Book of Abstract Conference Proceeding

JICRISD 2024

https://jicrisd.com

Hybrid International Conference:
December 5, 2024

JAKARTA INTERNATIONAL CONFERENCE ON RESEARCH INNOVATION AND SUSTAINABLE DEVELOPMENT

Conference Theme:
"The Rise of Natural Resources Industrial Policy,
Political Ecology, and Sustainable Development in ASEAN"

Book of Abstract Conference Proceeding

Jakarta International Conference on Research Innovation and Sustainable Development 2024
(JICRISD 2024)

Theme: "The Rise of Natural Resources Industrial Policy, Political Ecology, and Sustainable Development in ASEAN".

Virtual International Conference
December 5, 2024

Host:

Book of Abstract Conference Proceeding
Jakarta International Conference on Research Innovation and Sustainable Development 2024 (JICRISD 2024)

Theme: "The Rise of Natural Resources Industrial Policy, Political Ecology, and Sustainable Development in ASEAN."

FOREWORD

VISION:

Become the Leading University with International quality that is innovative, competitive, and patriotic for the betterment of Indonesian people.

MISSIONS:

Establish high-quality education to produce patriotic graduates that have global competitiveness.
Organize innovative research and community service for the development of Indonesian people.
Develop academic climate based on traditional values of the university.
Govern the university well by applying risk management.
Develop network and partnership both domestically and internationally.

OBJECTIVES:

Realize the development of globally competitive, patriotic education.
Realize innovative research and community service for the development of Indonesian people.
Fulfill the needed competent human resource to implement Three Pillars of Higher Education (Tridharma Perguruan Tinggi) in academic environment based on the university's core values and PIKIR.
Realize good, accountable, transparent, and sustainable governance.
Realize the development of network and partnership both locally and internationally.

https://www.upnvj.ac.id/

Research Synergy Foundation is a digital social enterprise platform that focuses on developing the Global Research Ecosystem towards outstanding global scholars. We build collaborative networks among researchers, lecturers, scholars, and practitioners globally for the realization of knowledge acceleration and to contribute more to society and humanity. As a social enterprise, our aim is to provide a good research ecosystem and platform for researchers to share, discuss, and disseminate their ideas. In addition, it helps you to improve your research and contribute to the knowledge. Therefore, creating social value and impact is our priority.

From 2017 to 2023, more than 30.000 scholars have participated in our programs from Asia, Australia, Africa, America, and Europe continents. With the average of the increasing number of members by more than 5.000 each year, we continuously strengthen the global research ecosystem by having five support systems that are ready to help members from across the world.

There are various agendas (work and program) that we have already done since 2017 up to present. The agendas are coming from all the support systems in the Global Research Ecosystem, named: Scholarvein, ReviewerTrack, Research Synergy Institute, Research Synergy Press, and Global Research Community. Research and publication cannot be seen as a separate part. Otherwise, we should take both as a comprehensive program. Moreover, the quality of the paper is the biggest concern for publication. To achieve the Organization/University/ Institution goal, we provide some agendas that can support you in research and publication enhancement. Some of the prominent agendas are:

a. International Conferences: It aims to create a "tipping point" of opportunities for participants to disseminate their research globally and have reputable scientific publication output.
b. Scientific and Academic Writing Coaching Clinics: It aims to provide a targeted and intensive learning strategy for publishing papers in high-impact Scopus/ WOS international journals.
c. Workshops: It aims to provide a vibrant learning forum to enhance the author's capability of scientific writing skills and the manuscript's quality.
d. Learning and Knowledge Sharing Programs: It aims to provide the best practice and guide from the experts, editors, and publishers' perspectives in research and publication enhancement.
e. Social Programs: It aims to empower and encourage society to share the value of creating an impactful program with us.

