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FAKULTET ORGANIZACIONIH NAUKA



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UNIVERZITET U BEOGRADU
FAKULTET ORGANIZACIONIH NAUKA



SPIN '23

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DIGITALNI I ZELENI RAZVOJ PRIVREDE

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Urednici

prof. dr Nataša Petrović
doc. dr Marko Ćirović

Izdavač

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DIGITAL AND GREEN ECONOMY DEVELOPMENT

November 6th – 7th, 2023, Belgrade, Serbia

PROCEEDINGS

SPIN
'23



UNIVERSITY OF BELGRADE
FACULTY OF ORGANIZATIONAL SCIENCES



OPERACIONI MENADŽMENT
UNIVERZITET U BEOGRADU
FAKULTET ORGANIZACIONIH NAUKA

**XIV Conference of Business and Science SPIN'23
DIGITAL AND GREEN ECONOMY DEVELOPMENT**

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Editors

Nataša Petrović, PhD, Full professor
Marko Ćirović, PhD, Assistant professor

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SPIN je naučni i stručni skup koji još od 2003. godine organizuje Centar za operacioni menadžment Univerziteta u Beogradu – Fakulteta organizacionih nauka, u saradnji sa Privrednom komorom Srbije i Privrednom komorom Beograda. Ove godine skup je posvećen mogućnostima razvoja privrede zasnovanim na savremenim digitalnim rešenjima, kao i na zelenom razvoju kao jedinom mogućem i odgovornom razvoju koji omogućava održivo upravljanje prirodnim dobrima, bez narušavanja tananog ekosistemskog ekvilibrijuma na kojem se zasniva i naše samo ljudsko bitisanje i blagostanje.

XIV SPIN pod nazivom „Digitalni i zeleni razvoj privrede“ zabeležio je preko 100 naučnih radova i gostujućih predavanja, što čini rekordni broj radova na SPIN-u. Ovome treba dodati da je u njihovom pisanju, učestvovalo 295 autora i preko 30 institucija iz sedam zemalja – Srbije, Severne Makedonije, Hrvatske, Bosne i Hercegovine, Slovenije, Velike Britanije i Grčke.

Tema ove konferencije nije bila samo skup izabranih i aktuelnih reči; ona je poziv na akciju, poziv na transformaciju i poziv da se napravi razlika i neophodna promena.

Zato skup podrazumeva razmatranje ključnih tema, istraživanje novih koncepata, otkrivanje rešenja, postavljanje temelja za promene i sejanje semena napretka koje će povezati akademiju i privredu.

Svako od prisutnih, bilo da je bio govornik, panelista, učesnik ili gost doprineo je skupu kroz svoju jedinstvenu perspektivu i stručnost, obogaćujući ovu konferenciju kroz prezentaciju rezultata naučno-istraživačkih radova, učešća u panel diskusijama i prikaza primera dobre poslovne prakse. Na ovaj način struka i akademija su doprineli odgovornom i neophodnom digitalnom i zelenom razvoju kako srpske privrede, tako i privrede regiona.

U Zborniku radova XIV Skupa privrednika i naučnika SPIN'23 su radovi koji su recenzirani i prihvaćeni za izlaganje na Skupu, a raspoređeni su u sledeće tematske oblasti:

- Cirkularna i bioekonomija
- Ekološki menadžment i zelena tranzicija
- Finansijski menadžment, revizija i računovodstvo
- Informacioni sistemi preduzeća
- Interdisciplinarni projekti kao nosilac razvoja privrede
- Kvantitativne metode u operacionom menadžmentu
- Lin i kaizen menadžment

Digitalni i zeleni razvoj privrede

- Menadžment kvaliteta i standardizacija
- Menadžment tehnologije i održivi razvoj
- Organizaciono restrukturiranje i upravljanje promenama
- Primena veštačke inteligencije u poslovanju
- Upravljanje inovacijama
- Upravljanje ljudskim resursima
- Upravljanje logistikom i lancima snabdevanja
- Upravljanje marketingom i komunikacijama
- Upravljanje poslovnim procesima
- Upravljanje proizvodnjom i uslugama
- Upravljanje projektima

Zbornik radova sadrži i radove plenarnih i uvodnih predavača XIV Skupa privrednika i naučnika SPIN'23, kojima se posebno zahvaljujemo za učešće na Skupu.

Beograd, 6. novembar 2023.

Urednici:



prof. dr Nataša Petrović
predsednica Programskog odbora



doc. dr Marko Ćirović
predsednik Organizacionog odbora

FOREWORD

SPIN is a scientific and professional gathering organized since 2003 by the Center for Operational Management of the University of Belgrade - Faculty of Organizational Sciences, in cooperation with the Chamber of Commerce of Serbia and the Chamber of Commerce of Belgrade. This year, the conference is dedicated to the possibilities of economic development based on modern digital solutions, as well as green development as the only possible and responsible development that enables sustainable management of natural resources, without disrupting the delicate ecosystem equilibrium on which our very human existence and well-being is based.

XIV SPIN titled "Digital and Green Economic Development" recorded over 100 scientific papers and guest lectures, which is a record number of papers at SPIN. It should be added that 295 authors and over 30 institutions from seven countries – The Republic of Serbia, North Macedonia, Croatia, Bosnia and Herzegovina, Slovenia, Great Britain and Greece - participated in the conference.

The theme of this conference was not only a collection of selected and current words; it is a call to action, a call to transformation and a call to make a difference and necessary change.

That's why the conference involved discussing key topics, researching new concepts, discovering solutions, laying the foundations for change and sowing the seeds of progress that will connect academia and the economy.

Each of those that participated, whether they were a speaker, panelist, participant or guest, contributed to the conference through their unique perspective and expertise, enriching this event through the presentation of the results of scientific research works, participation in panel discussions and presentation of examples of good business practice. In this way, the profession and the academy have contributed to the responsible and necessary digital and green development of both the Serbian economy and the economy of the region.

In the Proceedings of the XIV Business and Science Conference SPIN'23, there are papers that were reviewed and accepted for presentation at the conference, and they are distributed in the following thematic areas:

- Circular and bioeconomy
- Environmental management and green transition
- Financial management, audit and accounting
- Company information systems
- Interdisciplinary projects as a carrier of economic development
- Quantitative methods in operational management

Digitalni i zeleni razvoj privrede

- Lin and kaizen management
- Quality management and standardization
- Technology management and sustainable development
- Organizational restructuring and change management
- Application of artificial intelligence in business
- Innovation management
- Management Human Resources
- Logistics and Supply Chain Management
- Marketing and Communications Management
- Business Process Management
- Production and Service Management
- Project Management

The collection of papers also contains the papers of the plenary and introductory lecturers of the XIV Business and Science Conference SPIN'23, to whom we would like to thank for their participation in the Meeting.

Belgrade, November 6th, 2023.

Editors:



Nataša Petrović PhD, Full professor
President of the Program Board



Marko Ćirović PhD, Assistant professor
President of the Organizational Board

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Centar za operacioni menadžment Fakulteta organizacionih nauka Univerziteta u Beogradu se zahvaljuje sledećim institucijama, kompanijama i pojedincima koji su podržali realizaciju XIV Skupa privrednika i naučnika SPIN'23:

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SADRŽAJ

PLENARNA PREDAVANJA

THE NEUROSCIENCE OF COMMUNICATING SUSTAINABILITY <i>Nikolaos Dimitriadis</i>	2
FOSTERING DIGITAL EQUITY: AN EXPLORATION OF PUBLIC INTEREST TECHNOLOGY <i>Saša Drezgić</i>	3
EXPORT, EXPORT DIVERSIFICATION AND EXPORT COMPOSITION OF WESTERN BALKAN COUNTRIES: FUTURE PERSPECTIVES AND POLICY RECOMMENDATIONS <i>Darko Lazarov, Branko Azeski</i>	4
VEŠTAČKA INTELIGENCIJA I BIHEVIORALNA EKONOMIJA KAO ODGOVOR NA IZAZOVE ODRŽIVOG RAZVOJA <i>Sanja Radlovački</i>	5

