, and $Trade_{ij,t}$ denotes the trade volume of the country (i) with the country (j) in the year (t); GDP_i^t and GDP_j^t describe the gross domestic product (GDP) of the country (i) and the country (j) in the year t , respectively. $COMLANG_{ETHNO}$ is the dummy variable that is set to 1 if two countries have a language spoken by at least 9% of the population in both countries. $Contig$ and $comcol$ are the dummy variables in the case when two countries are contiguous and in colonial relations, respectively. $DIST$ refers to the bilateral distances between the biggest cities of those two countries. TF_i is the trade facilitation variable that measures the AMS's average trade facilitation performance in Table 1.

After estimating the equation (2) with the TFi variable, we continue with the component indicators Ham, Pla, Eas, Pri, and Ins, which are each AMS's Harmonization Indicator, the Trade Facilitation Platform and Modernization Indicator, the NTB Easing Indicator, the Private Sector Engagement Indicator, the Institutional Coordination Indicator, and the AMS Engagement Indicator in the five different gravity estimations. Except for the dummy variables, all the other variables used are a natural logarithmic scale.

The gravity model serves as a broadly used empirical piece of equipment for assessing the influences of the factors exerting an influence on the bilateral trade flows. Nevertheless, the gravity estimation faces challenges of the unobserved and nondiscrimination trade policy variables. The former comes from the fact that multilateral resistances are hardly observed

by researchers or policymakers (Piermartini & Yotov, 2016). The solution proposed by J. E. Anderson and E. Van Wincoop (2003) for this challenge which implies using iterative custom programming is simplified to the reduced form of the custom treatment, in which multilateral resistance (MR) terms are measured by the remoteness indices (Baier & Berstrand, 2007) as in the following equations:

$$REM_EXP_{i,t} = \left(\sum_j DIST_{ij} / \frac{Y_{j,t}}{Y_t} \right) \quad (3)$$

$$REM_IMP_{j,t} = \left(\sum_j DIST_{ij} / \frac{Y_{i,t}}{Y_t} \right) \quad (4)$$

$REM_EXP_{i,t}$ and $REM_IMP_{j,t}$ are the new covariates on the exporter's side and on the importer's side, respectively. $REM_EXP_{i,t}$ equals the importer j 's output-weighted averages of the bilateral distance, whereas $REM_IMP_{j,t}$ equals the exporter i 's output-weighted averages of the bilateral distance. Although $REM_EXP_{i,t}$ and $REM_IMP_{j,t}$ have insignificant influences on gravity estimation results (Anderson & Van Wincoop, 2003), they are still used in empirical research (Rahman, 2003; Kepaptsoglou, Karlaftis, & Tsamboulas, 2010; Felipe & Kumar, 2012) because these variables help to identify the effects related to the nondiscriminatory trade facilitation policies on the importer's side (Piermartini & Yotov, 2016). Therefore, expanding the equation (2) by adding the $REM_EXP_{i,t}$ and $REM_IMP_{j,t}$ variables will solve the two challenges of the unobserved and nondiscrimination trade policy variables.

Poisson Pseudo Maximum Likelihood (PPML) estimation is used in the paper to solve the challenges in estimating the influence of trade facilitation on the ASEAN trade flows related to a zero-trade flow, variance change (Silva & Tenreiro, 2006).

In terms of the data, the GDP and the trade volume were obtained from the UNCTADstat database. All the data are expressed in the US dollars. The data on the distance, the language, and the border employed within this research study are drawn from the website of the Centre d'Etudes Prospectives et d'Informations

Internationales (CEPII). The scorecards that track the AMS trade facilitation performance are extracted from the OECD Trade Facilitation Indicators (TFIs) from 2017 to 2019.

EMPIRICAL SPECIFICATIONS AND RESULTS

Table 2 shows the results of the estimates of the equation (2) using the PPML estimation in the AMS trade relations with 88 countries. Except for the comcol variables that are not statistically significant, the model's estimated results are consistent with the expectation. Column 1 shows the results of the estimated gravity model with the aggregated trade facilitation variable TFi (the average score of trade facilitation performance among the AMSs). The size of the trading partners' economies positively affects ASEAN trade flows, the ASEAN partners' GDP having a greater positive influence on the trade flows and being statistically significant as compared to the AMSs' GDP. Conversely, the relative distance is statistically significant, but has a small positive effect on ASEAN's trade flows.

The countries with the common border (contig) trade more than the countries that do not share the border. This reflects the nature of the ASEAN's regional value chains, where the intermediate inputs imported from East Asia - the countries with relatively close physical distances - account for a big proportion.

Aggregated trade facilitation performance (TFi) is the factor that exerts the biggest influence on ASEAN trade flows. When the AMSs reform their trade facilitation measures according to the ATF-SAP so as to increase trade facilitation performance by 1%, the ASEAN trade volume will grow by over USD 0.11 billion. When trade facilitation performance is disaggregated into the five indicators, different influences on the ASEAN trade flows are shown in columns 2, 3, 4, 5 and 6. The improvement of Easing NTBs (Eas) boosts the ASEAN trade flows most significantly among all the five indicators. A percentage increase in the Easing NTBs score will

make the ASEAN trade flows increase by USD 0.17 billion. Institutional Coordination and AMSs Engagement (Ins) show the second biggest influence, with an increase of USD 0.12 billion in the trade flow. The one-percent-improvement gains of the trade flow achieved in the Harmonization, Trade Facilitation Platform and Modernization, and Private Sector Engagement indicators are approximately 0.077, 0.072, and 0.051 billion American dollars, respectively.

The elasticity of the ASEAN intraregional trade flows to the trade facilitation reforms is smaller than that of ASEAN trade with 88 global partners at both aggregated and disaggregated levels. Intraregional trade flows go up by USD 0.077 billion when the aggregated TFi scores increase by 1% (Table 3, Column 7). TFi is still the determinant with the strongest effect on ASEAN intraregional trade flows. At the disaggregated level, the results of the equation (II) PPML estimation significantly diversify in terms of the influences exerted by the trade facilitation reforms on intraregional trade flows. Intraregional trade increases by one billion American dollars in response to one additional percent gain in Easing NTBs performance. This finding is similar to the suggestion made by E. Moisé and S. Sorescu (2013), according to whom the influence of the available information about the worldwide export of low- and middle-income countries is stronger than the influences exerted by many other TFI areas. Information availability and advance rulings affect the fixed cost component of trade, which becomes one of the trade facilitation areas that most consistently influence the small firms' export volume (Fontagné *et al*, 2016). Besides, Institutional Coordination and AMSs Engagement exert the second-biggest influence on the ASEAN intraregional trade flow when the improvement of this indicator by one percent brings an additional growth of 0.08 billion American dollars of ASEAN intraregional trade, strongly confirming the role of cooperation in the trade facilitation framework inside ASEAN. Although the Trade Facilitation Platform and Modernization, and Private Sector Engagement are the two areas with the smallest influence on ASEAN intraregional trade flows, their positive and significant coefficients properly fit in with the other authors' findings on the role of automation in trade

Table 2 The experimental results of the AMSs and 88 partners

	1	2	3	4	5	6
	Trade	Trade	Trade	Trade	Trade	Trade
ln_DIST	-0.170* (-2.01)	-0.170* (-2.01)	-0.173* (-2.06)	-0.181* (-2.17)	-0.188* (-2.22)	-0.176* (-2.05)
contig	0.521** (2.91)	0.531** (2.88)	0.534** (3.07)	0.502** (2.95)	0.502** (2.89)	0.438* (2.31)
comlang_ethno	0.463** (3.08)	0.471** (3.18)	0.484*** (3.36)	0.559*** (4.07)	0.579*** (4.19)	0.414** (2.75)
comcol	0.202 (0.93)	0.210 (0.97)	0.229 (1.07)	0.192 (0.89)	0.290 (1.38)	0.173 (0.82)
ln_GDPi	0.497*** (8.49)	0.507*** (8.74)	0.528*** (9.54)	0.451*** (8.17)	0.480*** (8.01)	0.622*** (9.06)
ln_GDPj	0.767*** (25.02)	0.767*** (25.00)	0.769*** (25.28)	0.767*** (25.78)	0.774*** (25.18)	0.769*** (25.56)
ln_TFi	1.118*** (5.26)					
ln_Ham		0.769*** (5.6)				
ln_Pla			0.752*** (5.4)			
ln_Eas				1.658*** (7.26)		
ln_Pri					0.511*** (3.38)	
ln_Ins						1.185*** (6.88)
Ln_REM_EXP	-0.000000235*** (-6.34)	-0.000000234*** (-6.32)	-0.000000232*** (-6.30)	-0.000000230*** (-6.36)	-0.000000228*** (-5.99)	-0.000000234*** (-6.24)
Ln_REM_IMP	0.000000000547*** (2.03)	0.000000000342*** (1.20)	0.000000000441*** (1.62)	0.000000000960*** (3.84)	0.000000000765*** (2.95)	0.000000000803*** (3.05)
_cons	0.446 (0.46)	0.568 (0.59)	0.252 (0.27)	0.625 (0.67)	0.795 (0.83)	-1.205 (-1.11)
N	1780	1780	1780	1780	1780	1780

t statistics in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Authors

costs prediction (Hillberry & Zhang, 2015) and trade flows prediction (Moisé & Sorescu, 2013), in which single windows strongly lead to an increase in trade flows (Sá Porto *et al.*, 2015).

CONCLUSIONS

The scorecard that combines the ATF-SAP objectives and the TFI of the AMSs has given a general picture of ASEAN trade facilitation performance. There

is significant differentiation in trade facilitation performance among the AMSs, in which Singapore, Thailand, Malaysia, Vietnam, and Brunei have higher performance scores, whereas Laos, Myanmar, and Cambodia still lag behind. Among the ATF-SAP's action lines, the NTB Easing and Institutional Coordination and the AMS Engagement indicators are always the groups with the highest enforcement scores. Nevertheless, those indicators did not see much improvement in the period from 2017 to 2019, whereas the Harmonization and Trade Facilitation

Table 3 The experimental results of ASEAN intraregional trade

	7 trade	8 trade	9 trade	10 trade	11 trade	12 trade
ln_DIST	-0.345* (-1.89)	-0.366* (-2.18)	-0.355* (-2.17)	-0.370* (-2.16)	-0.410* (-2.50)	-0.334* (-1.82)
contig	0.0834 (0.28)	0.0953 (0.33)	0.0447 (0.16)	0.0270 (0.09)	-0.0296 (-0.10)	0.0691 (0.22)
comlang_ethno	0.578** (2.03)	0.569** (2.68)	0.583** (2.69)	0.566** (2.63)	0.603** (2.83)	0.607** (2.81)
comcol	0.738* (2.03)	0.715 (1.92)	0.759* (2.09)	0.774* (2.17)	0.813* (2.35)	0.677 (1.90)
ln_GDPi	0.552*** (5.01)	0.557*** (5.01)	0.524*** (4.81)	0.578*** (5.42)	0.533*** (4.98)	0.6.21*** (5.17)
ln_GDPj	0.716*** (10.10)	0.712*** (10.04)	0.721*** (9.99)	0.721*** (10.17)	0.726*** (10.37)	0.6.97*** (9.92)
ln_TFi	0.765*** (3.49)					
ln_Ham		0.548*** (3.95)				
ln_Pla			0.492*** (3.55)			
ln_Eas				1.049*** (4.5)		
ln_Pri					0.432*** (2.97)	
ln_Ins						0.789*** (3.84)
REM_EXP	-0.000000753*** (-3.49)	-0.000000732*** (-3.40)	-0.000000733*** (-3.26)	-0.000000744*** (-3.42)	-0.000000773*** (-3.40)	-0.000000683*** (-3.18)
REM_IMP	0.0000000703* (2.30)	0.0000000684* (2.27)	0.0000000793** (2.77)	0.0000000715* (2.32)	0.0000000823** (2.86)	0.0000000749* (2.44)
_cons	2.799 (1.04)	3.075 (1.14)	2.903 (1.09)	2.739 (1.01)	3.494 (1.35)	1.949 (0.68)
N	180	180	180	180	180	180

t statistics in parentheses * p<0.05, ** p<0.01, *** p<0.001

Source: Authors

Platform and Modernization indicators experienced the strongest reforms. The scorecard created from this research study can be updated and utilized further in other research studies dealing with ASEAN trade facilitation.