Research Synergy Foundation welcome all individuals, organizations/institutions (universities, governments, and private sectors) to be part of our Global Research Ecosystem.
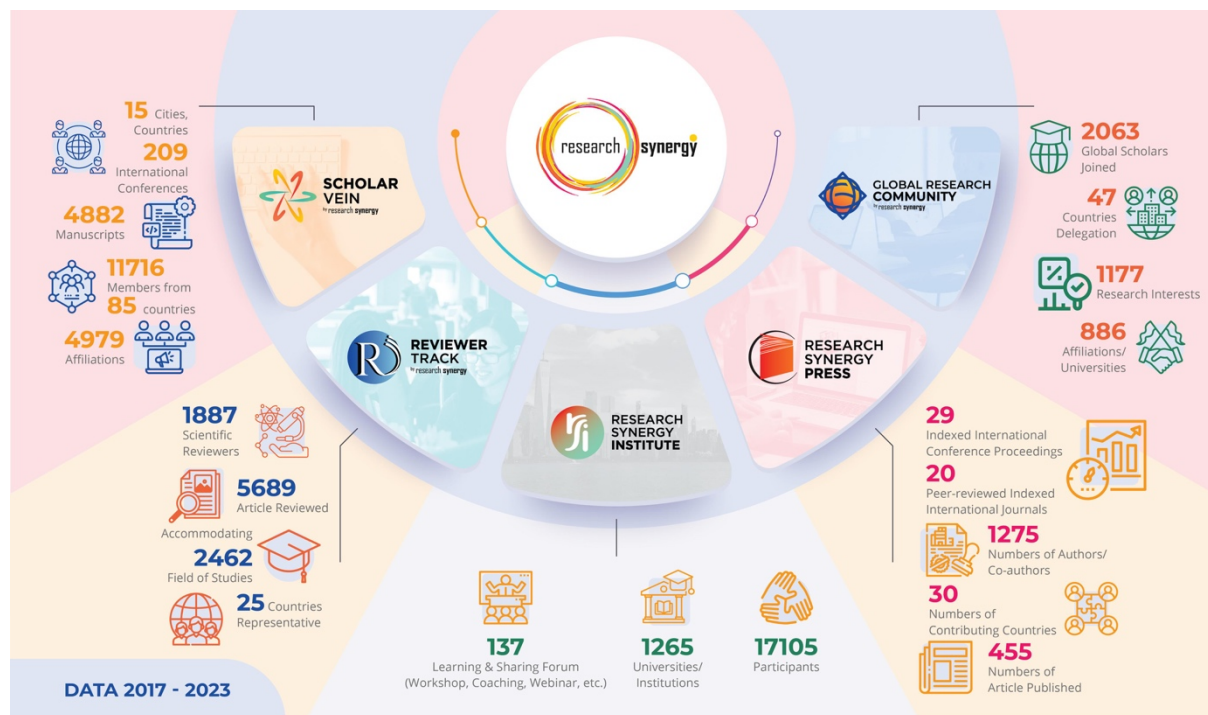
Figure: Global Research Ecosystem owned by Research Synergy Foundation (data from 2017 – 2023)

Please find other important links related to RSF profile:

- https://www.researchsynergy.org/
- http://globalresearchecosystem.com/
- https://f1000research.com/rsf
- https://journals.researchsynergypress.com
- https://proceeding.researchsynergypress.com
- https://www.researchsynergysystem.com
- https://www.facebook.com/ResearchSynergy/
- https://www.instagram.com/researchsynergyfoundation/
- https://www.youtube.com/@researchsynergyfoundation8675

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ORGANIZING COMMITTEE

Conference Chair:
Dr. Dianwicaksih Arieftiara, S.E., Ak., M.Ak., CA., CSRS.
Universitas Pembangunan Nasional Veteran Jakarta

Co-Conference Chair:
Dr. Hendrati Dwi Mulyaningsih
Research Synergy Foundation

Organizing Committee:
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LPPM Universitas Pembangunan Nasional Veteran Jakarta

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Dr. Ranawaka Arachchige Ravin Sachindra De Alwis - University of Kelaniya

Dr. Sathaporn Monprapussorn - Department of Geography, faculty of Social Sciences, Srinakharinwirot University

Dr. KVD Edirisooriya - Sabaragamuwa University of Sri Lanka

Dr. Supachart Iamratanakul - Kasetsart Business School

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Prof. Dr Sshowkat Maqbool - Skuast kashmir