UVODNA PREDAVANJA

ULOGA MES-A ZA PODRŠKU U IMPLEMENTACIJI PRAKSI CIRKULARNE EKONOMIJE THE ROLE OF MES IN SUPPORTING THE IMPLEMENTATION OF CIRCULAR ECONOMY PRACTICES <i>Slobodan Antić</i>	7
SHADOW IT U ERI DIGITALIZACIJE DIGITAL ERA: WHAT WE DO IN THE SHADOWS <i>Lena Đorđević Milutinović</i>	16
STUDIJA SLUČAJA DIGITALIZACIJE NACIONALNOG TESTIRANJA: UPRAVLJANJE ORGANIZACIONIM IZAZOVIMA CASE STUDY OF NATIONAL TESTING DIGITALIZATION: MANAGING ORGANIZATIONAL CHALLENGES <i>Miloš Jevtić</i>	26
METODE ISTRAŽIVANJA ODRŽIVOG UPRAVLJANJA LJUDSKIM RESURSIMA U ERI DIGITALIZACIJE	35

RESEARCH METHODS FOR SUSTAINABLE HRM IN THE ERA OF DIGITALIZATION <i>Ivana Kovačević</i>	
MENADŽMENT TEHNOLOGIJE I ODRŽIVI RAZVOJ TECHNOLOGY MANAGEMENT AND SUSTAINABLE DEVELOPMENT <i>Jasna Petković</i>	43
EFFECT OF AIR POLLUTED WITH PARTICULATE MATTER (PM) ON CARDIOVASCULAR DISEASES UTICAJ VAZDUHA ZAGAĐENOG ČESTICAMA (PM) NA KARDIOVASKULARNE BOLESTI <i>Marjan Senegačnik</i>	52
ZELENI RAZVOJ INDUSTRIJSKOG INŽENJERSTVA GREEN DEVELOPMENT OF INDUSTRIAL ENGINEERING <i>Barbara Simeunović</i>	63

PROGRAMSKE OBLASTI

Cirkularna i bioekonomija

ZNAČAJ EFIKASNOG POSLOVANJA KOMPANIJA KOJE PRUŽAJU ENERGETSKE USLUGE THE IMPORTANCE OF EFFICIENT BUSINESS OF ENERGY SERVICE COMPANIES <i>Nemanja Backović, Bojan Ilić</i>	75
CIRKULARNA EKONOMIJA: KONCEPT, EU INICIJATIVE I PERSPEKTIVE SRBIJE CIRCULAR ECONOMY: CONCEPT, EU INITIATIVES AND PERSPECTIVES OF SERBIA <i>Nenad Branković</i>	83
POTENCIJAL CIRKULARNE EKONOMIJE ZA SMANJENJE EKOLOŠKIH PROMENA I ODRŽIVOST POTENTIAL OF CIRCULAR ECONOMY FOR REDUCING OF ENVIRONMENTAL CHANGES & SUSTAINABILITY <i>Nenad Branković</i>	92

SOJINE LJUSKE: JEFTIN I SVESTRANI NUSPROIZVOD INDUSTRIJE SOY HULLS: INEXPENSIVE AND VERSATILE INDUSTRY BY- PRODUCT <i>Ivana Gazikalović, Sonja Jakovetić Tanasković, Jelena Mijalković, Nataša Šekuljica, Nevena Luković, Zorica Knežević-Jugović</i>	101
LIST KAO ALTERNATIVNI IZVOR PROTEINA - KA CIRKULARNOJ BIOEKONOMIJI LEAF AS AN ALTERNATIVE PROTEIN SOURCE - TOWARD CIRCULAR BIOECONOMY <i>Sonja Jakovetić Tanasković, Nataša Šekuljica, Jelena Mijalković, Ivana Gazikalović, Nevena Luković, Zorica Knežević-Jugović</i>	109
ULOGA I ZNAČAJ LOGISTIKE U OKVIRU MODELA CIRKULARNE EKONOMIJE THE ROLE AND IMPORTANCE OF LOGISTICS IN THE FRAMEWORK OF THE CIRCULAR ECONOMY <i>Tijana Milanović</i>	118
MAPPING THE CIRCULAR ECONOMY LANDSCAPE: A BIBLIOMETRIC ODYSSEY MAPIRANJE OBLASTI CIRKULARNE EKONOMIJE: BIBLIOMETRIJSKA ODISEJA <i>Nataša Petrović, Flavio Pinheiro Martins, Aleksandar Jovović</i>	125
POTENCIJALI I SLABOSTI SRPSKE TEKSTILNE INDUSTRIJE SA PRIMENOM CIRKULARNE EKONOMIJE PO UZORU NA EVROPSKU UNIJU THE OPPORTUNITIES AND WEAKNESSES OF SERBIAN TEXTILE INDUSTRY BASED ON THE CIRKULAR ECONOMY APPROACH OF THE EUROPEAN UNION <i>Olga Radovanović</i>	134
ISTRAŽIVANJE VEŠTINA ZA TRANSFORMACIJU KA ZELENOJ PRIVREDI EXPLORING SKILLS FOR TRANSFORMATION TOWARDS A GREEN ECONOMY <i>Milan Veselinov, Vojislav Vučićević</i>	144

ODREĐIVANJE CENE EMISIJE UGLJENIKA U ZEMLJAMA ZAPADNOG BALKANA CARBON PRICING IN THE WESTERN BALKANS COUNTRIES <i>Aleksandar Vićentijević, Sandra Jednak, Miloš Parežanin, Dragana Kragulj</i>	153
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Ekološki menadžment i zelena tranzicija

UPRAVLJANJE OTPADOM U HUMANITARNIM OPERACIJAMA: PREGLED LITERATURE WASTE MANAGEMENT IN HUMANITARIAN OPERATIONS: A REVIEW ARTICLE <i>Marina Bosiljčić</i>	162
VLAŽNA STANIŠTA ADA HUJE I MOGUĆNOSTI NJIHOVE EKOLOŠKE REVITALIZACIJE WET HABITATS OF ADA HUJA AND THE POSSIBILITIES OF THEIR ECOLOGICAL REVITALIZATION <i>Irena Čonić, Marko Ćirović</i>	169
ODRŽIVI DATA CENTRI: EKOLOŠKI ORIJENTISANI PRISTUPI U UPRAVLJANJU IT INFRASTRUKTUROM SUSTAINABLE DATA CENTERS: ECO-FRIENDLY APPROACHES IN IT INFRASTRUCTURE <i>Boris Jovanović, Teodora Aćimović, Minja Marinović, Nikola Cvetković</i>	177
UPRAVLJANJE OTPADOM U INDUSTRIJI PROIZVODNJE PLASTIKE WASTE MANAGEMENT IN THE PLASTICS MANUFACTURING INDUSTRY <i>Ana Kalanj, Marko Ćirović</i>	184
IZAZOVI I UTJECAJI DRUŠTVENIH INOVACIJA NA ZELENI RAZVOJ GRADOVA CHALLENGES AND IMPACTS OF SOCIAL INNOVATIONS ON THE GREEN DEVELOPMENT OF CITIES <i>Mirjana Kovačić, Nataša Petrović, Ana Perić Hadžić</i>	193
UPOTREBA SOLARNIH PANELA U SMANJENJU KARBONSKOG OTISKA USING SOLAR PANELS TO REDUCE CARBON FOOTPRINT <i>Stefan Lazin, Marko Ćirović</i>	202