The gravity model's results confirm all the hypotheses of this paper. Firstly, aggregated trade facilitation performance apparently has positive influences on ASEAN trade flows. Secondly, different trade facilitation indicators have uneven influences on ASEAN trade flows. The NTB Easing and Institutional Coordination and AMS Engagement

indicators are also the most influential factors when their influence on ASEAN trade flows, especially ASEAN extraregional trade, is concerned. The Trade Facilitation Platform and Modernization, and the Private Sector Engagement indicators demonstrate modest influences. Thirdly, the influence of trade facilitation reforms on intraregional trade flows is smaller than that of ASEAN extraregional trade at both aggregated and disaggregated levels.

These findings may put forward some recommendations for ASEAN in the trade facilitation reform priority setting process. The first priority

should be to continue further easing of NTBs that regulate the cross-border trade, high commitment to international institutional coordination. If a country chooses to invest in modernizing its cross-border trade management infrastructure and procedures instead of improving the other ATF-SAP's trade facilitation measures, its trade volume will benefit less. In addition, modernizing cross-border trade management procedures has not been fully implemented in many ASEAN countries, especially the measures intended to exchange electronic import and export documents and electronic applications, too. The SPS registration and certification come along with remarkable challenges, significant financial costs, and donors' technical assistance for implementation. Therefore, ASEAN member states have to carefully take into account both costs and benefits when making any decision on reforming these trade facilitation measures.

In order to be able to ensure a deep analysis of and good alignment with the content of the ATF-SAP, the research scope of the paper does not include the infrastructure, transportation, and logistics contents, thus simultaneously not including their influences on ASEAN trade flows, either. This could be extended in a future study of ours, since the performance of the infrastructure, transportation and logistics also plays a very important role in achieving the common goal of establishing a single ASEAN market and a single ASEAN production base. The one fact that should be taken into account is the Covid-19 pandemic, which has led to an abrupt break in international trade. Trade facilitation has strongly been affected by the pandemic, but it may also be an important factor boosting trade recovery from the pandemic. The priority of trade facilitation measures in the times of the pandemic can be different from the abovementioned suggestions since modernizing cross-border trade management procedures, especially electronic and digital applications, are expected to be proper solutions in the pandemic times. Therefore, a further study of digital trade facilitation is needed in the pandemic times.

ACKNOWLEDGMENTS

This research is funded by Vietnam National University, Hanoi (VNU), under the Project number QG.19.43 entitled "International Economic Integration of Vietnam: Trade and Investment Facilitation".

REFERENCES

- Anderson, J. E., & Van Wincoop, E. (2003). Gravity with gravitas: A solution to the border puzzle. *American economic review*, 93(1), 170-192. doi:10.1257/000282803321455214
- Baier, S. L., & Bergstrand, J. H. (2007). Do free trade agreements increase members' international trade? *Journal of International Economics*, 71(1), 72-95. doi.org/10.1016/j.jinteco.2006.02.005
- Dennis, A., & Shepherd, B. (2011). Trade facilitation and export diversification. *The World Economy*, 34(1), 101-122. doi.org/10.1111/j.1467-9701.2010.01303.x
- Djankov, S., Freund, C., & Pham, C. S. (2010). Trading on time. *The Review of Economics and Statistics*, 92(1), 166-173. doi/pdf/10.1162/rest.2009.11498
- Felipe, J., & Kumar, U. (2012). The role of trade facilitation in Central Asia: A gravity model. *Eastern European economics*, 50(4), 5-20. doi.org/10.2753/EEE0012-8775500401
- Findlay, C. (2009). Trade Facilitation in the ASEAN Economic Community. *Working Papers PB-2009-06*, Economic Research Institute for ASEAN and East Asia.
- Fontagné, L., Mitaritonna, C., & Signoret, J. (2016). Estimated tariff equivalents of services NTMs. *Working Papers No 2016-20*. CEPII research center.
- Francois, J., & Manchin, M. (2013). Institutions, infrastructure, and trade. *World Development*, 46(C), 165-175. doi:10.1016/j.worlddev.2013.02.009
- Go, E. (2018). Contribution and Effectiveness of Trade Facilitation Measure: A Structured Literature Review, World Bank Group, Washington, DC.
- Hillberry, R., & Zhang, X. (2015). Policy and performance in customs. *Policy Research Working Paper 7211*, World Bank Group, Washington, DC.

- Hoekman, B., & Shepherd, B. (2015). Who profits from trade facilitation initiatives? Implications for African countries. *Journal of African Trade*, 2(1-2), 51-70. doi.org/10.1016/j.joat.2015.08.001
- Intal, P. (2015). AEC blueprint implementation performance and challenges: Trade facilitation. *Working Papers DP-2015-41*, Economic Research Institute for ASEAN and East Asia (ERIA).
- Iwanow, T., & Kirkpatrick, C. (2009). Trade facilitation and manufactured exports: Is Africa different? *World Development*, 37(6), 1039-1050. doi.org/10.1016/j.worlddev.2008.09.014
- Kepaptsoglou, K., Karlaftis, M. G., & Tsamboulas, D. (2010). The gravity model specification for modeling international trade flows and free trade agreement effects: a 10-year review of empirical studies. *The open economics journal*, 3(1), 1-13. doi.org/10.2174/1874919401003010001
- Layton, B. (2007). Trade Facilitation: A study in the context of the ASEAN Economic Community Blueprint. In H. Soesastro, (Ed.). *Deepening Economic Integration - The ASEAN Economic Community and Beyond* (pp. 76-100). ERIA Research Project Report 2007, 1-2.
- Limao, N., & Venables, A. J. (2001). Infrastructure, geographical disadvantage, transport costs, and trade. *The world bank economic review*, 15(3), 451-479. doi:10.1093/wber/15.3.451
- Martinez-Zarzoso, I., & Márquez-Ramos, L., (2008). The effect of trade facilitation on sectoral trade. *Journal of Economic Analysis & Policy*, 8(1), 1-46. doi:10.2202/1935-1682.1927
- Moisé, E., & Sorescu, S. (2013). Trade facilitation indicators: The potential impact of trade facilitation on developing countries' trade. *OECD Trade Policy Working Papers No. 144*. doi.org/10.1787/5k4bw6kg6ws2-en
- Nizeyimana, C., & De Wulf, L. (2015). Rwanda electronic single window supports trade facilitation. *World Customs Journal*, 9(2), 73-84.
- Persson, M. (2013). Trade facilitation and the extensive margin. *The Journal of International Trade & Economic Development*, 22(5), 658-693. doi:10.1080/09638199.2011.587019
- Piermartini, R., & Yotov, Y. (2016). Estimating trade policy effects with structural gravity. *WTO Staff Working Paper, No. ERSD-2016-10*, World Trade Organization, Geneva.
- Portugal-Perez, A., & Wilson, J. S. (2012). Export performance and trade facilitation reform: Hard and soft infrastructure. *World Development*, 40(7), 1295-1307. doi:10.1016/j.worlddev.2011.12.002
- Rahman, M. M. (2003, September). *A panel data analysis of Bangladesh's trade: the gravity model approach*. Paper presented at the 5th Annual Conference of the European Trade Study Group (ETSG2003), Madrid, ES.
- Sá Porto, P. C. D., Canuto, O., & Morini, C. (2015). The impacts of trade facilitation measures on international trade flows. *Policy Research Working Paper; No. 7367*. World Bank, Washington, DC.
- Shepherd, B. (2010). Trade Costs and Facilitation in APEC and ASEAN: Delivering the Goods? *MPRA Paper No. 21531*, University Library of Munich, Germany.
- Shepherd, B. (2013). Trade times, importing and exporting: firm-level evidence. *Applied Economics Letters*, 20(9), 879-883. doi.org/10.1080/13504851.2012.756574
- Silva, J. S., & Tenreyro, S. (2006). The log of gravity. *The Review of Economics and Statistics*, 88(4), 641-658. doi.org/10.1162/rest.88.4.641
- Tinbergen, J. (1963). Shaping the world economy. *The International Executive*, 5(1), 27-30. doi.org/10.1002/tie.5060050113
- Volpe, M. C., Carballo, J., & Graziano, A. (2015). Customs. *Journal of International Economics*, 96(1), 119-137. doi.org/10.1016/j.jinteco.2015.01.011
- Wilson, J. S., Mann, C. L., & Otsuki, T. (2003). Trade facilitation and economic development: A new approach to quantifying the impact. *The World Bank Economic Review*, 17(3), 367-389. doi.org/10.1093/wber/lhg027
- Wilson, J. S., Mann, C. L., & Otsuki, T. (2005a). Assessing the benefits of trade facilitation: A global perspective. *World Economy*, 28(6), 841-871. doi.org/10.1111/j.1467-9701.2005.00709.x
- Wilson, J. S., Mann, C. L., & Otsuki, T. (2005b). Assessing the potential benefit of trade facilitation: A global perspective. In P. Dee & M. Ferrantino (Eds.). *Quantitative methods for assessing the effects of non-tariff measures and trade facilitation* (pp. 121-160). World Scientific Publishing Co. Pte. Ltd.
- World Bank. (2009). *Doing Business 2010: Reforming through Difficult Times*. Washington, DC: The World Bank.

Received on 6th May 2021,
after revision,
accepted for publication on 25th November 2021
Published online on 6th December 2021

Anh Thu Nguyen, gained her Ph.D. in Economics at Yokohama National University, Japan, in 2009. She specialized in International Development. Presently, she is the Vice Rector of the University of Economics and Business of Vietnam National University, Hanoi, and the Director of the Vietnam Institute for Economic and Policy Research (VEPR). The key research areas she is dedicated to are international economic integration and green growth.

Thi Mai Thanh Tran is a researcher at the Vietnam Institute of Economics of the Vietnam Academy of Social Sciences. Her research is focused on the international economic integration of Vietnam and ASEAN.

UTICAJI PERFORMANSI TRGOVINSKIH OLAKŠICA NA TRGOVINSKE TOKOVE U ASOCIJACIJI NACIJA JUGOISTOČNE AZIJE

Anh Thu Nguyen¹ i Thi Mai Thanh Tran²

¹*Vietnam National University, University of Business and Economics, Hanoi, Vietnam*

²*Vietnam Accademy of Social Sciences, Vietnam Institute of Economics, Hanoi, Vietnam*

Asocijacija nacija jugoistočne Azije (ASEAN) smatra da su trgovinske olakšice pokretačka sila koja vodi ka formiranju jednog tržišta i jedne proizvodne baze. U ovom radu se konstruiše pokazatelj uspešnosti Asocijacije nacija jugoistočne Azije za merenje performansi strateških planova trgovinskih olakšica koje sprovode države članice Asocijacije. U radu se dalje koristi strukturni gravitacioni model u cilju procene uticaja performansi trgovinskih olakšica na trgovinske tokove u Asocijaciji. Konstatuje se da se pokazatelj ublažavanja netarifnih prepreka (NTM) i institucionalne koordinacije, s jedne strane, i pokazatelj uključenosti država članica Asocijacije, s druge, najuspešnije ostvaruju u Asocijaciji u periodu 2017-2019. Ta dva pokazatelja, takođe, imaju najjači uticaj na trgovinske tokove u Asocijaciji, posebno kada se radi o vanregionalnoj trgovini država članica Asocijacije.

