

Volume 9 | Issue 2
Godište 9 | Sveščić 2

ISSN 1849 – 8531
e-ISSN 2459 – 5616
UDK 519.20 (033)
DOI 10.62366/crebss

Croatian Review of Economic, Business and Social Statistics

Hrvatska revija ekonomiske,
poslovne i društvene statistike

Publisher/izdavač
Croatian Statistical Association
Hrvatsko statističko društvo

Zagreb, 2023

CREBSS indexing/indeksiranje

ASCI (Asian Science Citation Indeks), Baidu Scholar, Cabell's Directory, CNKI Scholar (China National Knowledge Infrastructure), CNPIEC, Dimensions, DOAJ (Directory of Open Access Journals), EBSCO, EconBiz, EconLit, Google Scholar, Hrčak, J-Gate, JournalTOCs, KESLI-NDSL (Korean National Discovery for Science Leaders), MyScienceWork, Naviga (Softweco), Primo Central (ExLibris), ProQuest, Publons, QOAM (Quality Open Access Market), ReadCube, RePEc (Research Papers in Economics), Semantic Scholar, Summon (Serials Solutions), TDNet, Ulrich's Periodicals Directory, WanFang Data, WorldCat (OCLC).

ISSN 1849 – 8531

e-ISSN 2459 – 5616

UDK 519.20 (033)

DOI 10.62366/crebss

Croatian Review of Economic, Business and Social Statistics

Croatian Review of Economic, Business and Social Statistics (CREBSS) is an open access journal published semiannually since 2015, under the [CC BY-NC-ND 4.0](#) license (Attribution-NonCommercial-NoDerivatives). The former publisher of the CREBSS journal was Walter de Gruyter GmbH (Sciendo). Starting from the second issue 2023 (Vol. 9, No. 2) the publisher and the owner is Croatian Statistical Association (CSA). All submitted manuscripts undergo a rigorous and independent double-blinded peer-review process, evaluating articles originality, scientific contribution, clarity, and relevance to the scope of the journal. There is no submission fee or any other article processing charges associated with this journal.

Aims and Scope

The aim of the journal is to provide high quality scientific articles (original research papers, review papers or preliminary communications) which contribute to theoretical and applied statistics. Published articles can be written on English or Croatian. It targets a very wide audience of statisticians, whether they are scientists, professionals, academics or students, influencing modern economy, business and society. Its goal is to be multidisciplinary in nature, promoting the ideas between substantive research areas and exchanging experience and knowledge among statisticians. The scope of the journal is focused, but not limited to the following topics: data mining and machine learning, econometrics, business statistics, biostatistics, social and behavioral statistics, experimental and survey designs, environmental and spatial statistics, teaching statistics and official statistics.

Publication Ethics and Malpractice Statement

Croatian Statistical Association, as the publisher of the CREBSS journal, is committed in ensuring the integrity, transparency and ethical behavior of all parties involved in publication process: authors, editors, reviewers, and the publisher itself. Publication ethics and malpractice statement is based on Committee on Publication Ethics (COPE) Best Practice Guidelines for Journal Editors. Before submitting or reviewing a paper read [Publication Ethics and Malpractice Statement](#). Upon acceptance of an article, all co-authors are required to sign an agreement, consenting to transfer the publishing rights to the CSA, agreeing to retain copyrights and warranting that the article is original, authored by the given author(s), and has not been previously published or submitted elsewhere for publication before its acceptance.

Open Access

Under the Creative Commons Attribution-NonCommercial-NoDerivs license, the users are free to download and share (read, copy, print, distribute or search) the full texts and transmit the contributions of the articles as long as they attribute the author(s) for the original creation, but they can't change it in any way or use it commercially. This is in accordance with the BOAI definition of open access. Open access to the full texts of all articles is enabled through [Open Journal System](#), journal [Homepage](#) and portal [Hrčak](#) (network of Croatian scientific and professional journals).

Privacy Statement

The names and e-mail addresses in this journal will be used exclusively for the stated purposes and will not be made available for any other purpose or to any other party.