Digitalni i zeleni razvoj privrede

PAMETNI GRADOVI I ZELENA EKONOMIJA – PRIMJER GRADA RIJEKA SMART CITIES AND GREEN ECONOMY – THE EXAMPLE OF THE RIJEKA CITY <i>Lana Maček, Josip Čičak, Saša Drezgic</i>	210
PERCEPCIJA POTROŠAČA O ZELENOM MARKETINGU: STUDIJA SLUČAJA GENERACIJA “Z” CONSUMER PERCEPTION OF GREEN MARKETING: A CASE STUDY OF GENERATION “Z” <i>Dušan Mančić</i>	219
CORPORATE ENVIRONMENTAL AWARENESS LEVEL IN SERBIAN HEALTHCARE SYSTEM NIVO KORPORATIVNE EKOLOŠKE SVESTI U ZDRAVSTVENOM SISTEMU SRBIJE <i>Tanja Milić, Dragica Milić</i>	228
ANGAŽOVANJE VOJSKE U PRIRODNIM KATASTROFAMA MILITARY ENGAGEMENT IN NATURAL DISASTERS <i>Aleksandar Petrović</i>	237
EKOLOŠKA ODRŽIVOST I UNIVERZITET: STUDIJA SLUČAJA „FAZON“ ENVIRONMENTAL SUSTAINABILITY AND UNIVERISTY: A CASE STUDY “FAZON” <i>Jelena Andreja Radaković, Nemanja Milenković, Aleksandar Đoković, Katarina Poparić, Tijana Milonjić</i>	245
MOGUĆNOSTI IMPLEMENTACIJE TEHNOLOGIJA U INICIJATIVI NET ZERO TECHNOLOGY IMPLEMENTATION POSSIBILITIES IN THE NET ZERO INITIATIVE <i>Katarina Rafa, Jasna Petković</i>	253
EKOLOŠKI ASPEKTI PROJEKTOG FINANSIRANJA OBNOVLJIVIH IZVORA ENERGIJE ENVIRONMENTAL ASPECTS OF PROJECT FINANCING OF RENEWABLE ENERGY SOURCES <i>Željko Spasenić, Dragana Makajić-Nikolić</i>	261

PREMA ZELENOJ PROMENI: RODNA RAVNOPRAVNOST NIJE SAMO IGRA BROJEVA 268
TOWARDS THE GREEN SHIFT: GENDER EQUALITY ISN'T JUST A NUMBERS GAME
Danilo Veličkov, Jelena Andreja Radaković, Katarina Velemir

ISPITIVANJE NIVOA EKOLOŠKE SVESTI KOD STANOVNIKA KRUŠEVCA 276
EXAMINATION OF THE LEVEL OF ENVIRONMENTAL AWARENESS AMONG THE RESIDENTS OF KRUŠEVAC
Milan Zajić, Aleksandar Višnjić, Tamara Jovanović, Dragan Bogdanović

Finansijski menadžment, revizija i računovodstvo

NEFINANSIJSKO IZVEŠTAVANJE U FUNKCIJI EKOLOŠKE ODRŽIVOSTI 287
NON-FINANCIAL REPORTING IN A FUNCTION OF ENVIRONMENTAL SUSTAINABILITY
Veljko Dmitrović, Miroslav Čavlin, Nemanja Jakovljević

ZELENI INTELEKTUALNI KAPITAL I RAČUNOVODSTVO ZAŠTITE ŽIVOTNE SREDINE 296
GREEN INTELLECTUAL CAPITAL AND ENVIRONMENTAL ACCOUNTING
Marko Milašinović, Stefan Milojević, Snežana Knežević, Malči Grivec

KARBONSKO RAČUNOVODSTVO I CIRKULARNA EKONOMIJA 305
CARBON ACCOUNTING AND CIRCULAR ECONOMY
Kosana Vičentijević, Nataša Simeunović

Informacioni sistemi preduzeća

PRIMENA REAKTIVNOG PROGRAMIRANJA KORIŠĆENJEM RXJAVA BIBLIOTEKE U RAZVOJU SOFTVERA ZA PRIVREDU 315
APPLICATION OF REACTIVE PROGRAMMING USING THE RXJAVA LIBRARY IN THE DEVELOPMENT OF SOFTWARE FOR THE ECONOMY
Milica Bačić, Ilija Antović, Siniša Vlajić

GENERISANJE ŠTAMPANE DOKUMENTACIJE U MODULU ZA POLISE OSIGURANJA SAP SISTEMA GENERATION OF PRINTED DOCUMENTATION IN THE INSURANCE POLICIES MODULE OF THE SAP SYSTEM <i>Katarina Cekić, Nemanja Tucović, Ognjen Pantelić, Milan Resimić, Aleksandra Mitrović</i>	325
PRIMER ODRŽIVE SOFTVERSKJE STRUKTURE KORIŠĆENJEM ABSTRACT FACTORY PATERNA EXAMPLE OF SUSTAINABLE SOFTWARE STRUCTURE USING ABSTRACT FACTORY PATTERN <i>Ana Korunović, Siniša Vlajić</i>	335
SOFTVERSKI SISTEM PRIJAVE KONFERENCIJA RAZVIJEN BUILDER PATERNOM SOFTWARE CONFERENCE REGISTRATION SYSTEM DEVELOPED USING THE BUILDER PATTERN <i>Dragica Ljubisavljević, Siniša Vlajić</i>	343
PRIMENA BLOCKCHAIN TEHNOLOGIJE ZA VERIFIKACIJU FAKULTETSKIH DIPLOMA APPLICATION OF BLOCKCHAIN TECHNOLOGY FOR VERIFYING COLLEGE DIPLOMAS <i>Dušan Mitrović, Dejan Simić</i>	352
PRETNJE I BEZBEDNOST U IOT-U: PREGLED LITERATURE THREATS AND SECURITY IN IOT: AN OVERVIEW <i>Maja Miljanić, Bojan Jovanović</i>	360
CHATGPT KAO STUDENTSKI POMOĆNIK U PROGRAMIRANJU CHATGPT AS A STUDENT SUPPORT TOOL IN PROGRAMMING <i>Jelica Stanojević, Miroslav Minović, Miloš Milovanović, Dejan Simić</i>	370

Interdisciplinarni projekti kao nosilac razvoja privrede

KONCEPT PREDIKTIVNOG ODRŽAVANJA 4.0(5.0): DEFINISANJE DIJAGNOSTIČKOG CENTRA THE CONCEPT OF PREDICTIVE MAINTENANCE 4.0(5.0): DEFINING THE DIAGNOSTIC CENTER <i>Predrag Jovančić, Aleksandar Madžarević, Stevan Đenadić, Filip Miletić, Miroslav Crnogorac</i>	379
--	-----

UPRAVLJANJE PROJEKTIMA U ERI VEŠTAČKE INTELIGENCIJE: NOVI HORIZONTI EFIKASNOSTI PROJECT MANAGEMENT IN THE ERA OF ARTIFICIAL INTELLIGENCE: NEW HORIZONS OF EFFICIENCY <i>Sara Stojiljković, Vladimir Obradović, Vladana Stepanović</i>	388
--	-----

INTERDISCIPLINARNI PRISTUP MENADŽMENTU INTERDISCIPLINARY APPROACH TO MANAGEMENT <i>Marija Todorović, Vladimir Obradović, Sara Stojiljković</i>	396
--	-----

ODRŽIVO UPRAVLJANJE PROJEKTIMA: KAKO PREMOSTITI JAZ OD STRATEŠKOG DO OPERATIVNOG NIVOA? SUSTAINABLE PROJECT MANAGEMENT: HOW TO BRIDGE THE GAP FROM STRATEGY TO OPERATIONS? <i>Danijela Toljaga-Nikolić, Marija Todorović, Vladana Stepanović</i>	403
--	-----

Kvantitativne metode u operacionom menadžmentu

SPC – RAPS MODEL ZA PODRŠKU U ODLUČIVANJU: IZBOR UTOVARNO – TRANSPORTNE OPREME SPC – RAPS DECISION SUPPORT MODEL: SELECTION OF LHD EQUIPMENT <i>Miloš Gligorić, Saša Jovanović, Katarina Urošević, Zoran Gligorić, Dževdet Halilović</i>	412
--	-----

PROCENA RIZIKA U NUKLEARNOJ INDUSTRIJI RISK ASSESSMENT IN THE NUCLEAR INDUSTRY <i>Ana Milićević, Dragana Makajić-Nikolić</i>	420
--	-----

PROCENA LOKACIJA OBJEKATA ZA ODBRANU OD POPLAVA PRIMENOM FUZZY SKUPOVA I OPA ALGORITMA ASSESSMENT OF FLOOD DEFENSE OBJECT LOCATIONS USING FUZZY SETS AND OPA ALGORITHM <i>Dragan Pamučar, Nataša Petrović, Darko Božanić, Jelena Andreja Radaković</i>	429
--	-----