Ključne reči: ASEAN, trgovinske olakšice, trgovinski tokovi

JEL Classification: F100, F140, F150

Review paper

UDC: 005.35(669.1)
doi:10.5937/ekonhor21032890

THE RELATIONSHIP BETWEEN THE CORPORATE SOCIAL RESPONSIBILITY AND THE COST OF THE CAPITAL OF THE COMPANIES LISTED ON THE NIGERIAN STOCK EXCHANGE

Nyore Sandra Ofogbe*, Chidiebere Nnamani, Chika Anastesia Anisiuba and Charity Nkeiru Ezuwore-Obodoekwe

University of Nigeria, Faculty of Business Administration, Accountancy Department, Nsukka, Nigeria

This study is aimed at analyzing the influence of Corporate Social Responsibility (CSR) on the Cost of the Capital (CoC) of the companies quoted on the Nigerian Stock Exchange (NSE). The annual panel data of the 32 companies quoted on the NSE pertaining to the period from 2005 to 2019, were judgmentally selected. The Thomson Reuters Index was used as the measure for CSR, whereas the Cost of Equity (CoE) and the Cost of Debt (CoD) were used as the measure for CoC. The findings revealed the existence of a positive/negative nonsignificant relationship, on the one hand, and a positive/negative significant relationship as well, on the other, between CSR and CoC. The results obtained are supportive of the findings found in scholars' works, especially those in the developed countries in which this aspect has extensively been explored. To conclude, the companies that spend on CSR have a better chance of accessing capital at a better and low cost. Based absolutely on the findings, the researcher advocates that investment should incessantly be made in the issues concerning CSR, given the fact that, if consistently made, such investment may ease access to funds at a reduced cost.

Keywords: corporate social responsibility, cost of capital, Thomson Reuters Index, cost of equity, cost of debt

JEL Classification: M1, M4

INTRODUCTION

Corporate Social Responsibility (CSR) has globally turned out to be exceptionally essential. The same has been supported by an increasing number of the

academic papers that highlight practical reasons for firms to integrate CSR in their practices (Joëla, 2017; Youngkyung & Jungmu, 2019; Chin-Chen, Fengyi, Teng-Shih, & Chia-Ming, 2020). In their paper, S. M. Barbara and F. I. Maria (2017) stipulated the fact that a growing range of companies had been paying attention to corporate responsibility issues. CSR depicts companies' capacity to be socially responsible

* Correspondence to: N. S. Ofogbe, University of Nigeria, Faculty of Business Administration, Accountancy Department, Nsukka, Nigeria, e-mail: Sandy4pg@gmail.com

for social growth and development. It demonstrates the activities that communicate business obligations to all constituent stakeholders (Votaw, 1973). The interesting question is, why, of their own accord, do some firms spend their scarce resources on social goals while others do not?

There are several factors that motivate companies to report on CSR. As reported by Ernst & Young (2013), companies see improved reputation as the most valuable contribution made to them by CSR. A. Ansong, S. K. Agyei and E. Marfo-Yiadom (2017); M. Moskowitz, 1972; and O. Hawn, A. Chatterji and W. Mitchell (2011), accordingly opined the factors including gaining social legitimacy and goodwill, attracting and maintaining high-quality employees, and allowing for the healthier marketing of products and services. A. Goss and G. S. Roberts (2011); K. M. Menz (2010) and B. Cheng, I. Ioannou and G. Serafeim (2014), however, advocate that investing in corporate social initiatives increase access to external financing, such as bank loans, a debt and equity issues.

To some extent, CSR is connected with CoC alongside the investor's decision on funds allocation. As opined by P. M. Healy and K. G. Palepu (2001), more disclosure findings might provide additional facts and consequently decrease the information irregularity dilemma, knowing fully well that without an adequate piece of information, investors will find it tough to differentiate between good and bad investments. Introducing CSR disclosure would align the interest of the parties' concern and create incentives for CSR disclosure.

The Cost of Capital (CoC) is the cost of the company's funds, both the debt and the equity. CoC is the company financing costs when borrowing money, using equity financing or selling bonds in order to fund projects or investments. In particular, companies' cost of capital can reflect CSR risks and benefits (Weber, 2008). For example, firms might benefit from lower interest rates (Goss & Roberts, 2011) and higher access to debt capital through CSR (Cheng, Ioannou & Serafeim, 2014).

There is a well-established fact that investors in the public debt are more sensitive to and more concerned

about agency costs and the asymmetric information problem than private debt investors, such as banks (Leland & Pyle, 1977; Krishnaswami, Spindt & Subramaniam, 1999; Denis & Mihov, 2003). The presence of these two frictions could thus essentially limit a firm's access to the public debt market. Consequently, firms may have to rely on relatively more costly bank debt financing.

This study primarily investigates the effect of CSR performance on CoC by obtaining evidence from a cross-section of the companies quoted on the Nigerian Stock Exchange.

Bearing in mind the goal of the study, the study itself ascertains whether performing CSR has in any way led to easy access to capital at a reduced cost among the companies quoted on the NSE. The study is empirically oriented and employs quantitative methods, such as the descriptive method, correlation, the unit root test, the random effect model and diagnostic tests.

Beside the introduction, the rest of the paper is structured as follows: in the next section, the problem statement is presented and testable hypotheses are developed; this is followed by a related literature review pertaining to the subject matter of the study and the method applied in the study as well. Finally, the analysis, discussion, the conclusions, and the recommendations are presented.

Problem statement

In the past years, CSR has turned out to be the most crucial subject issue in doing business. The argument over the intrinsic value of CSR revolves around if such investments are value-enhancing or if they are the value-destroying manifestation of agency conflicts (Allen & Gordon, 2011). The quest for social responsibility helps organizations to create values, be accountable to stakeholders at large and gain performance.

Accordingly, society tends to be in an advantaged position in relation to the firms that act in a socially responsible manner in comparison with their

counterparts. It is therefore imperative for firms to channel their societal performance, which may usually be done through the disclosure of the CSR information which will ultimately be beneficial to all (Dhaliwal, Li, Tsang & Yang, 2011). The information disclosed must be useful, timely, and not too costly to collect (Dubbink, Graafland & Van Liedekerke, 2008). Regrettably, CSR implementation is more complicated to perform than to explain. The reason for that lies in the fact that a company's interests and culture differ (that is, humanistic vs profit maximization), and a probable difference in interest between managers and shareholders varies, too (Banerjee, 2008).

Humanistic corporations generally tend to behave in a socially responsible manner (Smith, 2003; Lee, 2008; Walker & Wan, 2012), while profit-maximizing firms seek their interest not minding whether it is at the expense of anyone else or not (Dugger, 1989; Basu & Palazzo, 2008; Menz, 2010).

Despite the growing body of the extant studies on CSR among companies in Nigeria, a good number of the studies were dedicated to the relationship between CSR and the Financial Performance (FP) of the corporations listed on the NSE (Agbiogwu, Ihendinihu & Okafor, 2016; Wekesa, 2017; Abdulaziz, 2018; Odunayo & Ibidolapo, 2018; Stephen & Rebecca, 2018; Ehioghiren & Eneh, 2019). This study refers to a well-known debate from an innovative point of view: CSR and CoC. The relationship between CSR and CoC has not yet been investigated a lot in Nigeria. In addition to that, the largest number of the studies on the concept of CSR that have sprouted in Nigeria's companies are focused on CSR and its effect on FP. These studies test the correlation between CSR and FP, simultaneously neglecting the point of view concerning CSR and CoC.

Besides, the biggest number of the studies used the amount disclosed in a financial statement, in questionnaires and a few in the KLD index as the measure for CSR (Ajide & Aderemi, 2014; Joseph & Michah, 2016, Odunayo & Ibidolapo, 2018). This study investigates the relationship between CSR and the CoC of the companies listed on the NSE using the Thomson Reuther Index. It specifically examines the

correlation between CSR and CoE, CoD. There is a dearth of papers in the literature on this aspect. This is the reason why the focal point here is to explore the effect CSR has on the cost of capital (CoC) and the costs of debt (CoD) amongst Nigerian companies. This is necessary because the result of the research, if positive, may motivate other companies not in compliance with CSR to adopt CSR as a part of their business operations.

In light of the above-mentioned, the study:

- examines whether CSR performance by the companies listed on the NSE included in the sample has in any way led to easy access to the cost of equity at a reduced cost, and
- ascertains whether CSR performance by the companies listed on the NSE and included in this sample has led to easy access to the cost of debt at a reduced cost.

Bearing in mind the foregoing, the following is hypothesized.

- H1: Corporate social responsibility correlates with the cost of equity of the companies quoted on the Nigerian Stock Exchange.
- H2: Corporate social responsibility correlates with the cost of debt of the companies quoted on the Nigerian Stock Exchange.

LITERATURE REVIEW

Corporate social responsibility and the cost of equity

The empirical findings revealed the fact that the companies that had disclosed CSR had better and quicker access to new capital, and also faced fewer costs. Companies showed their probable shareholders that they were competitive and lowered the menace of investment by reporting on CSR (Cheng, Ioannou & Serafeim, 2014). They argued that the extent to which CSR is present could lessen CoE capital

for companies. This is also owing to their better commitment to and their engagement with the stakeholders based on mutual trust and cooperation (Jones, 1995). CSR adoption makes stakeholders feel stronger self-assurance and trust in companies. It makes them see the companies as the subject sharing the same common belief with them, and agency costs are reduced. In another study, W. Dhaliwal *et al* (2011) revealed that investors were most likely to invest in a more transparent company. With reliance on increased trust in suchlike companies, investors were more prone to lessen CoE capital.

Corporate social responsibility and cost of debt

More to the point, increased CSR decreases CoD. Studies conducted in the past also revealed the fact that, in the long run, performing CSR could result in a reduction in CoD. An example is a survey carried out by A. Goss and G. S. Robert (2011). Their study suggests that CSR statistically significantly lowers 7 to 18 basis points on bank loans.

In yet another study, S. Drucker and M. Puri (2009) established the fact that loans had an additional and preventive debt agreement, mainly when agency costs and information asymmetry were stricter. In prior studies, CSR has been seen to lower information asymmetry and trust (Dhaliwal *et al*, 2011; Cheng *et al*, 2014). Debt holders are exposed to a smaller threat when lending in the case when businesses undertake CSR, and they will be more liable to lend and ask for lower interest. Therefore, CSR is deemed to be able to decrease CoD. C. Demiroglu and C. M. James (2010) stipulate that the borrowers who take more risk are more prone to obtain loans with a tight agreement. S. Chava (2014) discovered that lenders charged smaller interest on bank loans to the organizations that derived significant revenue from environmentally beneficial products.

N. Attig, S. El Ghouli, O. Guedhami and J. Suh (2013) revealed the fact that CSR had a significant positive impact on a firm's credit rating. Companies proven to be highly socially performing are rewarded with high credit ratings by rating agencies. Accordingly,

CSR communicates the vital nonfinancial information which credit rating agencies use in evaluating companies. A. Goss and G. S. Roberts (2011) stipulate that with healthier credit ratings, companies can make a debt at a lower cost owing to the trust these agencies have in their operations. By implication, companies tend to engage themselves in the projects that will provide a social benefit to those concerned. Accordingly, when companies operate in a way which is perceived as socially desirable by the stakeholders, they will be able to receive high credit ratings, which may result in a lowered CoD in the long run.