Prof. Dr.Sasikumar Gurumoorthy - Sree Vidyanikethan Engineering College

Dr. Mary Anne C. Sedanza - Leyte Normal University**,** Philippines

Dr. Shumaila Zeb - Shaheed Zulfikar ALi Bhutto Institute of Science and Technology

Dr. Jennifer H. Operio - Holy Angel University, Philippines

Dr. Saddam A. Hazaea - Southwestern University of Finance and Economics, China

Gs. Ts. Dr. Alexius Korom - Universiti Teknologi MARA (UiTM), Sabah, Malaysia

Dr. Rishirl Cuario - National University - Manila, Philippines

Dr. Amarjit Kene - SVERI's College of Engineering, Pandharpur, India

CONFERENCE CHAIR MESSAGE

Distinguished Participants and Guests,
Excellencies, Ladies, and Gentlemen,

Good morning. It is with great pleasure that I welcome each of you to the Jakarta International Conference on Research Innovation and Sustainable Development (JICRISD) 2024, organized by the Pusat Kajian Pembangunan Berkelanjutan dan Strategis (PUSKA SSUD), Lembaga Penelitian dan Pengabdian Masyarakat (LP2M) Universitas Pembangunan Nasional Veteran Jakarta (UPNVJ), and the Research Synergy Foundation. Supported by ReviewerTrack, Research Synergy Institute, Research Synergy Press, Global Research Community, and F1000Research. This gathering marks a significant milestone in our collective efforts toward sustainable development.

We are honored to have esteemed keynote and invited speakers joining us:

- Prof. Dr. Jomo Kwame Sundaram, Khazanah Research Institute, Malaysia
- Dr. Óscar Ugarteche, Universidad Nacional Autónoma de México, Mexico
- Fachru Nofrian, Ph.D, Universitas Pembangunan Nasional Veteran Jakarta, Indonesia
- Dr. Agustinus Prasetyantoko, Atma Jaya Institute of Public Policy, Indonesia

As well as the session chairs coming from This year's conference theme, "The Rise of Natural Resources Industrial Policy, Political Ecology, and Sustainable Development in ASEAN," serves as an invaluable platform for scholars, researchers, and practitioners to come together, share insights, and tackle critical issues surrounding climate change and natural disasters. Through fostering interdisciplinary collaboration, we aspire to craft innovative and sustainable solutions to address the complex challenges of our interconnected world.

I encourage all participants to actively engage in discussions, share insights, and fully immerse themselves in this knowledge-rich environment. My heartfelt appreciation goes to our keynote speakers, session chairs, scientific reviewers, conference committee members, presenters, and attendees from around the globe. Your enthusiasm and contributions inspire us all. Let us look forward to a successful and enriching conference. Thank you.

Best regards,

Dr. Dianwicaksih Arieftiara, S.E., Ak., M.Ak., CA., CSRS.
Universitas Pembangunan Nasional Veteran Jakarta

CONFERENCE CHAIR

Dr. Dianwicaksih Arieftiara, S.E., Ak., M.Ak., CA., CSRS., GRCE.

Universitas Pembangunan Nasional Veteran Jakarta

Dr. Dianwicaksih Arieftiara, S.E., M.Ak., Ak., CA., CSRS, GRCE, is an Associate Professor (Lektor Kepala) at Universitas Pembangunan Nasional (UPN) Veteran Jakarta. She earned her bachelor's and master's degrees from Universitas Airlangga and completed her doctorate at Universitas Indonesia, specializing in Accounting. Dr. Dianwicaksih has extensive experience teaching various accounting and taxation courses and is actively engaged in research and publications, focusing on ESG, sustainability, corporate governance, and risk control. She currently serves as Special Staff to the Rector of UPN Veteran Jakarta for Internationalization Affairs, an Assessor for LAMEMBA, and an ESG Practitioner.