Lin i kaizen menadžment

UTICAJ ELIMINISANJA LIN RASIPANJA NA ZELENA RASIPANJA EFFECT OF LEAN WASTE ELIMINATION ON GREEN WASTE <i>Milena Gatić, Barbara Simeunović, Ivona Jovanović</i>	440
--	-----

Digitalni i zeleni razvoj privrede

PRIMENA LIN ŠEST SIGMA PRISTUPA U GRAĐEVINARSTVU APPLICATION OF LEAN SIX SIGMA APPROACH IN CONSTRUCTION <i>Milica Jačović, Dragana Stojanović, Ivan Tomašević</i>	449
PRIMENA GEMBA KAIZEN PRISTUPA U INDUSTRIJI PRERADE BAKRA APPLICATION OF GEMBA KAIZEN APPROACH IN COPPER MILL <i>Milica Lazić, Dragana Stojanović</i>	458
LIN PRISTUP U FINANSIJSKOM IZVEŠTAVANJU LEAN APPROACH IN FINANCIAL REPORTING <i>Anja Stanković, Dragana Stojanović, Dragoslav Slović</i>	467
KORACI U IMPLEMENTACIJI LEAN METODOLOGIJE STEPS IN THE IMPLEMENTATION OF LEAN METHODOLOGY <i>Daria Vidović, Nemanja Sremčev, Bojan Jerinić</i>	475

Menadžment kvaliteta i standardizacija

INFRASTRUKTURA KVALITETA ZA CIRKULARNU EKONOMIJU QUALITY INFRASTRUCTURE FOR THE CIRCULAR ECONOMY <i>Sara Dimitrijević, Jovan Filipović, Jelena Ruso</i>	485
STANDARDI I MODELI OBEZBEĐIVANJA KVALITETA U PREHRAMBENOJ INDUSTRIJI STANDARDS AND MODELS OF QUALITY ASSURANCE IN THE FOOD INDUSTRY <i>Milena Tokić, Mladen Đurić</i>	495
SPECIFIČNOSTI STANDARDIZACIJE U MALIM I SREDNJIM PREDUZEĆIMA SPECIFICITIES OF STANDARDISATION IN SMALL AND MEDIUM-SIZED ENTERPRISES <i>Biljana Tošić, Ivana Mijatović</i>	503

Menadžment tehnologije i održivi razvoj

POTENCIJAL ODRŽIVOG RAZVOJA U GRADOVIMA POTENTIAL OF SUSTAINABLE DEVELOPMENT IN CITIES <i>Stefan Mosurović, Sanja Marinković</i>	513
--	-----

DIGITALNA TRANSFORMACIJA POLJOPRIVREDE: ULOGA DRŽAVE U RAZVOJU AGTECH EKOSISTEMA REPUBLIKE SRBIJE 521
DIGITAL TRANSFORMATION OF AGRICULTURE: THE ROLE OF GOVERNMENT IN SERBIAN AGTECH ECOSYSTEM DEVELOPMENT
Jovana Rakičević, Miloš Pajić, Vladimir Radovanović, Nemanja Milanović

ODRŽIVI RAZVOJ I JAVNO ZDRAVLJE 530
SUSTAINABLE DEVELOPMENT AND PUBLIC HEALTH
Kristina Seke, Verica Jovanović

Organizaciono restrukturiranje i upravljanje promenama

PROMENE U PROCESU OBRAZOVANJA KROZ DIGITALNI OBRAZOVNI SADRŽAJ - ANALIZA ZADOVOLJSTVA POLAZNIKA I RAZLIKA MEĐU POLOVIMA 539
CHANGES IN EDUCATION PROCESS THROUGH DIGITAL EDUCATION CONTENT – SATISFACTION ANALYSIS AND DIFFERENCES BETWEEN GENDERS
Đorđe Aleksandrović, Mladen Čudanov

ORGANIZACIONI ASPEKTI DIGITALNE TRANSFORMACIJE 547
ORGANIZATIONAL ASPECTS OF DIGITAL TRANSFORMATION
Jovan Krivokapić, Miloš Milosavljević, Željko Spasenić

Primena veštačke inteligencije u poslovanju

INTEGRACIJA DUBOKOG UČENJA U KLASIFIKACIJI DINAMOGRAMA 556
INTEGRATION OF DEEP LEARNING DYNAMOGRAPH CLASSIFICATION
Miloš Bijanić, Bojan Martinović, Andrija Petrović, Boris Delibasić

MODELOVANJE STOPE KORIŠĆENJA DELJENOG SMEŠTAJA PRIMENOM EKONOMETRIJSKIH METODA 564
MODELING USAGE RATE OF SHARED ACCOMMODATION USING ECONOMETRIC METHODS
Nikola Drinjak, Milica Maričić, Marina Ignjatović

Digitalni i zeleni razvoj privrede

A DATA WAREHOUSE SYSTEM FOR AN ANALYSIS OF UNEMPLOYMENT RATE IN THE REPUBLIC OF SERBIA <i>Marija Đukić, Ivan Luković</i>	572
PRIMENA CHATGPT-A U SAVREMENOM ORGANIZACIONOM DIZAJNU APPLICATION OF CHATGPT IN MODERN ORGANIZATIONAL DESIGN <i>Andrea Filipović</i>	581
ISTRAŽIVANJE ISKUSTAVA KORISNIKA DELJENE VOŽNJE U REPUBLICI SRBIJI EXPLORING USER EXPERIENCES OF RIDE-SHARING IN THE REPUBLIC OF SERBIA <i>Teodora Golubović, Milica Maričić, Veljko Jeremić</i>	590
PREDVIĐANJE MALOPRODAJE KORIŠĆENJEM NEURAL PROPHET MODELA RETAIL SALES FORECASTING USING NEURAL PROPHET MODEL <i>Anđela Milisavljević, Ana Poledica</i>	599
UTICAJ DIGITALIZACIJE NA RAZVOJ MENADŽMENTA SPECIJALNIH DOGAĐAJA THE IMPACT OF DIGITALIZATION ON THE DEVELOPMENT OF EVENT MANAGEMENT <i>Marija Vasović</i>	606
CHAT GPT - IZAZOV SAVREMENOG POSLOVANJA CHAT GPT - THE CHALLENGE OF MODERN BUSINESS <i>Dragan Vukmirović, Dejana Kresović, Aleksandar Krstić, Uroš Milićević</i>	614

FUNKCIJA PROMPT INŽENJERINGA U GENERATIVNOJ VEŠTAČKOJ INTELIGENCIJI FUNCTION OF PROMPT ENGINEERING IN GENERATIVE ARTIFICIAL INTELLIGENCE <i>Dragan Vukmirović, Dejana Kresović, Aleksandar Krstić, Uroš Milićević</i>	622
---	-----

Upravljanje inovacijama

MEMORABLE EXPERIENCES: BUILDING LOYAL VISITORS TO CULTURAL INSTITUTIONS NEZABORAVNA ISKUSTVA: IZGRADNJA LOJALNIH POSETILACA KULTURNIM USTANOVAMA <i>Ezeni Brzovska, Snezana Ristevska-Jovanovska, Nikolina Palamidovska-Sterjadovska, Irena Bogoevska-Gavrilova</i>	632
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INOVACIONI PROCES: OD UKLJUČIVANJA KORISNIKA DO PRIMENE AI INNOVATION PROCESS: FROM USER ENGAGEMENT TOWARDS THE APPLICATION OF AI <i>Anđela Kresović, Radul Milutinović, Biljana Stošić</i>	642
---	-----

Upravljanje ljudskim resursima

ZAPOŠLJIVOST IT STRUČNJAKA I NJIHOVO ZADOVOLJSTVO SELEKCIJOM INTERVJUOM EMPLOYABILITY OF IT EXPERTS AND THEIR SATISFACTION WITH SELECTION INTERVIEW <i>Jovana Anđelić, Miloš Jevtić</i>	652
---	-----