Yet another study, namely K. M. Menz (2010), established the fact that CSR lowered CoD. It was, however, revealed that socially responsible companies received lower risk premiums. The one reason for this could be the fact that credit ratings mattered more to bond investors than CSR ratings did. His results revealed a non-positive correlation between CSR and CoD. Nevertheless, the result demonstrates that high credit ratings add value to companies' CoD to some extents.

Theoretical Framework

M. Friedman (1962) upholds that shareholder theory emphasizes a firm's top priority as maximizing the firm's value. Therefore, expenditures relating to CSR are conceived as a poor way to use shareholders' money, which practice digresses from shareholder value maximization theory. The theory upholds that performing CSR activities will consume the resources that otherwise might have facilitated the generation of a bigger profit for shareholders. From the point of view of shareholders, a higher performance of CSR could affect shareholders' interest. When interest is reduced, the capacity to pay or the interest in paying is also reduced, which may result in an enhanced distress risk, and both may relate to the higher costs of debt financing.

E. Freeman (1984) propounded stakeholder theory. His theory opposed shareholder theory, holding that businesses had to consider stakeholders in all facets of their operations. The theory proposed that corporations should go beyond the benefits shareholders stand to generate in order to consider

the welfare of a broader stakeholder group in society (Freeman, 1984). T. M. Jones (1995) broadens the theory by indicating that CSR is an indispensable part for corporations to obtain the essential resources and stakeholder support. Considering the standpoint of the theory, performing CSR may result in a discount cost of acquiring capital for two reasons. The first reason is that CSR-associated facts capture the organizational environmental peril and lead to a decline in the information asymmetry. This, in return, might have an effect on CoE (Jones, 1995; Heinkel, Kraus & Zechner, 2001; Orlitzky, Schmidt & Rynes, 2003). According to M. Jensen and W. Meckling (1976), any information that eases information asymmetries among contracting parties and as such reduces unfavorable selection and ethical hazard problems would be value relevant.

In developed countries, the largest number of empirical papers in the literature have recorded that disclosures of financial information make available the relevant pieces of information that are of value to stakeholders, and as such shrink CoC (Diamond & Verrecchia, 1991; Botosan, 1997; Leuz & Verrecchia, 2000; Graham, Harvey & Rajgopal 2005). In conformity with this argument, M. Orlitzky *et al* (2003) proposed that the information that related to the CSR recital was value relevant.

Performing CSR may lead to boosting the size of the investor base. Socially mindful investors choose to eliminate the firms with low CSR performance from their investment portfolios (Heinkel *et al*, 2001). By implication, corporations with healthy CSR performance are in advantage when increasing the comparative length in their investor bases is concerned. The healthier the size of the investor base, the lower CoC and the healthier the marketplace valuation (Merton, 1987).

METHODOLOGY

The sample included in the study comprises the 159 companies quoted on the NSE as of 2020. Using the nonprobability sampling technique, a sample of 32 companies with minimum one company from each

of the following sectors: the Industrial Sector, the Consumer Goods Sector, the Financial Service Sector, the Health Care Sector, the Technology Sector, the Basic Material Sector, the Oil and Gas Sector, and the Consumer Services Sector was made judgmentally. The selection was based on the complete, published annual reports for the period covered. To achieve the purpose of the study, content analysis was used to collect the panel data for the variables. The study adopted the panel least square method of the random effect model to analyze the influence of CSR on the cost of capital in Nigeria.

Dependent variable

The dependent variable is the CoC measured using CoE and CoD. Regarding CoE, the dividend capitalization model (DCM) was used to estimate the CoE. This model is mainly applied to the companies that pay out a dividend.

The formula to compute the DCM is as follows:

$$R_e = (D_1 / P_0) + g$$

where:

R_e = the cost of equity

D_1 = dividends per share next year

P_0 = the current share price

g = the dividend growth rate.

According to Corporate Finance Institute (2021), dividend growth for each year can be achieved by applying the following equation:

$$\text{Dividend growth} = (D_t / D_{t-1}) - 1$$

where:

D_t = the dividend payment of the year t ,

D_{t-1} = the dividend payment of the year $t-1$ (one year before the year t)

Cost of debt

CoD is the effective interest rate a company pays to debt holders on its current liabilities. In general, it refers to the after-tax CoD. The difference between the before-tax cost of debt and the after-tax cost of debt depends on the interest expenses deducted. As regards CoD, it is one minus the tax rate into interest expenses. Thus, the formula for calculating CoD reads as follows:

$$CoD = Interest\ Expenses\ (1 - Tax\ Rate).$$

Independent variable

Prior studies in Nigeria have used diverse CSR measurements. For example, A. U. Asian and T. A. Uche (2018) used dummy variables, A. T. Abideen, O. A. Abayomi and S. A. Nureni (2017) used donations made by companies to the community during the period, O. D. Adeyanju (2012) and U. O. Godwin (2012) used questionnaires, F. M. Ajide and A. A. Aderemi (2014) used the Morgan Stanley Capital International Environment Social and Governance Index (the MSCI ESG Index) - formerly the Kinder, Lydenberg, Domini Index (the KLD Index), and While, O. F. Olaoye and O. E. Oluwadare (2018) used the CSR disclosure Index. In this present study, however, the Thomson Reuther Index used by N. S. Ofogbe, C. N. Ezuwore-Obodoekwe, A. P. Ozoji, C. Namani, C. A. Anisiuba,

I. P. Oliakor and R. Okafor (2021) was adopted. The index measures CRS via the three dimensions, namely corporate social performance (CSP), environmental performance (ENP), and corporate governance performance (CGP). Table 1 shows the scores for the different categories of the ESG scores.

CONTROL VARIABLES (CVs)

Control variables - CoE

To recognize the effect CSR disclosure had on CoE, some variables were used as control variables to that effect. Considering the study carried out by C. Reverte (2012), the market-to-book value (MB), Beta (BETA), and the size of the firm (SIZE) were found to be connected with CoE. Alternatively, CoE ought to be positively correlated with the beta variable. In addition, L. Hail and C. Leuz (2006) opined that many proxies had represented the magnitude of the firm in different ways. That included the total assets, the market value of equity, the total sales, the number of the employees, and market capitalization. D. S. Dhaliwal *et al* (2011) conversely used the total assets logarithm to represent the size of the firm.

Regarding data availability, this study used the total assets logarithm to signify the size of the firm and the

Table 1 The Thomson Reuters indices for social, environmental, and CG performance

Pillar	Category	Scoring	Weight
Environmental performance	Resources use	19	11%
	Emission	22	12%
	Innovation	20	11%
Social performance	Workforce	29	16%
	Human rights	8	4.50%
	Community	14	8%
	Product Responsibility	12	7%
Governance performance	Management	34	19%
	Shareholders	12	7%
	CSR Strategy	8	4.50%
Total		178	100%

Source: Thomson Reuters

market-to-book value (MBV) as CVs for CoE. The data were retrieved from the published annual reports of the companies included in the sample. The market-to-book value was calculated using the following formula:

$$MBV = \text{share price divided by net book value per share,}$$

where:

$$\text{net book value} = \text{total assets} - \text{total liabilities.}$$

Control variables - CoD

M. F. Izzo and B. S. Magnanelli (2012) stipulate that profitability is negatively connected with CoD. For this reason, return on assets (ROA) is used as a proxy for profitability. Additionally, they argue that financial leverage (LEV) and Beta (BETA) are positively correlated with CoD. In that regard, and based on data availability, ROA and leverage are used as CVs for CoD. Leverage is derived by means of dividing the total debt by the market value of equity, whereas return on assets is computed using the formula stated below:

$$ROA = \text{net income/average total asset.}$$

To calculate a company's ROA, it is more accurate to use the average total assets. This is necessary as a company's total assets can change over a period, which may be due to the purchase or sale of fixed assets, such as vehicles, land, and equipment. Consequently, the calculation of the average total assets is more accurate than the total assets for one particular period (Claire Boyte-White, 2021).

Model specification

The functional relationship between CSR and COC; COE, and COD can be identified as follows:

$$y_{i-t} = \beta_0 + \beta_1 X_{i-t} + \beta_2 X_{i-t} + \beta_3 X_{i-t} + \beta_4 X_{i-t} + \beta_5 X_{i-t} + \mu_{i-t} \quad (1)$$

Hypothesis 1

$$COE = \beta_0 + \beta_1 CSP_{i-t} + \beta_2 EP_{i-t} + \beta_3 CGP_{i-t} + \beta_4 LOGFSIZ_{i-t} + \beta_5 MBV_{i-t} + \mu_{i-t} \quad (2)$$

Hypothesis 2

$$COD = \beta_0 + \beta_1 CSP_{i-t} + \beta_2 EP_{i-t} + \beta_3 CGP_{i-t} + \beta_4 ROA_{i-t} + \beta_5 LEV_{i-t} + \mu_{i-t} \quad (3)$$

where:

y_{i-t} = the dependent variable

β_0 = the intercept of the equation

$\beta_1 - \beta_5$ = the coefficients of the X_{i-t} variable

X_{i-t} = the independent variable

I = the cross-section variables of the companies included in the sample

T = the study period

μ = the error term

The estimation procedure: The estimation process follows a collection of the pre-estimation tests, diagnostics tests and panel estimation tests. A choice of the fixed effect and random effect regression model depends on the Hausmann test carried out on the panel data.

Data Analysis and Results

Considering the data obtained from the companies' published financial statements from 2005 to 2019, covering a period of 15 years of observation, a total of 480 observation data were collected.

Pre-test Descriptive Statistics (DS)

Table 2 shows the results of the DS for all the variables from 2005 to 2019.

Table 2 shows the result of the descriptive statistics of the individual variables respectively. Regarding the CoC, CoE and CoD, the arithmetic mean is 12.624 and 5.834, respectively. By implication, the cost of financing the debt is moderately expensive. For CSP, ENP and CGP, the mean scores are 33.875, 23.952, and 32.844, respectively. By implication, the analysis

Table 2 The descriptive statistics

	COE	LCOD	CSP	ENP	CGP	LFIRMSIZ	MBV	ROA	LEV
Mean	5.834	12.624	33.875	23.952	32.842	16.798	3.785	0.168	5.880
Median	1.342	12.455	35.000	24.000	34.000	17.008	2.995	0.077	1.750
Maximum	283.000	20.442	47.000	43.000	54.000	23.039	9.970	4.652	680.144
Std. Dev.	19.569	2.759	9.198	8.050	10.238	2.340	2.414	0.316	35.727
Skewness	9.404	0.064	-1.675	0.012	-1.577	-0.152	0.756	8.317	16.033
Kurtosis	113.039	2.638	6.779	2.482	6.444	2.799	2.469	101.816	282.879
Jarque-Bera	2492447	2.944	510.11	5.384	436.01	2.649	51.297	2008259	1583903
Observations	480	479	480	480	480	478	480	480	479

Source: Authors

shows a healthier performance of CSR. The standard deviation values are small compared to the mean. This means the values in the statistical set are close to the mean of the data set. All the variables demonstrate a positive value for the kurtosis with the values smaller or greater than three. These reveal the fact that the degree of the tailedness of all the variables except LCoD, ENP and LFIRMSIZ has a heavier tail, which is called a leptokurtic distribution. LCoD, ENP, MBV and LFIRMSIZ have a lighter tail, which is called platykurtosis.