Hrvatska revija ekonomiske, poslovne i društvene statistike

Hrvatska revija ekonomiske, poslovne i društvene statistike (CREBSS) je časopis otvorenog pristupa, koji se polugodišnje objavljuje od 2015. godine, pod [CC BY-NC-ND 4.0](#) licencijom (Atribucija–Nekomercijalno–NemaDerivata). Nekadašnji izdavač časopisa CREBSS je bio Walter de Gruyter GmbH (Sciendo). Počevši od drugog izdanja u 2023. godini (godište 9, svešćić 2) nakladnik i vlasnik časopisa je Hrvatsko statističko društvo (HSD). Svi dostavljeni rukopisi prolaze strogu i neovisnu dvostruko-slijepu recenziju, ocjenjujući originalnost članaka, znanstveni doprinos, jasnoću i relevantnost djelokruga časopisa. Ne postoji naknada za predaju rukopisa niti bilo koji drugi troškovi obrade članka povezani s ovim časopisom.

Ciljevi i djelokrug

Cilj časopisa je pružiti visokokvalitetne znanstvene članke (izvorne istraživačke radove, pregleđne radove ili prethodna priopćenja) koji doprinose teorijskoj i primjenjenoj statistici. Objavljeni članci mogu biti napisani na engleskom ili hrvatskom jeziku. Časopis je usmjeren na vrlo široku publiku statističara, bilo da su oni znanstvenici, stručnjaci, akademici ili studenti, koji utječu na moderno gospodarstvo, poslovanje i društvo u cjelini. Cilj mu je biti multidisciplinare prirode, promicati ideje između značajnih istraživačkih područja te razmjenjivati iskustva i znanja među statističarima. Djelokrug časopisa je fokusiran, ali nije ograničen na sljedeće teme: rudarenje podacima i strojno učenje, ekonometrija, poslovna statistika, biostatistika, društvena i bihevioralna statistika, eksperimentalni dizajni i dizajni anketa, statistika okoliša i prostorna statistika, statistika u obrazovanju i službena statistika.

Izdavačka etika i znanstvena čestitost

Hrvatsko statističko društvo, kao izdavač časopisa CREBSS, zalaže se osigurati integritet, transparentnost i etičnost svih strana uključenih u proces objavljivanja: autora, urednika, recenzentata i samog izdavača. Dokument o izdavačkoj etici i znanstvenoj čestitosti temelji se na smjernicama najbolje prakse za urednike časopisa Odbora za etiku objavljivanja (COPE). Prije slanja ili recenziranja radova pročitajte [Dokument o izdavačkoj etici i znanstvenoj čestitosti](#). Nakon prihvaćanja članka, svi suautori dužni su potpisati ugovor kojim pristaju prenijeti prava na objavljivanje HSD-u, slažu se zadržati autorska prava te jamče da je članak originalan, napisan od strane navedenih autora i da nije prethodno objavljen ili predan na objavljivanje drugdje prije njegovog prihvaćanja.

Otvoreni pristup

Pod Creative Commons licencijom Atribucija–Nekomercijalno–NemaDerivata korisnicima je dopušteno preuzimanje i dijeljenje (čitanje, kopiranje, ispisivanje, distribuiranje ili pretraživanje) punih tekstova te prenošenje doprinosa članaka, pod uvjetom da atribuiraju autora/e za originalno stvaranje, ali ih ne smiju mijenjati ni koristiti u komercijalne svrhe. To je u skladu s BOAI definicijom otvorenog pristupa. Otvoren pristup cjelovitim tekstovima svih radova omogućen je putem sustava [Open Journal System](#), odredišne [stranice časopisa](#) i portala [Hrčak](#) (mrežna stranica hrvatskih znanstvenih i stručnih časopisa).

Izjava o privatnosti

Imena i e-mail adrese u ovom časopisu koristit će se isključivo u navedene svrhe i neće se upotrijebiti ni u koje druge svrhe niti će biti dostupni bilo kojoj drugoj strani.