Internationally recognized, Dr. Dianwicaksih has participated as a keynote speaker, panelist, and contributor at prestigious events, such as the Asian Academic Accounting Association Annual Conference, the 36th IBIMA Conference, and the 5th International Conference in Sustainable Business Management. Her research is featured in reputable international journals, including Scopus-indexed publications, and she serves as a reviewer for Scopus Q1 journals like *Meditari Accountancy Research*. Her expertise in Environmental, Social, and Governance (ESG), tax avoidance, and sustainability strategies has established her as a thought leader in these fields.

Beyond academia, she is deeply committed to community service, offering accounting training for MSMEs, assisting SOEs in financial governance, and supporting the implementation of technology-based governance. Her contributions to research and education have earned her multiple awards, further enhancing her reputation both nationally and internationally.

CO-CONFERENCE CHAIR

Dr. Hendrati Dwi Mulyaningsi, S.E., M.M.
Founder & Chairperson of Research Synergy Foundation

Dr. Hendrati Dwi Mulyaningsih has shown great commitment on creating Global Network and Research Ecosystem which has been developing since 2017 up to the present and having increasing numbers of the member up to more than 30.000 from all around the globe. Thus, her work in this area has made her as the Nominee of Impactful Leadership Awards from Tallberg Foundation Sweden 2024. As lecturer, she has been working in the University since 2008 – at present in Indonesia as assistant professor and she hold her Doctoral Science of Management graduated from School of Business and Management Institute of Technology Bandung (SBM-ITB). Her research expertise are in Social Entrepreneurship, Social Innovation and Knowledge Management. In addition, she had published books chapters, research papers and contemporary scientific articles in Springer, Emerald, Taylor and Francis and in many reputable international publishers and journals.

As researcher, her work studies and research on this research field made her be invited as reviewer in many reputable Scopus and WOS indexed journals and as keynote speaker in many International Conferences in Philippines, Thailand, Malaysia, Indonesia, Australia, Japan, and US. The terrific association between her professional experiences as researcher, lecturer, the certified Trainer & Coach combined with her wider horizon on networking in the research area made her establish the strong commitment on having global learning platform to accelerate knowledge through many workshops and research coaching in Research Synergy Institute as one of RSF's support system.

WELCOME REMARKS

Sri Lestari Wahyuningroem, M.A., Ph.D.

Head of Institute of Research and Community Service, Universitas Pembangunan Nasional Veteran Jakarta

Dr. Sri Lestari Wahyuningroem is a political science lecturer at UPN Veteran Jakarta, and has been the Head of UPNVJ's Institute of Research and Community Service (LPPM) since December 2020. She completed her PhD at the Australian National University. Her dissertation was published by Routledge London, titled: "Transitional Justice from State to Civil Society: Democratization in Indonesia". She earned her Master of Art from Central European University, and Sarjana Ilmu Politik from Universitas Indonesia. She did her post-doctoral study at St Antony's College, University of Oxford, UK. She was an appointed associate professor at Osaka School of International Public Policy, Osaka University, and currently a Fulbright Visiting Scholar at Carr Center for Human Rights Policy, Kennedy School, Harvard University.

OPENING SPEECH

Dr. Anter Venus, Drs., M.A.Comm.

Rector of Universitas Pembangunan Nasional Veteran Jakarta

Dr. Anter Venus, Drs., M.A. Comm currently serves as a lecturer in Universitas Pembangunan Nasional Veteran Jakarta and Universitas Padjajaran at Faculty of Communication. His field includes Nusantara Ethnicity Philosophy and Communication and Organization Campaign and Communication. He also occasionally provides expertise as a consultant and instructor of communication for state-owned enterprises, private sectors, and the government.

Dr. Anter Venus has received professional certification from Macquarie University Sydney, International Certified Therapeutic Communication & Counsellor from IACT-USA, Certified Behavioral Analyst in Singapore, Certified Professional Hypnosis from IANREF USA-Indonesia, Certified Communication Auditor, and International Certified in Microfinance Management from ICIMM, The Netherlands, Indonesia, and Greece. He has been awarded numerous scholarships, awards, and grants such as AUSAID Scholarship Award, The Japan Foundation Grant for Indonesia Scholars, Research Grant from SAME, and has written best seller books on communication and campaign management.