Table 3 demonstrates the results of the Pearson correlation among the proxies of CoC, CSR, and the control variables. CSP is negative and does not significantly correlate with CoE but does significantly correlate with LCoD (-0.014 and 0.004). CSP is also found to be positive and not to significantly correlate with ENP. ENP is both negative/positive and does not substantially correlate with CoE, LCoD and CSP. CGP is positive and significantly correlates with CSP and ENP but does not substantially correlate with CoE and LCoD. CGP negatively and significantly correlates with CoE and LCoD but does not significantly correlate with CSP and ENP. Several control variables correlate with the cost of capital variables. No high correlation was found among the explanatory variables, which suggests that multicollinearity is not a serious concern in this study.

The panel unit root test summary methods were applied. Table 4 shows the results of the unit root test.

All the variables are stationary at the levels and at the first difference. This prompts the study to proceed to do the Hausmann test. The Hausmann test is meant to select the best model for each of the hypotheses.

Panel Regression Analysis

Hypothesis 1: CSR correlates with the CoE of the companies listed on the NSE.

To make a decision on the appropriate model for this hypothesis, the random and fixed effect variants of the panel data were considered side by side using the Hausmann test. The Hausmann test hypothesis reads as follows:

H0: The random effect model is appropriate.

H1: The fixed effect model is suitable.

If the p-value < 5%, reject the null hypothesis; otherwise, accept the alternative hypothesis.

Table 5 shows the result of the Hausmann test hypothesis. The 5-degree-freedom cross-section chi-square statistics are 4.86 and $p = 0.433$. Since $p > 5\%$, the null hypothesis is accepted for the Hypothesis 2. In conclusion, the random effect model is a better option than the fixed effect model (Ofogbe *et al*, 2021).

The panel random effect regression outcomes are as shown in Table 6. R^2 of 2.3% shows that the panel regression fits in well. The exogenous variables mutually account for a 2.3% variation in the

Table 3 The Pearson correlation matrix among the variables

	COE	LCOD	CSP	ENP	CGP	LFIRMSIZ	MBV	ROA	LEV
COE	1.00000								
LCOD	0.039* (0.387)	1.000000							
CSP	-0.014* (0.757)	0.004** (0.0715)	1.000000						
ENP	-0.072* (0.114)	0.001* (0.9818)	0.029* (0.5271)	1.0000					
CGP	0.041* (0.367)	0.932* (0.9818)	0.586** (0.0000)	0.105* (0.0217)	1.0000				
LFIRMSIZ	0.089** (0.053)	0.752*** (0.0000)	-0.049* (0.2788)	0.049* (0.2862)	-0.047* (0.3089)	1.00000			
MBV	0.069* (0.132)	-0.053* (0.2484)	0.022* (0.6313)	0.048* (0.2994)	0.047* (0.3088)	0.002* (0.9729)	1.00000		
ROA	-0.040* (0.3817)	-0.007* (0.8709)	-0.001* (0.9795)	-0.069* (0.1297)	-0.099** (0.0302)	-0.086** (0.0607)	0.013* (0.7775)	1.00000	
LEV	0.094** (0.0407)	0.181*** (0.0001)	-0.150*** (0.0010)	-0.098** (0.0319)	-0.195*** (0.0000)	0.158*** (0.0005)	-0.012* (0.7937)	-0.003* (0.9504)	1.0000

(i) Variable Construe: the cost of equity (CoE), the log of CoD (LCoD), corporate social performance (CSP), environmental performance (ENP), corporate governance performance (CGP), the log of the firm size (LFIRMSIZ), the market-to-book value (MBV), return on assets (ROA) and leverage (LEV).

(ii) P-values in parenthesis; *p < 0.10, **p < 0.05, ***p < 0.01

Source: Authors

Table 4 The summary of the panel unit root test

Variables	Levin, Lin & Chu t	Im, Pesaran and Shin W-stat	ADF - Fisher Chi-square	PP - Fisher Chi-square	Status
COE	-26.1006*** (0.0000)	-9.09385*** (0.0000)	154.784*** (0.0011)	246.747*** (0.0000)	1(0)
LCOD	-11.0390** (0.0322)	-8.13000*** (0.0000)	188.976*** (0.0066)	410.870*** (0.0000)	1(0)
CPS	-1.29763** (0.0972)	-3.25021*** (0.0006)	98.3057*** (0.0038)	214.417*** (0.0000)	1(0)
ENP	-6.51652*** (0.0000)	-9.16233*** (0.0017)	203.642*** (0.0005)	203.642*** (0.0000)	1(1)
CGP	-7.67429*** (0.0000)	-8.43960*** (0.0000)	189.210*** (0.0000)	489.592*** (0.0000)	1(1)
LFIRMSIZ	-27.7669*** (0.0000)	-5.93797*** (0.0032)	92.5118** (0.0114)	102.638*** (0.0016)	1(1)
MBV	-16.9331*** (0.0000)	-12.1742*** (0.0052)	239.945*** (0.0017)	421.513*** (0.0000)	1(1)
ROA	-19.7947*** (0.0000)	-5.51149*** (0.0000)	110.923*** (0.0003)	219.401*** (0.0000)	1(1)
LEV	-582.245*** (0.0000)	-92.8617*** (0.0000)	177.392*** (0.0000)	383.509*** (0.0000)	1(1)

P-values is in parenthesis: the result is at 1%, 5% and 10% significance levels

Source: Authors

Table 5 The Hausmann test for Model One

Model One			
Test summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.858	5	0.4334

Source: Authors

Table 6 CSR correlates with the CoE of the companies listed on the NSE

Variables	Coefficient	Std Error	t-statistics	Pro.
CSP	-0.134891	0.120928	-1.115459	0.2652
ENP	-0.198236	0.111648	-1.775541	0.0765
CGP	0.178409	0.109324	1.631922	0.1034
LFIRMSIZ	0.789618	0.382438	2.064697	0.0395
MBV	-0.527425	0.371752	-1.418754	0.1566
C	-1.953468	7.890879	-0.247560	0.8046
R ²	2.3%			
Adjusted R-square	1.3%			
F-stat	2.24%			
P-value	0.049318			
D.W stat	1 1.83			

Source: Authors

endogenous variable with an unexplained variation of 97.7%. This implies that the other variables are responsible for the variation in the endogenous variable not accounted for. CSP and ENP are negative and are not significantly associated with CoE. By implication, CSP and ENP have not led to better access to capital at a reduced cost. The findings support shareholder theory which emphasizes the fact that the higher performance of CSR could affect shareholders' interest. The company's main interest is to maximize the value of the firm. This study is also in line with the findings by K. M. Menz (2010), whose study fails to establish the fact that CSR lowers CoD. CGP has a positive non-significant effect on CoD. For the CVs, LFIRMSIZ is positive and significantly correlates

with CoD, whereas the MBV is negative and fails to correlate with CoE.

Although R² is small, it cannot discredit the result because, on the whole, the result of the panel regression is significant. This is shown by the F-stat 2.24, the p-value 0.049318, and the Durbin Watson Statistics 1.8, which is approximately 2. This outcome rules out the likelihood of the suspicion of the first-order positive autocorrelation. These figures are the pointers indicating that the obtained result is reliable for a meaningful analysis.

Hypothesis 3: CSR correlates with the CoD of the companies quoted on the NSE.

Table 7 shows the result of the Hausmann test. Based on the result, the random effect model is a better option than the fixed effect model.

Table 7 The Hausmann test for Model Two

Model One			
Test summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.161020	5	0.2909

Source: Authors

The regression results for the hypothesis two are as shown in Table 8. R² 4.4% shows how the panel regression fitted in well. The exogenous variables are jointly responsible for a 4.4% variation in the endogenous variable with an unexplained variation of 95.6%. CSP is negatively and significantly correlated with CoD, which implies that an increase in the CSP scores will lead to a decrease in CoD. ENP has a positive non-significant correlation with CoD.

This means ENP has not led to a reduction in the cost of obtaining capital. CGP has a significant positive association with CoD. This implies that, regarding CSR, the policies in place lead to better debt options and also reduce CoD. This result supports A. Goss and G. S. Robert (2011) and S. Chava (2014). Their studies revealed that CSR significantly lowered bank loans.

Table 8 CSR correlates with the COD of listed companies in NSE

Variables	Coefficient	Std Error	t-statistics	Pro.
CSP	-0.036982	0.016969	-2.179379	0.0298
ENP	0.003537	0.015591	0.226881	0.8206
CGP	0.030548	0.015455	1.976622	0.0487
ROA	0.033327	0.396932	0.083962	0.9331
LEV	0.014297	0.003562	4.013464	0.0001
C	12.70244	0.637232	19.93377	0.0000
R ²	4.4%			
Adjusted R-square	3.4%			
F-stat	4.36%			
P-value	0.000682			
D.W stat	1 1.53			

Source: Authors

For the CVs, ROA is positive and non-significantly correlated with CoD while LEV is positive and significantly correlated with CoD.

Although R² is small, it cannot discredit the result because, on the whole, the result is significant. This is shown by the F-stat 4.36, p = 0.000682, and the Durbin Watson Statistics 1.5, which is approximately 2. This

outcome rules out the likelihood of the suspicion of the first-order positive autocorrelation. These figures are the pointers that indicate the fact that this result is reliable for a meaningful analysis.

To further support the consistency of the data set, a normality (diagnostic) test was conducted. This was done in order to confirm that there were no violations of the assumption of the regression model. Such a violation would cause doubts regarding the validity and reliability of the regression model. The result is proven in Figure 1.

Diagnostic test

The above result is presented by the histogram and DS of the data set, including the Jarque-Bera statistics for testing normality. The rule is that, if data sets are normally distributed, the histogram should be bell-shaped, and the Jarque-Bera statistics must not be significant at 5% levels.

Figure 1 reveals the fact that the non-normality hypothesis is accepted since the p-value of the Jarque-Bera statistics > 0.05; (0.795967) and the histogram is bell-shaped. It is therefore concluded that the data set is normally distributed and can be used to carry out a meaningful analysis.

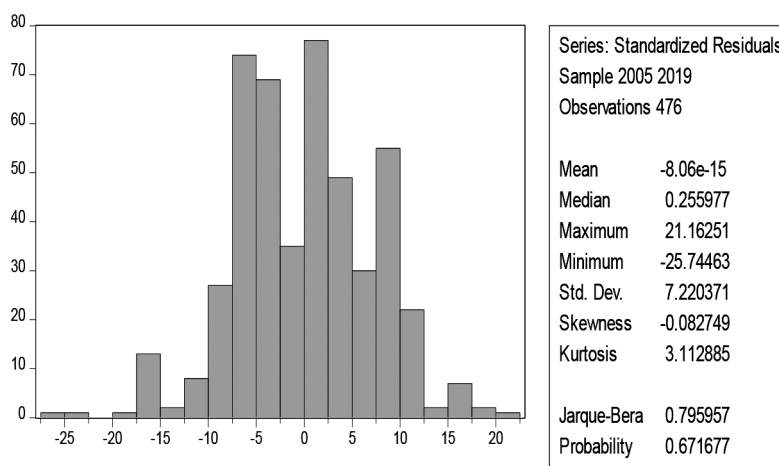


Figure 1 The normality assumption test

Source: Authors

CONCLUSION

This study explored the effect of CSR on the CoC of the selected companies quoted on the NSE for a period of 15 years, namely from 2005 to 2019. Yearly panel data were used. The data were analyzed using descriptive statistics, the correlation matrix, the unit root test and the random effect model. To make a decision on an appropriate model for this hypothesis, the random and fixed effect variants of the panel data were considered side by side using the Hausmann test. The general result of the study revealed that CSR had an influence on the CoC of the selected companies in Nigeria. In conformity with the studies carried out in the developed world, namely K. M. Menz (2010); A. Goss and G. S. Robert (2011) and S. Chava (2014), mixed results were obtained.