ZELENO REGRUTOVANJE GREEN RECRUITMENT <i>Anja Knežević</i>	660
--	-----

UTICAJ INDIVIDUALNIH FAKTORA NA NAMERU STUDENATA DA KORISTE SISTEME E-UČENJA PERSONAL FACTORS IMPACTING STUDENTS' INTENTION TO USE E-LEARNING SYSTEMS <i>Slobodan Marić, Lazar Raković, Lena Đorđević Milutinović, Amra Kapo</i>	666
--	-----

MODELOVANJE STOPE NEZAPOSLENOSTI MLADIH PRIMENOM ARIMA METODOLOGIJE MODELING YOUTH UNEMPLOYMENT RATE USING ARIMA METHODOLOGY <i>Milovan Marković, Milica Maričić, Marina Ignjatović</i>	675
UPRAVLJANJE ISKUSTVOM KANDIDATA U FUNKCIJI PROCESA E-REGRUTACIJE MANAGING CANDIDATE EXPERIENCE IN FUNCTION OF E- RECRUITMENT PROCESS <i>Mila Miladinović, Jelena Anđelković Labrović, Nikola Petrović</i>	684
POVEZANOST TEORIJE AFEKTIVNOG VEZIVANJA I NAMERE NAPUŠTANJA ORGANIZACIJE THE RELATIONSHIP BETWEEN ATTACHMENT THEORY AND TURNOVER INTENTION <i>Teodora Mišić, Jelena Anđelković Labrović, Ivana Kovačević, Stefan Komazec</i>	692
RAZVOJ MODELA KOMPETENCIJA GRAĐEVINSKOG INŽENJERA DEVELOPMENT OF THE CIVIL ENGINEER COMPETENCY MODEL <i>Aleksandra Obradović</i>	700

Upravljanje logistikom i lancima snabdevanja

UTICAJ PANDEMIJE COVID-19 NA LANCE SNABDEVANJA KAFOM IMPACT OF THE COVID-19 PANDEMIC ON COFFEE SUPPLY CHAINS <i>Miloš Babić, Anđela Đorđević, Biljana Cvetić, Miloš Danilović</i>	710
SAVREMENO ROPSTVO U LANCIMA SNABDEVANJA MODERN SLAVERY IN SUPPLY CHAINS <i>Jana Jovanović, Jovana Krivokuća, Biljana Cvetić, Dragan Vasiljević</i>	721

Upravljanje marketingom i komunikacijama

NIJANSE ZELENE U KOZMETIČKOJ I MODNOJ INDUSTRIJI: PERSPEKTIVA POTROŠAČA SHADES OF GREEN IN THE COSMETIC AND FASHION INDUSTRY: A CONSUMER PERSPECTIVE <i>Milena Đaković, Milica Kostić-Stanković, Slavica Cicvarić Kostić</i>	730
ODREĐIVANJE VAŽNOSTI KRITERIJUMA UTICAJA NA KORISNIKE PRILIKOM GENERISANJA SADRŽAJA DETERMINATION OF THE SIGNIFICANCE OF IMPACT CRITERIA ON USERS WHEN CREATING CONTENT <i>Tamara Ilić, Milena Popović, Bisera Andrić Gušavac</i>	738
ZNAČAJ PREPOZNATLJIVOSTI BRENDA U KATEGORIZACIJI KLJUČNIH KUPACA THE IMPORTANCE OF BRAND RECOGNITION IN CATEGORIZATION OF KEY ACCOUNTS <i>Lara Jocić Šegrt, Branka Novčić Korać</i>	747
STRATEGIJA KOMUNIKACIJE ODRŽIVOSTI VISOKOOBRAZOVNIH INSTITUCIJA COMMUNICATION STRATEGY OF SUSTANABILITY IN HIGHER EDUCATIONAL INSTITUTIONS <i>Milica Kostić-Stanković, Vesna Damnjanović, Natalija Terzić</i>	755
MANAGING INFLUENCER MARKETING CAMPAIGNS: CHALLENGES FOR MARKETING PROFESSIONALS UPRAVLJANJE KAMPANJAMA INFLUENSER MARKETINGA: IZAZOVI ZA MARKETING MENADŽERE <i>Lola Maričić, Selena Stanojević, Tamara Vlastelica</i>	764
UTICAJ GREENWASHING-A NA PERCEPCIJU BRENDOVA U INDUSTRIJI BRZE MODE THE IMPACT OF GREENWASHING ON BRAND PERCEPTION IN THE FAST FASHION INDUSTRY <i>Lola Maričić, Selena Stanojević, Marija Jović</i>	773

PROMENE NA TRŽIŠTU MOBILNIH OPERATERA: IZAZOVI
REBRENDIRANJA 781
CHANGES IN THE MOBILE OPERATORS MARKET: THE
CHALLENGES OF REBRANDING
*Miljana Simić, Milan Okanović, Stefan Komazec, Ivan
Todorović*

EFEKTI KOMUNIKACIJE U JAVNOJ DIPLOMATIJI 789
POSREDSTVOM DRUŠTVENIH MEDIJA
EFFECTS OF PUBLIC DIPLOMACY COMMUNICATION ON
SOCIAL MEDIA
Ivana Skočajić

Upravljanje poslovnim procesima

MENADŽMENT POSLOVNIH PERFORMANSI U UPRAVLJANJU 799
ORGANIZACIJOM: STUDIJA SLUČAJA ADOBE KOMPANIJE
BUSINESS PERFORMANCE MANAGEMENT IN
ORGANIZATIONAL MANAGEMENT: A CASE STUDY OF
ADOBE COMPANY
Lena Bogdanović

UTICAJ DIGITALIZACIJE NA POBOLJŠANJE PROCESA NA 806
PRIMERU BANKE
THE IMPACT OF DIGITALIZATION ON PROCESS
IMPROVEMENT AT THE EXAMPLE OF A BANK
Milica Grujić, Nemanja Minić

REDIZAJN POSLOVNOG MODELA U SEGMENTU KLJUČNIH 814
PROCESA: STUDIJA SLUČAJA
REDESIGN OF THE BUSINESS MODEL IN THE SEGMENT OF
KEY PROCESSES: A CASE STUDY
Hrastislav Karanović, Ivona Jovanović, Milan Jovanović

RAZVOJ MODELA ŽIVOTNOG CIKLUSA BPM-RPA 822
DEVELOPMENT OF THE BPM-RPA LIFECYCLE MODEL
Nemanja Tulimirović, Ivan Tomašević, Dragoslav Slović

Upravljanje proizvodnjom i uslugama

ZNAČAJ PODRŠKE EKOSISTEMA RAZVOJU SOCIJALNOG PREDUZETNIŠTVA U REPUBLICI SRBIJI THE IMPORTANCE OF ECOSYSTEM SUPPORT FOR SOCIAL ENTREPRENEURSHIP DEVELOPMENT IN THE REPUBLIC OF SERBIA <i>Marija Bošković, Zoran Rakićević, Danica Lečić-Cvetković, Jasna Petković</i>	833
UTICAJ INTEGRALNOG PLANIRANJA OPERACIJA NA USPEŠNOST POSLOVANJA THE IMPACT OF INTEGRATED OPERATIONS PLANNING ON BUSINESS PERFORMANCE <i>Ana Cenić, Zoran Rakićević, Ognjen Anđelić, Danica Lečić- Cvetković</i>	842
UNAPREĐENJE USLUGA ŠPEDICIJE ROBE ŠIROKE POTROŠNJE PRIMENOM KPI IMPROVEMENT OF CONSUMER GOODS FREIGHT FORWARDING SERVICES BY APPLICATION OF KPI <i>Nikola Janković, Danica Lečić-Cvetković, Teodora Rajković</i>	852
PRIMENA KPI ZA UNAPREĐENJE UPRAVLJANJA PRODAJOM U MALOPRODAJNIM OBJEKTIMA IMPROVEMENT OF SALES MANAGEMENT IN RETAIL FACILITIES BY APPLICATION OF KPI <i>Isidora Nikolić, Danica Lečić-Cvetković, Teodora Rajković</i>	861
SPECIFIČNOSTI PLANIRANJA PROIZVODNJE U PREDUZEĆU IZ FARMACEUTSKE INDUSTRIJE SPECIFICITIES OF PRODUCTION PLANNING IN PHARMACEUTICAL INDUSTRY <i>Miodrag Radovanović, Zoran Rakićević, Biljana Ardelean</i>	870
DIGITALNI BLIZANAC: PRIMENA SAVREMENE TEHNOLOGIJE U PROIZVODNJI DIGITAL TWIN: APPLICATION OF MODERN TECHNOLOGY IN PRODUCTION <i>Teodora Rajković, Danica Lečić-Cvetković, Miljan Kalem</i>	879