KEYNOTE SPEAKER

Prof. Dr. Jomo Kwame Sundaram

Khazanah Research Institute, Malaysia

Jomo Kwame Sundaram is research adviser at the Khazanah Research Institute in Malaysia, and Fellow of the Academy of Science of Malaysia, and Emeritus Professor of the University of Malaya. He was the founder-chair of International Development Economics Associates (IDEAs), UN Assistant Secretary General for Economic Development (2005-2012), and assistant director general of the Food and Agriculture Organization (FAO) (2012-2015). He received the 2007 Wassily Leontief Prize for Advancing the Frontiers of Economic Thought.

INVITED SPEAKERS

Dr. Óscar Ugarteche
Universidad Nacional Autónoma de México, Mexico

Óscar Ugarteche Galarzais a Peruvian economist, author, professor, researcher at the Economic Research Institute of the National Autonomous University of Mexico (UNAM), and LGBT activist. His extensive body of work specializes in economics, international finance, economic history, and global economics.

He began his higher education in Literature at the Pontifical Catholic University of Peru, later continuing in Finance at Fordham University in New York (1973), where he received the "Who is Who in American Colleges and Universities" award. He completed a Master's degree in International Finance at the London Business School (1975) and a PhD in Philosophy and History at the University of Bergen, Norway (2007). In December 2015, he was awarded an Honorary Doctorate by the National University of San Agustín in Arequipa, Peru, for his contributions to international economic knowledge.

As an economist, Ugarteche has conducted research for the National Planning Institute on banking and credit systems in Peru. He has also served as a consultant for the World Bank, the United Nations Conference on Trade and Development (UNCTAD), the United Nations, the Economic Commission for Latin America and the Caribbean (ECLAC), the International Labour Organization (ILO), and OXFAM. He has taught economics at the Pontifical Catholic University of Peru (1980–2004) and the National Autonomous University of Mexico (UNAM). He has been a visiting professor at prestigious institutions, including St Antony's College, Oxford (1986), the Center for Development Studies at the University of Bergen (1993 and 1995), the Institute of Latin American Studies at the University of London (2000), the Free University of Berlin's Center for Latin American Studies (2011), and the Latin American Studies Center at the University of Newcastle (2014), where he was awarded a Santander scholarship.

Ugarteche has also been a columnist for various publications such as *Diario de Marka*, *Nueva Sociedad*, *Realidad Económica*, *Márgenes*, *Páginas del CEP*, and more recently, *América Latina en Movimiento* (ALAI). His writings include books and essays on economics, addressing topics such as public debt and globalization, with a particular focus on Latin America. Currently, he is a Senior Researcher at the Economic Research Institute of UNAM and coordinates the Latin American Economic Observatory.

INVITED SPEAKERS

Dr. Agustinus Prasetyantoko
Atma Jaya Institute of Public Policy, Indonesia

INVITED SPEAKERS

Fachru Nofrian, Ph.D.

Universitas Pembangunan Nasional Veteran Jakarta, Indonesia

Dr Fachru Nofrian, holds his Ph.D from Sorbonne School of Economics, Maison des sciences économique, the University of Paris 1, Panthéon-Sorbonne, Paris, France. Previously in Organization for Economic and Development Cooperation (OECD), Paris, France and alsotrained in African Program on Rethinking Development Economics (APORDE) in South Africa. Among its publications are Industrialization Process and Profit Rate Analysis, *Review of Radical Political Economics (RRPE)* in 2019 and Développement et Changement Politique Economique Institutionnelle en Indonésie, Marché et Organisation in 2014. He has participated in the Conference 2022 IDEAS in Kuala Lumpur, Malaysia and Colloque 2022 Régulation Theory, Paris, France. Currently lecturer in the Departement of Economics, Faculty of Economics and Business, Universitas Pembangunan Nasional Veteran Jakarta.

MODERATOR

Achmad Nur Hidayat, MPP.