For the first hypothesis, the general result shows a significant correlation between CSR and the cost of equity. This shows to a great extent that performing CSR has led to the better options for obtaining capital at a reduced cost.

For the second hypothesis, although the individual effect of the different dimensions of CSR differs, there is strong evidence that performing CSR in the course of doing business has noticeably led to a better option for accessing capital at a reduced interest rate. These findings support the findings of the largest number of international empirical studies, among which some may be mentioned O. Youngkyung and K. Jungmu (2019).

The significant impact of the CSR dimension on CoC implies that the companies included in the study sample for the studied period engaged themselves in CSR practice and, as a result, accessed capital with ease and at a reduced cost. In other words, CSR initiatives can attract funding whether these activities are routed through stakeholders or not.

The findings have a practical inference. The result will spur those companies that are not CSR-compliant to adopt CSR as a part of their day-to-day operations and motivate CSR-compliant companies to dedicate more attention to CSR issues. That is, its outcome is helpful to the organizations practicing CSR, those yet to adopt CSR, and stakeholders as well.

To conclude, the companies that invest in CSR have a better chance of accessing funds at a better and low cost.

Based on the findings, the study advocates continuous investment on the issues that concern CSR as these will, if consistent, lead to easy access to capital and at a reduced cost.

Notwithstanding the effort this study has made, the same is limited by the number of the companies included in the sample. For instance, out of the 159 companies quoted on the NSE, only 32 have complete reports for the studied period of 15 years.

To extend the discourse, it is suggested that further studies should adopt other measures for CSR, such as the amount of data and information disclosed in the annual report and the KLD Index in future research. Also, the relationship between social responsibility disclosure and the stock price can also be considered. Therefore, future studies should consider this matter.

REFERENCES

- Abdulaziz, A. (2018). Corporate social responsibility: Concepts, perspectives, and link with corporate performance: Literature review. *International Journal of Business and Management Review*, 6(2), 1-14.
- Abideen, A. T., Abayomi, O. A., & Nureni, S. A. (2017). Effects of corporate social responsibility on banks FP in Nigeria: A study of United bank of Africa. *International Journal of Business, Economics and Management* 4(6), 136-147. doi:10.18488/journal.62.2017.46.136.147
- Adeyanju, O. D. (2012). An assessment of the impact of corporate social responsibility on Nigerian society: The examples of banking and communication industries. *Universal Journal of Marketing and Business Research*, 1(1), 17-43.
- Agbiogwu, A. A., Ihendinihu, J. U., & Okafor, M. C. (2016). Impact of environmental and social costs on performance of Nigerian manufacturing companies, *International Journal of Economics and Finance*, 8(9), 173-180. doi:10.5539/ijef.v8n9p173

- Ajide, F. M., & Aderemi, A. A. (2014). The effects of corporate social responsibility activity disclosure on corporate profitability: Empirical evidence from Nigerian commercial banks. *IOSR Journal of Economics and Finance*, 2(6), 17-25. doi:10.9790/5933-0261725
- Allen, G., & Gordon, S. R. (2011). The impact of corporate social responsibility on the cost of bank loans. *Journal of Banking & Finance*, 35(7), 1794-1810. doi:10.1016/j.jbankfin.2010.12.002
- Ansong, A., Agyei, S. K., & Marfo-Yiadom, E. (2017). Do lenders value firm reputation? Evidence from SMEs in Ghana. *EuroMed Journal of Management*, 2(2), 152-163. doi.org/10.1504/EMJM.2017.085874
- Asian A. U., & Uche, T. A. (2018). Financial performance and corporate social responsibility of quoted firms in Nigeria. *International Journal of Innovative Social Sciences & Humanities Research*, 6(1), 14-30.
- Attig, N., El Ghouli, S., Guedhami, O., & Suh, J. (2013). Corporate social responsibility and credit ratings. *Journal of business ethics*, 117(4), 679-694. doi:10.1007/s10551-013-1714-2
- Banerjee, S. B. (2008). Corporate social responsibility: The good, the bad, and the ugly. *Critical Sociology*, 34(1), 51-79. doi.org/10.1177/0896920507084623
- Barbara, S. M., & Maria, F. I. (2017). Corporate social performance and cost of debt: The relationship. *Social Responsibility Journal*, 13(2), 250-265. doi:10.1108/SRJ-06-2016-0103
- Basu, K., & Palazzo, G. (2008). Corporate social responsibility: A process model of sensemaking. *Academy of Management Review*, 33(1), 122-136. doi.org/10.2307/20159379
- Botosan, C. A. (1997). Disclosure level and the cost of equity capital. *The Accounting Review*, 72(3), 323-349.
- Chava, S. (2014). Environmental externalities and cost of capital. *Management Science*, 60(9), 2223-2247. doi.org/10.1287/mnsc.2013.1863
- Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal*, 35(1), 1-23. doi.org/10.1002/smj.2131
- Chin-Chen Y., Fengyi, L., Teng-Shih, W., & Chia-Ming, W. (2020). Does corporate social responsibility affect cost of capital in China? *Asia Pacific Management Review*, 25(1), 1-12. doi:10.1016/j.apmr.2019.04.001
- Claire Boyte-White. (2021). *Guide to financial Ratio*, Investopedia. Retrieved April 18, 2021, from <https://www.investopedia.com/ask/answers/031215/what-formula-calculating-return-assets-roa.asp>
- Corporate Finance Institute. (2021). *Cost of Equity Formula*. Retrieved January 15, 2021, from <https://corporatefinanceinstitute.com/resources/knowledge/finance/cost-of-equity-guide/>
- Demiroglu, C., & James, C. M. (2010). The information content of bank loan covenants. *Review of financial Studies*, 23(10), 3700-3737.
- Denis, D. J., & Mihov, V. T. (2003). The choice among bank debt, non-bank private debt, and public debt: Evidence from new corporate borrowings. *Journal of Financial Economics*, 70(1), 3-28. doi.org/10.1016/S0304-405X(03)00140-5
- Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review*, 86(1), 59-100. doi.org/10.2308/accr.00000005
- Diamond, D., & Verrecchia, R. (1991). Disclosure, liquidity, and the cost of capital. *Journal of Finance*, 46(4), 1325-1359. doi.org/10.1111/j.1540-6261.1991.tb04620.x
- Drucker, S., & Puri, M. (2009). On loan sales, loan contracting, and lending relationships. *Review of Financial Studies*, 22(7), 2835-2872. doi.org/10.1093/rfs/hhn067
- Dubbink, W., Graafland, J., & Van Liedekerke, L. (2008). Corporate social responsibility, transparency and the role of intermediate organisations. *Journal of Business Ethics*, 82(2), 391-406. doi:10.1007/s10551-008-9893-y
- Dugger, W. M. (1989). *Corporate Hegemony*. Santa Barbara, CA: Greenwood Publishing Group.
- Ehioghiren, E. E., & Eneh, O. (2019). Corporate social responsibility accounting and financial performance of insurance companies in Nigeria. *International Journal of Academic Accounting, Finance & Management Research*, 3(5), 16-25.
- Ernst & Young (2013). *The Value of Sustainability Reporting*. Retrieved January 5, 2015, from <http://www.ey.com/US/en/Services/SpecialtyServices/Climate-Change-and-sustainability-Services/Value-of-sustainability-reporting>.
- Freeman, E. (1984). *Strategic Management: A Stakeholder Approach*. Cambridge, MA: Cambridge University Press.

- Friedman, M. (1962). *Capitalism and Freedom*. Chicago, IL: University of Chicago Press.
- Godwin, U. O. (2012). Community perception and oil companies corporate social responsibility initiative in the Niger Delta. *Studies in Sociology of Science*, 3(4), 11-21, doi:10.3968/j.sss.1923018420120304.600
- Goss, A., & Roberts, G. S. (2011). The impact of corporate social responsibility on the cost of bank loans. *Journal of Banking & Finance*, 35(7), 1794-1810. doi.org/10.1016/j.jbankfin.2010.12.002
- Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, 40(1-3), 3-73. doi:10.1016/j.jacceco.2005.01.002
- Hail, L., & Leuz, C. (2006). International differences in the cost of equity capital: do legal institutions and securities regulation matter? International cost of equity capital. *Journal of Accounting Research*, 44(3), 485-531. doi.org/10.1111/j.1475-679X.2006.00209.x
- Hawn, O., Chatterji, A., & Mitchell, W. (2011). How operational legitimacy conditions the impact of changes in social legitimacy on firm's economic value: The Dow Jones sustainability index addition and deletion. *Working paper 11/2011*. Duke University.
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31(1-3), 405-440. doi.org/10.1016/S0165-4101(01)00018-0
- Heinkel, R., Kraus, A., & Zechner, J. (2001). The effect of green investment on corporate behaviour. *The Journal of Financial and Quantitative Analysis*, 36(4), 431-449. doi.org/10.2307/2676219
- Izzo, M. F., & Magnanelli, B. S. (2012). Does it pay or does the firm pay? The relation between CSR performance and the cost of debt. Retrieved April 12, 2021, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1986131
- Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. doi.org/10.1016/0304-405X(76)90026-X
- Joëla, M. A. J. (2017). *The effect of corporate social responsibility on the cost of equity from a legal origin and cultural perspective*. University of Groningen and Uppsala University.
- Jones, T. M. (1995). Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of management review*, 20(2), 404-437. doi.org/10.2307/258852
- Joseph, U. M., & Michah, C. O. (2016). Impact of corporate social responsibility on financial performance: Evidence from listed banks in Nigeria. *Expert Journal of Finance*, 4, 1-9.
- Krishnaswami, S., Spindt, P. A., & Subramaniam, V. (1999). Information asymmetry, monitoring, and the placement structure of corporate debt. *Journal of Financial Economics*, 51(3), 407-434.
- Lee, M. -D. P. (2008). A review of the theories of corporate social responsibility: Its evolutionary path and the road ahead. *International Journal of Management Reviews*, 10(1), 53-73. doi.org/10.1111/j.1468-2370.2007.00226.x
- Leland, H. E., & Pyle, D. H. (1977). Informational asymmetries, financial structure, and financial intermediation. *Journal of Finance*, 32(2), 371-387. doi.org/10.2307/2326770
- Leuz, C., & Verrecchia, R. (2000). The economic consequences of increased disclosure. *Journal of Accounting Research*, 38, 91-124. doi.org/10.2307/2672910
- Menz, K. M. (2010). Corporate social responsibility: Is it rewarded by the corporate bond market? A critical note. *Journal of Business Ethics*, 96(1), 117-134. doi:10.1007/s10551-010-0452-y
- Merton, R. (1987). A simple model of capital market equilibrium with incomplete information. *Journal of Financial Economics*, 42(3), 483-510. doi.org/10.1111/j.1540-6261.1987.tb04565.x
- Moskowitz, M. (1972). Choosing socially responsible stocks. *Business and Society*, 1(1), 71-75.
- Ogunayo, F. O., & Ibidolapo, E. A. (2018). Corporate social responsibility on the performance of private telecommunication in Nigeria. *Canadian Social Science*, 14(8), 45-54. doi:10.3968/10511
- Ofofobe, N. S., Ezuwore-Obodoekwe, C. N., Ozoji, A. P., Namani, C., Anisiuba, C. A., Oliakor, I. P., & Okafor, R. (2021). Impact of environmental, social, and governance dimension of corporate social responsibility on firm performance: Evidence from Nigeria. *Humanities and Social Sciences Letters*, 9(2), 220-236, doi:10.18488/journal.73.2021.92.220.236