Upravljanje projektima

UPRAVLJANJE PROJEKTNIM USPEHOM U DIGITALNOJ ERI: ANALIZA UTICAJA MS PROJECT-A NAVIGATING PROJECT SUCCESS IN THE DIGITAL ERA: A DEEP DIVE INTO THE INFLUENCE OF MS PROJECT <i>Tea Borozan, Golub Marković, Petar Stanimirović</i>	889
ANALIZA IZAZOVA PRIMENE AGILNOG PRISTUPA UPRAVLJANJA PROJEKTIMA U BANKARSKIM ORGANIZACIJAMA ANALYSIS OF THE CHALLENGES OF APPLICATION AN AGILE PROJECT MANAGEMENT APPROACH IN BANKING ORGANIZATIONS <i>Nikolina Ivančević, Dejan Petrović, Zorica Mitrović</i>	898
SPECIFIČNOSTI OCENE OPRAVDANOSTI ULAGANJA U PROJEKTE PROIZVODNJE VINA SPECIFIC OF PROJECT APPRAISAL OF WINE PRODUCTION PROJECTS <i>Luka Perović, Dejan Petrović, Marko Mihić</i>	907
PROJECT MANAGEMENT SOFTWARE: CATALYST OR CONSTRAINT? SOFTVERI ZA UPRAVLJANJE PROJEKTOM: KATALIZATORI ILI OGRANIČENJA? <i>Petar Stanimirović, Katarina Petrović, Tea Borozan, Milan Radojičić</i>	916
ANALIZA FAKTORA MOTIVACIJE ČLANOVA AGILNIH TIMOVA ANALYZING MOTIVATIONAL FACTORS OF AGILE TEAM MEMBERS <i>Olga Tošić, Ognjen Nikolić, Marija Kuzmanović</i>	925

**MAPPING THE CIRCULAR ECONOMY LANDSCAPE:
A BIBLIOMETRIC ODYSSEY
MAPIRANJE OBLASTI CIRKULARNE EKONOMIJE:
BIBLIOMETRIJSKA ODISEJA**

Nataša Petrović¹, Flavio Pinheiro Martins², Aleksandar Jovović³

¹University of Belgrade-Faculty of Organizational Sciences, Serbia,
natasapetrovic@fon.bg.ac.rs

²The Bartlett, Faculty of the Built Environment-University College London,
England, flavio.martins.22@ucl.ac.uk

³University of Belgrade-Faculty of Mechanical Engineering, Serbia,
aleksandar@jovovic.rs

Abstract: *In a world where massive waste generation is one of the most prominent environmental concerns, the current theory and practise of the linear economy cannot provide any more solutions in the context of development that can ensure the necessary sustainability. Restoring equilibrium in the relationship between humans and the environment requires an in-depth understanding and respect of all the processes and inhabitants of planet Earth, as well as all its ecosystems and present habitats. One method is to mimic the circular flows that have ruled nature since its beginnings and reproduce them in the economy. For these reasons, numerous researchers and scientists have concentrated their works and studies on the circular economy. The bibliometric analysis of the literature in this field reveals significant research efforts and shifts, and which are crucial to be used in the economic practises of societies around the globe.*

Key words: *Circular economy, green transition, literature review, bibliometric analysis, VOSviewer.*

Apstrakt: *U svetu u kome stvaranje ogromnih količina otpada predstavlja jedan od najvažnijih ekoloških problema, postojeća teorija i praksa linearne ekonomije ne može više da obezbedi rešenja u kontekstu razvoja koji može da obezbedi neophodnu održivost. Uspostavljanje ekvilibrijuma u odnosu između ljudi i životne sredine podrazumeva duboko razumevanje i uvažavanje svih procesa i stanovnika planete Zemlje, kao i svih ekosistema i postojećih habitata. Jedan metod je podržavanje kružnih tokova koji vladu u prirodi od njenog početka i njihovo preslikavanje u privredi. Iz ovih razloga, brojni istraživači i naučnici su usmerili svoj rad i studije na cirkularnu ekonomiju. Bibliometrijska analiza literature u ovoj oblasti prikazuje značajne istraživačke napore i promene čija primena je neophodna u privrednim praksama društvima širom sveta.*

Ključne reči: *Cirkularna ekonomija, zelena tranzicija, pregled literature, bibliometrijska analiza, VOSviewer.*

1. INTRODUCTION

“Ah how shameless – the way these mortals blame the gods. From us alone they say come all their miseries yes but they themselves with their own reckless ways compound their pains beyond their proper share.” - Homer, The Odyssey

The expansion of the global population has resulted in a rise in the suboptimal utilisation of natural resources (Symth, 2006). Therefore, it is apparent, as Bonnett (2007) observes, that there are few other issues that currently exert a greater impact on the welfare of the human species than those pertaining to the environment. Conversely, the constraints on the potential resources that planet Earth can offer to human civilization are intrinsically linked to the limitations on what the planet can sustainably accommodate, particularly in terms of environmental degradation and the production of excessive waste (Petrović, Ćirović, & Martins, 2023).

All this is both a cause and a result of the linear economy brought about by the industrial revolution as a turning point in the human-environment connection (in a negative and opposed context). *“For these reasons, both in theory and in practice, it has been shown that the exciting development of the economy or linear economy that is traditionally based on the ‘take-make-dispose’ model of production and consumption is a total antithesis to the planet’s necessary model of sustainability”* (Petrović, Ćirović, & Martins, 2023, p. 5). This pattern may be interpreted as the linear economy, which can be traced back to the notion of ‘use and discard’, which has been around ever since the start of the industrial revolution (Zamarriego, 2017).

The circular economy is a different kind of economic model from the linear one. It aligns closely with natural systems by adopting a closed circular framework that encompasses all materials inside circular flows.¹ Because of this, “the circular economy is also referred to as circularity or simply CE” (Ellen MacArthur Foundation, 2017).

CE places a major emphasis on the holistic use of resources as an appropriate way for effectively managing large volumes of waste.² The wide-ranging scope of circular

¹ Because of this, the biosphere, which is the oldest global ‘enterprise’ on the planet, has been operating for more than 3 billion years and has been effective in ensuring its existence. This system's production component, which is made up of an infinite number of plants and tiny algae, converts around 200 billion metric tonnes of carbon into organic matter on a yearly basis while also creating approximately 100 billion metric tonnes of oxygen and 8 x 10 kWh of energy.

² The industrial process in CE mirrors the natural world almost exactly, beginning with the gathering of raw materials from the environment and proceeding on to the manufacture of finished goods. These kinds of production systems are the closed circular kind and participate in circular flows of all materials.

economy is demonstrated via its incorporation of waste returned to the production process through multiple areas of the economy. The European Economic Area (2016) highlights many advantages that may be achieved via a reduction of waste output, as well as the recycling and reutilization of goods. These benefits encompass both economic and environmental aspects. Furthermore, the concept of a circular economy (CE) seeks to develop a production and consumption system that effectively reduces material and energy losses via the prioritization of principles related to reuse, recycling, and processing (Ellen MacArthur Foundation, 2013).

In recent years, there has been a considerable growth in the total number of publications that are related in a way to the CE (Camón Luis & Celma, 2020):

- The use of the CE framework towards the improvement of business management and administration (Lewandowski, 2016; Ormazabal et al., 2018).
- The chances that are afforded to businesses who have a strong propensity towards innovation and entrepreneurialism by the implementation of a CE (Veleva & Bodkin, 2018).
- The implementation of the CE within particular sectors, such as service-oriented enterprises with a distinct technical aspect (Heyes et al., 2018).