Universitas Pembangunan Nasional Veteran Jakarta

Achmad Nur Hidayat, previously earned Master Public Policy on Economic Policies from National University of Singapore (NUS) and from Tsinghua University, Beijing China in 2009. He had an executive education from Harvard Kennedy School of Government, Boston-USA in 2012. He is currently assisting and providing recommendation for both the Supervisory Board of Central Bank of Indonesia and Government of Indonesia in the effort to increase sustainable economic growth, maintain the financial system stability and reinvent human resources capacities in line with technological disruption.

SESSION CHAIRS

Dr. Saddam A. Hazaea
Southwestern University of Finance and Economics, China

Saddam A. Hazaea is doing a postdoctoral position in ESG assurance at the Faculty of Accounting, Southwestern University of Finance and Economics (SWUFE), China. He has been awarded a Ph.D. in Auditing from Yunnan University of Finance and Economics in 2022. His exceptional work and dedication to the field also earned him many Awards. Throughout his academic career, he has conducted extensive research on various functional domains, including Auditing, Corporate Governance , and Sustainability Assurance. His articles are published in top-tier academic journals, including Environmental Science and Pollution Research, Meditari Accountancy Research, Corporate Governance, Sage Open, and Frontiers in Energy Research, among others.

Gs. Ts. Dr. Alexius Korom
Universiti Teknologi MARA (UiTM), Sabah, Malaysia

Geospatialists Technologists Dr Alexius Korom is a Senior Lecturer in the Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA at Kota Kinabalu, Sabah, Malaysia. He graduated with a Bachelor of Biological & Agricultural Engineering at the undergraduate level, while at the postgraduate level, he graduated with MSc in Remote Sensing & GIS from Universiti Putra Malaysia, Selangor Darul Ehsan and a PhD from University Malaysia Sabah in remote sensing application for forestry and agriculture fields. He obtained his Professional Technologists and Professional Geospatialists after graduating with a PhD.

At the university, Dr Alex was a Faculty Head of Programme back in 2007-2009. He teaches subjects such as Smart Plantation Technology, Information Technology in Agriculture, Introduction to Agricultural Technology, Mechanization in Estate Operation and Principles in Agriculture as well as Field Work Practical. His research interests are in precision agriculture, biomass estimation, and UAV drone applications. He has published several papers in international journals and joined a network of established collaborators from Japan and France. Among the research grants he currently works on are the Borneo Samudera Industrial grant, APNIS International grant and other internal grants such as the Fundamental Research Grant Scheme (FRGS), SDG@Borneo, and Dana Kecemerlangan. Despite his patience in research, he is also a friend to his students in the faculty, acting as an Academic Advisor for the Faculty.

SESSION CHAIRS

Dr. Rishirl Cuario
National University - Manila, Philippines

Rishirl Alberto Cuario, LPT, MPA, DPA cand., is a distinguished educator with over 20 years of teaching experience . Currently she is Associate Professor at the National University of Manila. She has a degree in Bachelor of Science in Secondary Education majoring in Social Science. She is a also a Licensed Professional Teacher with additional certifications in Reading and Literacy. She completed a Master's in Public Administration with a major in External Relations and Philippine Studies.

Currently pursuing her Doctoral Degree in Public Administration, Prof. Cuario brings extensive academic credentials to her role as a full-time faculty member and COMEX Coordinator in the College of Education, Arts and Sciences. Her research interests focus on gender sensitivity, labor migration, and public governance. Inspired by Nelson Mandela's belief that education is a transformative force, she continues to contribute meaningfully to academic scholarship and societal understanding through her teaching and research.

Dr. Amarjit Kene
SVERI's College of Engineering, Pandharpur, India

Dr. Amarjit Prakashrao Kene, with a Ph.D. in Mechanical Engineering from IIT Kanpur, is a distinguished academic and researcher with extensive expertise spanning both theoretical and practical aspects of engineering. He is the Dean of Research & Development and an Associate Professor in the Mechanical Engineering Department at SVERI's College of Engineering, Pandharpur. In his leadership role, Dr. Kene is instrumental in driving research initiatives, fostering innovation, and mentoring future engineers to become industry-ready professionals. During his career, Dr. Kene has worked on diverse projects that blend cutting-edge technology with practical applications. His early work during his master's focused on optimizing the build orientation of 3D-printed products, where he developed 21 unique codes to simplify the process of slicing and tool path generation—advancing the efficiency and precision of additive manufacturing.