- Olaoye, O. F., & Oluwadare, O. E. (2018). Corporate social responsibility and stock price market of selected listed companies in Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 8(7), 872-886. doi:10.6007/IJARBS/v8-i7/4425
- Orlitzky, M., Schmidt, F., & Rynes, S. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24(3), 403-441. doi:10.1177/0170840603024003910
- Reverte, C. (2012). The impact of better corporate social responsibility disclosure on the cost of equity capital. *Corporate Social Responsibility and Environmental Management*, 19(5), 253-272. doi.org/10.1002/csr.273
- Smith, N. C. (2003). Corporate social responsibility: Whether or how? *California Management Review*, 45(4), 52-76. doi:10.2307/41166188
- Stephen, E., & Rebecca, O. D. (2018). Corporate social responsibility and Bank Performance in Nigeria. *Sriwijaya International Journal of Dynamic Economics and Business*, 2(4), 317-330, doi.org/10.9259/sijdeb.v2i4.317-330.
- Thomson Reuters. (2017). *Thomson Reuters ESG Score. Data fact sheet*. Retrieved January 24, 2021, from <https://financial.thomsonreuters.com/content/dam/openweb/documents/pdf/financial/esg-scores-factsheet.pdf>
- Votaw, D. (1973). Genius becomes rare. In D. Votaw, & S. P. Sethi (Eds.). *The Corporate Dilemma: Traditional values versus contemporary problems* (pp. 11-45). New Jersey, NJ: Prentice Hall.
- Walker, K., & Wan, F. (2012). The harm of symbolic actions and green-washing: Corporate actions and communications on environmental performance and their financial implications. *Journal of Business Ethics*, 109(2), 227-242. doi:10.1007/s10551-011-1122-4
- Weber, M. (2008). The business case for corporate social responsibility: A company level measurement approach for CSR. *European Management Journal*, 26(4), 247-261. doi.org/10.1016/j.emj.2008.01.006
- Wekesa, R. N. (2017). Corporate social responsibility and financial performance: The case of Safaricom Ltd. *International Journal of Finance and Accounting*, 6(6), 167-171. doi.10.5923/j.ijfa.20170606.02
- Youngkyung, O., & Jungmu, K. (2019). Which corporate social responsibility performance affects the cost of equity? Evidence from Korea. *Sustainability*, 11(10), 1-14. doi:10.3390/su11102947

Received on 3rd Jun 2021,
after revision,
accepted for publication on 25th November 2021
Published online on 6th December 2021

Nyore Sandra Ofogbe, Ph.D., is a fresh graduate of the Accountancy Department. She obtained her Ph.D. Degree in Accounting at the University of Nigeria Nsukka.

Chidiebere Nnamani obtained his Ph.D. in Accounting, University of Nigeria, Nsukka. He is a lecturer in the Department of Accountancy, University of Nigeria, Nsukka.

Chika Anastesia Anisiuba is a lecturer in the Department of Accountancy, University of Nigeria, Enugu Campus. She is a Certified National Accountant (CNA), an active member of the Association of National Accountants of Nigeria (ANAN), and an Associate member of the National Institute of Management and Society for Forensic Accounting and Fraud Prevention.

Charity Nkeiru Ezuwore-Obodoekwe is a lecturer in the Department of Accountancy, University of Nigeria. She has obtained several academic degrees and professional certificates in Accountancy within and outside the shores of Nigeria.

VEZA IZMEĐU KORPORATIVNE DRUŠTVENE ODGOVORNOSTI I CENE KAPITALA PRIVREDNIH DRUŠTAVA KOJA SE KOTIRAJU NA NIGERIJSKOJ BERZI

Nyore Sandra Ofogbe*, Chidiebere Nnamani, Chika Anastesia Anisiuba i Charity Nkeiru Ezuwore-Obodoekwe

University of Nigeria, Faculty of Business Administration, Accountancy Department, Nsukka, Nigeria

Cilj ove studije je analiza uticaja korporativne društvene odgovornosti na cenu kapitala privrednih društava koja se kotiraju na Nigerijskoj berzi. Godišnji panel podaci za 32 privredna društva, tokom perioda 2005-2019, koja se kotiraju na Nigerijskoj berzi, izabrani su po sopstvenoj diskreciji autora. Tomson Rojters Indeks je korišćen kao mera korporativne društvene odgovornosti, dok su cena sopstvenog, akcijskog kapitala i cena duga korišćeni kao mera cene kapitala. Saznanja do kojih se u studiji došlo pokazala su da postoji pozitivna-negativna beznačajna veza, kao i pozitivna-negativna značajna veza, između korporativne društvene odgovornosti i cene kapitala. Dobijeni rezultati potkrepljuju saznanja do kojih se došlo u naučnim radovima, posebno u razvijenim zemljama u kojima se ovaj aspekt naširoko istražuje. Zaključak je da privredna društva koja investiraju na korporativnu društvenu odgovornost imaju bolju šansu da po povoljnijoj ceni i nižem trošku dođu do kapitala. Bazirajući svoj stav na utvrđenim saznanjima, istraživači zagovaraju stav da je neophodno neprestano ulagati u ona pitanja koja se tiču korporativne društvene odgovornosti, jer je taj način, ukoliko se to dosledno čini, može olakšati pristup novčanim sredstvima po povoljnijoj ceni.

Ključne reči: korporativna društvena odgovornost, cena kapitala, Tomson Rojters Indeks, cena sopstvenog akcijskog kapitala, cena duga

JEL Classification: M1, M4

PREDMETNI INDEKS

(Ovaj Indeks uključuje sve članke publikovane u Časopisu, u 2021.)

Akcionarska društva 55, 56, 61, 62, 65
Akvizicije 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17,

Berza 55, 56, 59, 60, 61, 62, 63, 66, 102,
Bruto domaći proizvod (BDP) 33, 34, 35, 36, 37, 38, 39, 40,
41, 42, 43, 44, 45, 49, 50, 51, 52, 207, 211, 214, 215, 220,
Budžet 7, 13, 84, 208, 209, 210, 211, 215, 217, 218, 219, 220,

Devizne rezerve 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 45,
49,
Digitalno okruženje 241, 242, 247, 251,
Dizajn posla 241, 243, 244, 245, 252

Finansijski izveštaji 55, 57, 58, 59, 60, 61, 64, 66
Fiskalna decentralizacija 207, 208, 209, 210, 211, 215, 219,
220, 221
Fiskalni deficit (deficit) 71, 72, 73, 74, 78, 79, 80, 81, 84, 217,
218, 219
Fiskalni suficit 219, 220

Istraživanje i razvoj (I&R) 5, 7, 8, 10, 11, 12, 13
Inovacije 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 102,
103, 241,
Inovativnost 3, 4, 10, 11, 12, 13, 103, 242, 246, 251, 252
Izveštavanje o segmentima 55, 56, 64, 65, 66,

Javne finansije 207, 208, 212, 214, 215, 218, 219, 221,
Javne investicije 207, 208, 209, 211, 213, 214, 215, 216, 217,
218, 219, 220, 221,
Javni prihodi 207, 208, 210, 211, 212, 213, 214, 215, 217, 218,
219, 220, 221
Javni rashodi 207, 209, 210, 211, 212, 213, 214, 215, 216, 217,
218, 219, 220, 221

Komunikacija 4, 5, 9, 103, 173, 174, 175, 176, 177, 179, 180,
181, 182,

Lokalna samouprava (LSU) 2087, 209, 210, 211, 212, 213, 214,
215, 216, 217, 218, 219, 220, 221

Međunarodni standard finansijskog izveštavanja (MSFI) 55,
56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66

Novčana masa 33, 34, 37, 38, 40, 41, 49,

Organizacija 3, 4, 5, 8, 10, 13, 57, 58, 66, 101, 102, 103, 173,
174, 175, 176, 177, 178, 181, 183, 242, 246, 247, 251, 252
Organizacioni dizajn 241, 242, 251, 252,

Performanse 3, 4, 6, 7, 8, 10, 11, 12, 13, 57, 58, 69, 103, 174,
175, 175, 182,
Portfolio investicije 33, 38, 39, 40, 42, 45,
Privredni rast 35, 36, 38, 43, 44

Rad na daljinu 241, 242, 246, 247, 249, 251
Realni efektivni devizni kurs (REDK) 33, 34, 35, 40, 41, 42,
43, 44,
Revizorske kuće 55, 57, 60, 61, 65, 66

Spoljni dug 33, 37, 38, 39, 40, 44, 50
Strane direktne investicije (SDI) 38, 39, 40, 42, 44

Tehnologija 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 241, 242, 246, 251
Tekući račun 36, 38, 39, 40, 42, 43, 44, 45
Transfer znanja 3, 8, 9, 12, 13

Deficit (trgovinski i tekućeg računa) 36, 38, 39, 43, 44, 45

Upravljanje ljudskim resursima 173, 181

Zadovoljstvo komunikacijom 173, 174, 175, 176, 177, 178, 179,
180, 181, 182, 183,

Zadovoljstvo poslom 173, 174, 175, 176, 177, 178, 179, 180, 181,
182, 183,

Zaposleni 5, 7, 8, 9, 10, 13, 56, 60, 102, 103, 173, 174, 175, 176,
177, 178, 179, 180, 181, 182, 183, 241, 242, 243, 244, 245,
246, 247, 248, 249, 250, 251, 252, 253

PREGLED AUTORA I NASLOVA

(Ovaj Pregled obuhvata sve priloge publikovane u časopisu, u 2021.)

Baber, H., & Rao, D. T. (2021). The price of the lockdown - The effects of social distancing on the Indian economy and business during the COVID-19 pandemic. *Ekonomski horizonti*, 23(1), 85-99. Elektronska verzija objavljena 23. aprila 2021. doi:10.5937/ekonhor2101085B

Borkakati, S., & Singh, K. G. (2021). Fiscal responsibility law and subnational finance in India - An analysis of Assam's fiscal scenario. *Ekonomski horizonti*, 23(1), 71-84. Elektronska verzija objavljena 23. aprila 2021. doi:10.5937/ekonhor2101071B

Bošković, A. (2021). Autonomija i angažovanost zaposlenih u digitalnoj eri: Moderatorska uloga rada na daljinu. *Ekonomski horizonti*, 23(3), 241-257. Elektronska verzija objavljena 6. decembra 2021. doi:10.5937/ekonhor2103241B

Đorđević, B., Milanović, S. i Stanković J. (2021). Uticaj zadovoljstva komunikacijom na zadovoljstvo poslom - Primer zaposlenih u Republici Srbiji. *Ekonomski horizonti*, 23(2), 173-187. Elektronska verzija objavljena 2. avgusta 2021. doi:10.5937/ekonhor2102173D

Emudainohwo, O. B. (2021). Determinants of earnings management: The study of Nigerian nonfinancial companies. *Ekonomski horizonti*, 23(2), 139-155. Elektronska verzija objavljena 2. avgusta 2021. doi:10.5937/ekonhor2102139E

Hoang, L. K., Cao, B. T., Le, K. M., & Nguyen, D. T. T. (2021). Taxation and economic growth: A regression analysis based on a new classification. *Ekonomski horizonti*, 23(3), 225-240. Elektronska verzija objavljena 6. decembra 2021. doi:10.5937/ekonhor2103225H

Kovačević, R. (2021). Adekvatnost deviznih rezervi Republike Srbije i faktori koji utiču na njihovo formiranje. *Ekonomski horizonti*, 23(1), 33-53. Elektronska verzija objavljena 23. aprila 2021. doi:10.5937/ekonhor2101033K

Leković, V. (2021). Uvodnik. *Ekonomski horizonti*, 23(1), 1-2. Elektronska verzija objavljena 23. aprila 2021.

Leković, V. (2021). Uvodnik. *Ekonomski horizonti*, 23(2), 105-106. Elektronska verzija objavljena 2. avgusta 2021.