The authors of this research article used bibliometric analysis to find the main trends in scientific publications about CE because CE is very important in both theoretical and practical settings. The objective of this analysis is to identify the primary research fields and the often-used terms in the field of scientific output. The main goal of this study is to explore and describe all the possible future trends that could affect this field in the near future, with a focus on CE in relation to the green transition.

2. METHODOLOGY

To speed up the research effort, a qualitative analysis was performed on the data obtained from the Scopus and Web of Science (WoS) database. "The choice of Scopus was based on the idea that it has a more extensive database than its competitors, like WoS" (Falagas et al., 2018; Vujković et al., 2022).

The study was carried out with bibliometric indicators as the primary analytical framework. The use of bibliometric analysis as a commonly employed methodology is very suitable when doing research on a substantial volume of scientific information. Additionally, the availability of comprehensive scientific databases like Scopus and WoS has played a crucial role in facilitating bibliometric analysis.

The unit of analysis employed in this study was the word, specifically for the purpose of conducting co-word analysis to examine the present content of publications utilising this methodology. The present analysis employs a method to explore the titles of articles, abstracts, keywords, and full texts of papers. It operates on the assumption that words that frequently co-occur possess a thematic association.

The present study utilised a bibliometric analysis approach that involved the usage of VOSviewer software (Kirby, 2023), which is equipped with a graphical user interface. This programme is often employed for literature review, bibliometric analysis, and thematic inquiries (Petrović, Jeremić, & Ćirović, 2023).

3. RESULTS AND DISCUSSION

The authors used a scientific mapping approach to explore the interrelationships among the components under research (Baker, Kumar, & Pattnaik, 2021; Cobo et al., 2011; Donthu et al., 2021; Petrović, Jeremić, & Ćirović, 2023; Ramos-Rodríguez & Ruíz-Navarro, 2004) by utilizing the co-word technique in the database search.

3.1. Keyword strings definition

For the objectives of the study, we selected:

- I. *Circular economy related keywords* - "circular economy" OR CE OR "Cradle to Cradle" OR "C2C" OR "Closed-Loop Systems" OR "Resource Efficiency" OR "Waste Reduction" OR "Product Life Extension" OR "Industrial Symbiosis" OR "Product Reuse" OR "Material Recycling" OR "Product Remanufacturing" OR "Reverse Logistics" OR "Upcycling" OR "Downcycling" OR "Product-as-a-Service" OR PaaS OR "Extended Producer Responsibility" OR EPR OR "Sharing Economy" OR "Zero Waste Initiatives" OR "Industrial Ecology" OR "Green Procurement".
- II. *Green transition related keywords* - "Sustainable Development" OR "Eco-Friendly Practices" OR "Renewable Energy" OR "Green Infrastructure" OR "Sustainable Transportation" OR "Sustainable Urban Planning" OR "Corporate Social Responsibility" OR CSR OR "Green Business Models" OR "Sustainable Product Innovation" OR "Eco-Friendly Packaging" OR "Sustainable Manufacturing" OR "Net Zero Emissions" OR "Conservation Targets" OR "2030 Agenda for Sustainable Development" OR "Paris Agreement" OR "Sustainable Development Goals" OR SDGs OR "Carbon Pricing" OR "Emission Reduction Targets" OR "Eco-labeling" OR "Environmental Legislation".

3.2. Full search string for Scopus

To facilitate our study, we selected certain search terms within the Scopus database:

- I. **(TITLE** („circular economy“ OR ce OR “Cradle to Cradle“ OR “C2C“ OR “Closed-Loop Systems“ OR “Resource Efficiency“ OR “Waste Reduction“ OR “Product Life Extension“ OR “Industrial Symbiosis“ OR “Product Reuse“ OR “Material Recycling“ OR “Product Remanufacturing“ OR “Reverse Logistics“ OR “Upcycling“ OR “Downcycling“ OR “Product-as-a-Service“ OR paas OR “Extended Producer Responsibility“ OR epr OR “Sharing Economy“ OR “Zero Waste Initiatives“ OR “Industrial Ecology“ OR “Green Procurement“) **AND TITLE-ABS-KEY** (“Sustainable Development“ OR “Eco-Friendly Practices“ OR

“Renewable Energy” OR “Green Infrastructure” OR “Sustainable Transportation” OR “Sustainable Urban Planning” OR “Corporate Social Responsibility” OR csr OR “Green Business Models” OR “Sustainable Product Innovation” OR “Eco-Friendly Packaging” OR “Sustainable Manufacturing” OR “Net Zero Emissions” OR “Conservation Targets” OR “2030 Agenda for Sustainable Development” OR “Paris Agreement” OR “Sustainable Development Goals” OR sdgs OR “Carbon Pricing” OR “Emission Reduction Targets” OR “Eco-labeling” OR “Environmental Legislation”).

It is important to acknowledge that during this phase of our research, no filters were applied with regards to timespan, geographical focus, topic area, document type, language, and other relevant factors.

Consequently, an overall sum of 3,997 documents were obtained from Scopus, whereas the WoS database had 2,168 documents, indicating a noticeable growth in the number of publications over a period.

3.3. Cluster Analysis

A bibliometric study was conducted using the Scopus and WoS databases to analyze the content and identify the primary topic categories present in the fields of CE and green transition. The papers are used in the VOSviewer software package for the purpose of constructing and visualizing the bibliometric network using cluster analysis with the following VOSviewer parameters:

- Keyword frequency at least 5.
- Minimum cluster size – 20.
- Normalization method - LinLog/Modularity.

The shown nodes in Figure 1 serve as graphical representations of important words, with their respective sizes reflecting the frequency at which these words appear within the studied and analyzed documents. The presence of lines linking the nodes serves as an indication of the co-occurrence of words within the papers. Based on the visual representation, it can be inferred that the analysis yielded four distinct clusters, namely red, green, blue, and yellow, each representing various thematic categories.

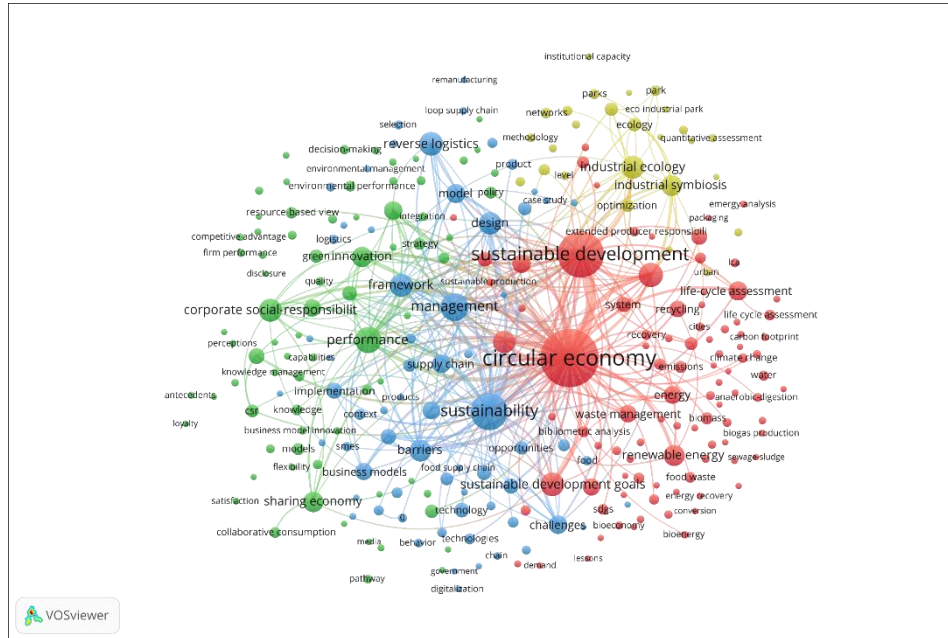


Figure 1: Construct clusters in the origins of CE and green transition constructs
 Source: Elaborated by the authors using VOSviewer

Cluster 1, referred to as the red cluster, focuses on the relationship between CE and sustainable development. Within this cluster, the keyword that stands out most prominently is “circular economy”, which possesses a weight value of 521. The substantial weight of this cluster suggests that it primarily emphasizes the notion of the CE itself, together with its principles and implementations. The country of China is notable with a weight of 78, indicating a substantial focus on its approach and execution of CE practices. The concepts of “sustainable development” and “sustainable development goals” carry corresponding weights of 310 and 74. The presence of these terms suggests a strong connection between research in the field of CE and sustainability aims, as well as the United Nations' Sustainable Development Goals (SDGs). The inclusion of a waste component weighing 68 units emphasizes the significance of waste management and waste reduction within the context of the CE paradigm.