Editorial Office / Uredništvo

Chief Editors / Glavni urednici: Anita Čeh Časni
Josip Arnerić

Associate Editors / Pomoćni urednici: Sabina Hodžić
Milan Deskar-Škrbić
Irena Palić
Luka Šikić
Berislav Žmuk

Technical Editor: Josip Arnerić

Design: Josipa Filić
Josip Arnerić

Address and contact / adresa i kontakt

Croatian Statistical Association (CSA) / Hrvatsko Statističko Društvo (HSD)
Trg J. F. Kennedyja 6, HR-10000 Zagreb, Croatia

URL: <https://hsd-stat.hr/journal>
e-mail: journal@hsd-stat.hr

Editorial Board / Urednički odbor

JOSIP ARNERIĆ, University of Zagreb, Faculty of Economics & Business, Zagreb Croatia
MOJCA BAVDAŽ, University of Ljubljana, Faculty of Economics, Slovenia
PENELope BIDGOOD, Kingston University, Faculty of Science, Engineering & Computing, UK
LYNNE BILLARD, University of Georgia, Department of Statistics, Athens, USA
VESNA BUCEVSKA, Ss. Cyril and Methodius University in Skopje, North Macedonia
ANITA ČEH ČASNI , University of Zagreb, Faculty of Economics & Business, Croatia
LUCA DI GENNARO SPLENDORE, National Statistics Office Malta, Valletta, Malta
MARGARETA GARDIJAN KEDŽO, Univ. of Zagreb, Faculty of Economics & Business, Croatia
MILAN DESKAR-ŠKRBIĆ, Zagreb School of Economics and Management, Croatia
SAMO DROBNE, University of Ljubljana, Faculty of Civil and Geodetic Engineering, Slovenia
DAVOR GALINEC, Croatian National Bank, Zagreb, Croatia
AMANDA L. GOLBECK, University of Arkansas for Medical Sciences, USA
SABINA Hodžić, University of Rijeka, Faculty of Tourism & Hospitality Management, Croatia
SAŠA JAKŠIĆ, University of Zagreb, Faculty of Economics & Business, Croatia

VELJKO JEREMIĆ, University of Belgrade, Faculty of Organizational Sciences, Serbia
ANAMARIJA JAZBEC, University of Zagreb, Faculty of Forestry, Croatia
GINDRA KASNAUSKIENÉ, Vilnius University, Faculty of Economics, Lithuania
VEDRAN KOJIĆ, University of Zagreb, Faculty of Economics & Business, Croatia
PÉTER KOVÁCS, University of Szeged, Faculty of Economics & Business Admin., Hungary
BARBARA KOWALCZYK, SGH Warsaw School of Economics, Warsaw, Poland
MARIA KRÁLOVÁ, Masaryk University, Faculty of Economics & Admin., Czech Republic
ANITA LEE-POST, University of Kentucky, School of Management, Decision Science & Information Systems Area, Lexington, Kentucky, USA
GORAN LEŠAJA, Georgia Southern University, College of Science & Mathematics, USA
MILICA M. MARIĆIĆ, University of Belgrade, Faculty of Organizational Sciences, Serbia
ANDRIJA MIHOĆI, Brandenburg University of Technology Cottbus – Senftenberg, Germany
JOSIP MIKULIĆ, University of Zagreb, Faculty of Economics & Business, Croatia
DANIJEL NESTIĆ, The Institute of Economics, Zagreb, Croatia
BLAGICA NOVKOVSKA, University of Tourism & Management in Skopje, North Macedonia
IRENA PALIĆ, University of Zagreb, Faculty of Economics & Business, Croatia
SANJA PEKOVIĆ, University of Montenegro, Podgorica, Montenegro
SNJEŽANA PIVAC, University of Split, Faculty of Economics, Business & Tourism, Croatia
JUDIT POÓR, University of Pannonia, Georgikon Faculty, Keszthely, Hungary
YICHEN QIN, University of Cincinnati, Carl H. Lindner College of Business, Ohio, USA
EMINA RESIĆ, Univ. of Sarajevo, School of Economics & Business, Bosnia and Herzegovina
PETAR SORIĆ, University of Zagreb, Faculty of Economics & Business, Croatia
LUKA ŠIKIĆ, Croatian Catholic University, Zagreb, Croatia
ANA ŠTAMBUK, University of Rijeka, Faculty of Economics, Croatia
JOÃO VARAJÃ, University of Trás-os-Montes and Alto Douro, Portugal
DAVOR ZORIĆIĆ, University of Zagreb, Faculty of Economics & Business, Croatia
BERISLAV ŽMUK, University of Zagreb, Faculty of Economics & Business, Croatia