Leković, V. (2021). Zahvalnica recenzentima. *Ekonomski horizonti*, 23(2), 203-204. Elektronska verzija objavljena 2. avgusta 2021.

Leković, V. (2021). Uvodnik. *Ekonomski horizonti*, 23(3), 205-206. Elektronska verzija objavljena 6. decembra 2021.

Leković, V. (2021). Pregled autora i naslova. *Ekonomski horizonti*, 23(3), 309-310. Elektronska verzija objavljena 6. decembra 2021.

Longe, A. E., Soyemi, C. O., Agbanuji, D. A., Omitogun, O., & Adekomi, I. J. (2021). Oil price asymmetry, energy use and economic growth transition in Nigeria. *Ekonomski horizonti*, 23(2), 189-202. Elektronska verzija objavljena 2. avgusta 2021. doi:10.5937/ekonhor2102189L

Nguyen, A. T., & Thanh, T. T. M. (2021). Impacts of trade facilitation performance on trade flows of ASEAN. *Ekonomski horizonti*, 23(3), 275-288. Elektronska verzija objavljena 6. decembra 2021. doi:10.5937/ekonhor2103275N

Obradović, V., Milašinović, M. i Bogićević, J. (2021). Obelodanjivanja o segmentima u finansijskim izveštajima akcionarskih društava u Republici Srbiji i Republici Hrvatskoj. *Ekonomski horizonti*, 23(1), 55-70. Elektronska verzija objavljena 23. aprila 2021. doi:10.5937/ekonhor2101055O

Osazevaru, H. O. (2021). Interest rate and exchange rate volatility and the performance of the Nigerian informal sector: Evidence from small and medium-sized enterprises. *Ekonomski horizonti*, 23(1), 19-32. Elektronska verzija objavljena 23. aprila 2021. doi:10.5937/ekonhor2101019O

Ofogbe, N. S., Nnamani, C., Anisiuba, C. A., & Ezuwore-Obodoekwe, C. N. (2021). Corporate social responsibility and cost of capital of listed companies in Nigeria stock exchange: The relationship. *Ekonomski horizonti*, 23(3), 289-305. Elektronska verzija objavljena 6. decembra 2021. doi:10.5937/ekonhor2103289O

Pavón Cuéllar, L. I. (2021). Financial inclusion as a pillar of sustainable growth: International experience. *Ekonomski horizonti*, 23(2), 107-121. Elektronska verzija objavljena 2. avgusta 2021. doi:10.5937/ekonhor2102107P

Pietruszka-Ortyl, A. (2021). Culture of cooperation among knowledge workers: A study of the IT sector in Poland. *Ekonomski horizonti*, 23(2), 123-137. Elektronska verzija objavljena 2. avgusta 2021. doi:10.5937/ekonhor2102123P

Ranđelović, S. i Vukanović, S. (2021) Fiskalna decentralizacija i lokalna politika javnih investicija u Republici Srbiji. *Ekonomski horizonti*, 23(3), 207-224. Elektronska verzija objavljena 6. decembra 2021. doi:10.5937/ekonhor2103207R

Rita, M. R., Nugrahanti, Y. W., & Kristanto, A. B. (2021). Peer-to-peer lending, financial Bootstrapping, and government support: The role of innovation mediation on MSME performance. *Ekonomski horizonti*, 23(3), 259-274. Elektronska verzija objavljena 6. decembra 2021. doi:10.5937/ekonhor2103259R

Savović, S., Zlatanović, D. i Nikolić, J. (2021). Tehnološke akvizicije kao instrument podrške unapređenju inovativnog potencijala preduzeća. *Ekonomski horizonti*, 23(1), 3-18. Elektronska verzija objavljena 23. aprila 2021. doi:10.5937/ekonhor2101003S

Spasić, D., Abouagla, M. A., & Sekerez, V. (2021). Are IFRS adoptable for a developing country with a specific business culture? Attitudes of Sudanese accountants. *Ekonomski horizonti*, 23(2), 157-172. Elektronska verzija objavljena 2. avgusta 2021. doi:10.5937/ekonhor2102157S

Stanišić, N. i Marinković, V. (2021). Predmetni indeks. *Ekonomski horizonti*, 23(3), 307-308. Elektronska verzija objavljena 6. decembra 2021.

Zlatanović, D. (2021). VI-ta Međunarodna naučna konferencija: Contemporary Issues in Economics, Business and Management - EBM 2020. December 14, 2020, Kragujevac, The Republic of Serbia. *Ekonomski horizonti*, 23(1), 101-104. Elektronska verzija objavljena 23. aprila 2021.

CIP - Каталогизacija y publikaciji
Народна библиотека Србије, Београд

33

EKONOMSKI horizonti / glavni i odgovorni urednik
Vlastimir Leković. - God. 1, br. 1/2 (1999)- . - Kragujevac:
Ekonomski fakultet Univerziteta u Kragujevcu, 1999 -
(Kragujevac: InterPrint). - 26 cm

Tri puta godišnje. - Tekst na srp. i engl. jeziku. - Drugo
izdanje na drugom medijumu : Ekonomski horizonti
(Online) = ISSN 2217-9232
ISSN 1450-863X = Ekonomski horizonti (Štampano izd.)
COBISS.SR-ID 158022663

UPUTSTVA AUTORIMA

Uvod: Rukopisi, koji se podnose Glavnom i odgovornom uredniku Časopisa, trebaju biti originalni, neobjavljeni, i ne smeju biti u postupku recenziranja bilo kog drugog časopisa. Rukopisi trebaju biti napisani na stilski i gramatički standardnom **srpskom i engleskom**, odnosno, samo na **engleskom** jeziku, autora čiji maternji jezik nije srpski. Autorima se sugeriše da rukopise striktno usaglase u svim elementima sa zahtevima ovog Uputstva. Svi rukopisi podležu procesu dvostruko anonimnog recenziranja.

Podnošenje rukopisa: Rukopisi se podnose elektronski. Autori treba da podnesu tri fajla: fajl sa informacijama o: naslovu rada, imenima autora, njihovim godištim, institucijama i adresama (e-mail, poštanska adresa, broj telefona), fajl sa rukopisom: naslov rada, apstrakt, ključne reči, JEL klasifikacija rukopisa, središnji deo rada, slike, tabele, grafikoni ugrađeni u rad, zahvalnica (ukoliko postoji), reference, priloge (ukoliko postoje), endnote (ukoliko postoje), i fajl sa potpisanim i skeniranom Izjavom autora o originalnosti rukopisa.

Dužina podnesaka: Rukopisi bi trebali da sadrže od 5000 do 7000 reči.

Naslov rukopisa: Naslov rukopisa treba biti napisan najviše u dva reda.

Apstrakt i Ključne reči: Apstrakt treba biti od 100 do 150 reči. Autori treba da izdvoje 3-6 ključnih reči.

JEL klasifikacija: Prema: *Journal of Economic Literature (JEL) Classification System*: http://www.aeaweb.org/journal/jel_class_system.php, autori treba da klasifikuju svoj rukopis.

Slike i Tabele: Slike mogu biti u TIFF, GIF, JPG, PDF, CDR formatu, u rezoluciji najmanje 300dpi. Tabele trebaju biti urađene u Word, Excel, Corel, Visio, SPSS formatu. Slike i tabele treba numerisati uzastopno; svaka Slika treba biti potpisana svojim naslovom, i izvorom, a svaka Tabela treba imati svoje zaglavlje, i biti potpisana izvorom.

Zahvalnica: Naziv i broj projekta u okviru koga je rukopis nastao, i naziv institucije koja finansira projekat, odnosno, zahvalnost recenzentima, itd. navode se nakon Zaključka, tj. ispred Referencata.

Endnote: Endnote treba smestiti na kraju rukopisa, nakon Referenci. Fusnote se ne prihvataju.

Reference: Reference bi trebale biti iz svih odgovarajućih izvora, i trebale bi biti lako dostupne čitaocima. Broj referencata na koje se autori pozivaju u svom rukopisu bi trebao biti od 20 do 30. U **tekstu:** u slučaju jedne reference, izvor se navodi na sledeći način: (Rosenhead, 2005); u slučaju više referencata, izvore treba poredati hronološki, na primer: (Midgley, 2000; Mingers, 2006). U **listi** referencata: treba navesti samo one izvore na koje se autori pozivaju u rukopisu; radovi se navode bez numerisanja, prema prezimenima autora, u abecednom redosledu; ukoliko više od jedne reference ima isto autorstvo

i datum koristi se a, b, ... nakon datuma, na primer: Jackson, M. C. (2006a); ukoliko neka referenca poseduje DOI broj, treba ga napisati na kraju reference. Reference u tekstu i listu referenci treba uraditi prema (APA- Publication Manual of American Psychological Association (<http://www.apastyle.org/pubmanual.html>)): **Knjiga s jednim autorom:** Morgan, G. (1997). *Images of Organization*. London, UK: SAGE Publications. **Knjiga sa dva autora:** Flood, R. L., & Romm, N. R. A. (1996). *Diversity Management: Triple Loop Learning*. Chichester, England: John Wiley. **Knjiga sa više od dva autora:** van Marrewijk, C., Ottens, D., & Schueller, S. (2006). *International Economics: Theory, Application, and Policy*. Oxford, UK: Oxford University Press. **Članak u časopisu:** Zhu, Z. (2011). After paradigm: why mixing-methodology theorising fails and how to make it work again. *Journal of the Operational Research Society*, 62(4), 784-798. **Poglavlje u redigovanoj knjizi:** Brocklesby, J. (1997). Becoming multimethodology literate: An assessment of the cognitive difficulties of working across paradigms. In J. Mingers, & A. Gill (Eds.). *Multimethodology: The Theory and Practice of Combining Management Science Methodologies* (pp. 189-216). Chichester, England: John Wiley. **Saopštenje - u zborniku sa naučne konferencije - štampano u celini:** Feret, K. (2011). Serbia and Poland on map of the global air cargo shipment. In V. Babić (Ed.). *Contemporary Issues in Economics, Business and Management* (pp. 3-16). Kragujevac: Faculty of Economics in Kragujevac. **Rad prezentiran na naučnoj konferenciji/simpozijumu, skupu:** Prochniak, M. (2008, April). *Real Economic Convergence between Central and Eastern Europe and the European Union*. Paper presented at the conference of the Chinese Economic Association, Cambridge, UK. **Web site:** Waugh, M. E. (2010). International Trade and Income Differences. *American Economic Review*, 5, 2093-2124. Retrieved March 11, 2012, from <http://www.aeaweb.org/aer/contents/index.php>.

Biografska skica autora: Na kraju rukopisa treba - u ne više od 50-tak reči - navesti osnovne podatke iz profesionalne biografije autora.

Prikazi knjiga i Najava i prikazi naučnih konferencija: podležu procesu recenziranja, i ne bi trebalo da sadrže više od 1000 reči. Prikaz knjige treba da obuhvati naslov knjige, ime autora i izdavača, godinu publikovanja, broj strana i ISBN broj. Prikaz knjige treba da sadrži kritičko i konstruktivno vrednovanje njene relevantnosti u teorijsko-metodološkom i praktičnom smislu.

Etika publikovanja: S ciljem predupređivanja objavljivanja plagijata, neverodostojnih podataka i rezultata, itd, autori uz Rukopis treba da - kao attachment - dostave potpisanu i skeniranu Izjavu o originalnosti rukopisa, koja se može preuzeti sa sajta Časopisa.

Sekretar Uredništva: Sve relevantne informacije, autori rukopisa mogu dobiti od sekretara Uredništva:

e-mail: horizonti@kg.ac.rs