Cluster 2, referred to as the blue cluster, focuses on the concepts of CE and sustainability. This cluster contains the pragmatic aspects of adopting the CE. The keywords “management” and “sustainability” carry substantial importance, with weights of 106 and 193, respectively. The presence of these keywords indicates that the focal points of this cluster are around the management of circular practices and the promotion of sustainability. Renewable energy is a crucial element, carrying a weight of 60, which underscores the fundamental importance of renewable energy sources in the

context of the CE. The concept of “recycling” carries a weight of 34, highlighting the significant role it plays in the implementation of circular practices.

Cluster 3, often known as the green cluster, focuses on environmental impact and performance. The primary focal points within this cluster are the words “performance” and “impact”, both of which have significant importance in the evaluation and enhancement of environmental performance. The weights of the two entities are 92 and 38, respectively. The words “corporate social responsibility” and “innovation” carry considerable weights of 69 and 56, respectively, indicating their important contributions to the improvement of environmental performance and sustainability. The presence of the words “impact” and “innovation” in this cluster suggests a particular emphasis on examining the ways in which corporate social responsibility and innovative practices contribute to the reduction of environmental impact.

Cluster 4, commonly referred to as the yellow cluster, relates to the field of industrial ecology and symbiosis. The cluster places significant emphasis on the concepts of “industrial ecology” and “industrial symbiosis”, each with a weight of 72. These concepts highlight the criticality of enhancing industrial processes to achieve sustainability and maximize resource efficiency. The word “evolution” with a weight of 23 indicates a particular focus on the development of industrial systems towards more sustainable and mutually beneficial models. The idea of “cleaner production” holds a significant weight of 16, underscoring the importance of implementing cleaner and more sustainable practices within the industrial sector.

4. CONCLUSION

In conclusion, “Mapping the Circular Economy Landscape: A Bibliometric Odyssey” gives a thorough look at how the CE can help solve some of the world's biggest environmental problems, like too much waste and running out of resources. The paper underscores the limitations of the conventional linear economic model, highlighting the urgency of adopting CE principles that mimic natural systems. Through a thorough bibliometric analysis, the authors identify significant research trends, notably the intersection of the CE and sustainable development.

4.1. Practical Implications

The implications of this research extend to policymakers, businesses, and scholars. Policymakers gain insights into the evolving landscape of CE concepts, enabling the formulation of policies aimed at fostering sustainability and reducing environmental degradation. Businesses can align their strategies with sustainability goals by understanding key thematic areas related to CE practices. For researchers, the paper provides guidance for future investigations by highlighting significant trends in the CE discourse, facilitating ongoing discussions on practical applications and implications of CE principles. The emphasis on waste management and sustainable development goals

within the identified clusters provides tangible guidance for organizations looking to integrate circular practices.

4.2. Future Research Questions

This paper raises compelling research questions in the fields of the CE and sustainable development. Future inquiries may explore practical strategies and policies for the global transition from linear to CE paradigms. Researchers can delve into the mechanisms that facilitate the adoption of CE principles by industries, governments, and communities.

Additionally, the paper underscores the complex relationship between the circular economy and environmental sustainability. Future research can focus on environmental impact assessment and the development of tools to measure and optimize sustainability benefits resulting from circular economy practices.

The identification of clusters in the bibliometric analysis provides opportunities for deeper exploration of the interplay among CE themes. Researchers can investigate the interactions between concepts within these clusters, shedding light on their mutual influences and implications, offering a nuanced understanding of potential synergies and trade-offs within the CE framework. These emerging research questions pave the way for continued exploration of the multifaceted dimensions of the CE and its role in a more sustainable future.

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REFERENCES

- Baker, H. K., Kumar, S., & Pattnaik, D. (2021). Twenty-five years of the journal of corporate finance: a scientometric analysis. *Journal of Corporate Finance*, 66, 101572. <https://doi.org/10.1016/j.jcorpfin.2020.101572>
- Bonnett, M. (2007). Environmental education and the issue of nature. *Journal of Curriculum Studies*, 39(6), 707–721. <https://doi.org/10.1080/00220270701447149>
- Camón Luis, E., & Celma, D. (2020). Circular Economy. A Review and Bibliometric Analysis. *Sustainability*, 12(16), 6381. <https://doi.org/10.3390/su12166381>
- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., & Herrera, F. (2011). An approach for detecting, quantifying, and visualizing the evolution of a research field: A practical application to the Fuzzy Sets Theory field. *Journal of Informetrics*, 5(1), 146-166. <https://doi.org/10.1016/j.joi.2010.10.002>

- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285-296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
- Ellen MacArthur Foundation (2013). *Towards the Circular Economy: Economic and Business Rationale for an Accelerated Transition*. Ellen MacArthur Foundation.
- Ellen MacArthur Foundation (2017). *Circularity Indicators*. Retrieved from <https://web.archive.org/web/20190731195422/https://www.ellenmacarthurfoundation.org/resources/apply/circularity-indicators>.
- Heyes, G., Sharmina, M., Mendoza, J. M. F., Gallego-Schmid, A., & Azapagic, A. (2018). Developing and implementing circular economy business models in service-oriented technology companies. *Journal of Cleaner Production*, 177, 621–632
- Kirby, A. (2023). Exploratory Bibliometrics: Using VOSviewer as a Preliminary Research Tool. *Publications*, 11(1), 10. <http://dx.doi.org/10.3390/publications11010010>
- Ormazabal, M., Prieto-Sandoval, V., Puga-Leal, R., & Jaca, C. (2018). Circular Economy in Spanish SMEs: Challenges and opportunities. *Journal of Cleaner Production*, 158, 157–167.
- Petrović, N., Ćirović, M., & Martins, F. P. (2023). The Role of Higher Education in Transition to a Circular Economy: Journey on the „Yellow Brick Road” to Sustainability. In Obradović, V. (Eds.) *Sustainable Business Change*. Springer, Cham. https://doi.org/10.1007/978-3-031-23543-6_1
- Petrović, N., Jeremić, V., & Ćirović, M. (2023). Uloga ekonomije deljenja u ostvarivanju održivosti i ciljeva održivog razvoja. U B. Stošić, S., Lazarević i M. Kostić Stanković (Eds.) *Održivo upravljanje poslovanjem: inovacije, softver i komunikacije*. Beograd. [In Serbian]
- Ramos-Rodríguez, A. R., & Ruíz-Navarro, J. (2004). Changes in the intellectual structure of strategic management research: A bibliometric study of the Strategic Management Journal, 1980–2000. *Strategic management journal*, 25(10), 981-1004.
- Symth, C. J. (2006). Environment and education: A view of a changing scene. *Environmental Education Research*, 12(3–4), 247–264. <https://doi.org/10.1080/13504620600942642>
- Veleva, V., & Bodkin, G. (2018). Corporate-entrepreneur collaborations to advance a circular economy. *Journal of Cleaner Production*, 188, 20–37.
- Vujković, P., Ravšelj, D., Umek, L., & Aristovnik, A. (2022). Bibliometric Analysis of Smart Public Governance Research: Smart City and Smart Government in Comparative Perspective. *Social Sciences*, 11(7), 293. <https://doi.org/10.3390/socsci11070293>
- Zamarriego, L. (2017). Viaje al centro del ecodiseño. *Circle*, 2. Retrieved from <https://www.revistacircle.com/2017/03/08/ecodiseno-michael-braungart/>.