In his Ph.D., Dr. Kene made significant contributions to sensor fusion in conventional machining processes, improving reliability and predictive accuracy. He developed an analytical model integrating sensor data from various inputs to predict tool wear and other machining parameters. His approach proved more accurate than traditional methods like regression and neural networks, setting new standards for precision in machining. Beyond his technical work, Dr. Kene actively collaborates with industry partners, contributes to academic conferences, and has published in leading journals. His commitment to bridging the gap between academia and industry continues to inspire innovation, while his leadership within the institution promotes a culture of research excellence and continuous learning.

CONFERENCE PROGRAM

Thursday | December 5, 2024

CONFERENCE PROGRAM Jakarta International Conference on Research Innovation and Sustainable Development 2024 (JICRISD 2024) VIRTUAL CONFERENCE: 5 December 2024		
Thursday, 5 December 2024		
Time (UTC+7)	**Dur'**	**Activity**
Main Room		**Zoom Link:** **https://bit.ly/JICRISD2024 OR** **https://us06web.zoom.us/j/88059094678?pwd=W2qJJcqwnv7SJtbTsIm6vbGGDi2XWS.1** **Meeting ID: 880 5909 4678** **Passcode: jicrisd**
8:50 - 9:00	0:10	**Participant Login and Join Virtual Conference by ZOOM**
9:00 - 9:15	0:15	**Welcome Address** and Conference Publication Announcement by MC
9:15 - 9:25	0:10	Listening the national anthem "Indonesia Raya" and Mars "Bela Negara"
9:25 - 9:35	0:10	**Welcome Remarks of JICRISD** **Sri Lestari Wahyuningroem, M.A., Ph.D.** Head of Institute of Research and Community Service, Universitas Pembangunan Nasional Veteran Jakarta
9:35 - 9:45	0:10	**Opening Speech** **Dr. Anter Venus, Drs., M.A.Comm.** Rector of Universitas Pembangunan Nasional Veteran Jakarta
9:45 - 9:55	0:10	**Global Research Ecosystem Introduction** **Dr. Hendrati Dwi Mulyaningsih** Co-Conference Chair of JICRISD 2024 Founder & Chairperson of Research Synergy Foundation
9:55 - 10:00	0:05	**E-Group Photo**
10:00 - 10:30	0:30	**Keynote Speaker:** **Prof. Dr. Jomo Kwame Sundaram** Khazanah Research Institute, Malaysia
10:30 - 10:35	0:05	Token of Appreciation for Keynote Speaker
10:35 - 10:55	0:20	**Invited Speaker:** **Dr. Óscar Ugarteche** Universidad Nacional Autónoma de México, Mexico
10:55 - 11:00	0:05	Token of Appreciation for Invited Speaker
11:00 - 11:20	0:20	**Invited Speaker:** **Dr. Agustinus Prasetyantoko** Atma Jaya Institute of Public Policy, Indonesia
11:20 - 11:25	0:05	Token of Appreciation for Invited Speaker
11:25 - 11:45	0:20	**Invited Speaker:** **Fachru Nofrian, Ph.D.** Universitas Pembangunan Nasional Veteran Jakarta, Indonesia
11:45 - 11:50	0:05	Token of Appreciation for Invited Speaker
11:50 - 12:00	0:10	**Announcement and preparation of Academic Online Parallel Presentation Session**
12:00 - 13:00	1:00	**Break** (Video played: University Profile, and Program of LPPM UPN Veteran Jakarta; Research Synergy Foundation Profile; JICRISD 2024 Agenda & Sessions)

Academic Online Parallel Presentation Session (Main Room and Breakout Room 1, 2, and 3)		
13:00 - 13:10	0:10	Session Chair Introduction at each parallel breakout rooms. **Main Room: Dr. Saddam A. Hazaea - Southwestern University of Finance and Economics, China** **Breakout Room 1: Gs. Ts. Dr. Alexius Korom - Universiti Teknologi MARA (UiTM), Sabah, Malaysia** **Breakout Room 2: Dr. Rishirl Cuario - National University - Manila, Philippines** **Breakout Room 3: Dr. Amarjit Kene - SVERI's College of Engineering, Pandharpur, India**		
13:10 - 15:10	2:00	**Academic Online Parallel Presentation Session, maximum 8 presenters : 15 minutes/presenter**		
15:10 - 15:20	0:10	Awarding Certificate of Presentation, Testimonial, and Post-conference information announcement		
15:20 - 15:40	0:20	Short Break and Back to Main Room for JICRISD 2024 Closing Ceremony		
Main Room		
15:40 - 15:55	0:15	**Awarding Ceremony** **Best Presentation** **Best Paper** **Session Chairs Recognition**		
15:55 - 16:00	0:05	**Closing Speech of JICRISD 2024** **Dr. Dianwicaksih Arieftiara, S.E., Ak., M.Ak., CA., CSRS.** Conference Chair of JICRISD 2024 Universitas Pembangunan Nasional Veteran Jakarta		

LIST OF PRESENTERS

Thursday | December 5, 2024

Room: Main Room
Time: 13:00 - 15:20 (UTC+7)
Session Chairs: Dr. Saddam A. Hazaea - Southwestern University of Finance and Economics, China

Track Economics

Paper ID	Presenter	Paper Title
385150	Achmad Nur Hidayat	Stakeholder Dynamics in Downstreaming in Indonesia: A Case Study of Nickel Mining
ISD24104	Vita Sarasi	Exploring Key Determinant of Fish Exports through System Thinking Analysis in the Sustainable Blue Economy of Wakatobi, Southeast Sulawesi, Indonesia
270124	Faisal Marzuki	Government Expenditure and the Choice of Stock Capital: Empirical Test in Banten (Indonesia) and Hebei (China)
641339	Purwanto Widodo	The effects of BOPO, Money Supply, and the Provincial Open Unemployment Rate influence the profitability of Bank Pembangunan Daerah (BPD)

Track Accounting

Paper ID	Presenter	Paper Title
441081	Mohamad Heykal	The Role of Sharia Principles for Fraud Prevention in Sharia Business
ISD24112	Sarah Widyana Putri	The Implications of Environmental, Social, and Governance and Intellectual Capital on Sustainable Growth in ASEAN-6 Countries
ISD24114	Dianwicaksih Arieftiara	Determining Greenwashing in Global ESG Research: A Bibliometric Analysis

Track Entrepreneurship

Paper ID	Presenter	Paper Title
ISD24106	Sariat Arifia	Community Based Entrepreneurship Development Towards Sustainable Ecotourism: Case Study in South Bogor, Lembu Anyar, Curug Kembar Cisangku and Curug Leuwi Hijau

Room: Breakout Room 1
Time: 13:00 - 15:20 (UTC+7)
Session Chairs: Gs. Ts. Dr. Alexius Korom - Universiti Teknologi MARA (UiTM), Sabah, Malaysia

Track Sustainability Studies

Paper ID	Presenter	Paper Title
669556	Muhammad Rafif	Female Director Moderating Influence Sustainable Finance and Energy Consumption to GHG Emission
104647	Dhiya Ghazy Khairy	Analysis of Domestic Waste Generation in RW 03 Banyumanik Sub-districts, Banyumanik District, Semarang City

Track Environmental Sciences

Paper ID	Presenter	Paper Title
393931	Herviyanti	Removal of Glyphosate on Inceptisols Ameliorated With Geo-Material: Equilibrium and Isotherm Study
ISD24107	Siti Hadhirah Azlan	Improving Maize Yield, Biomass, and Selected Chemical Properties of an Acid Soil Using Organic Amendment From Chicken Dung
105613	Istnaya Widya Sabila	Water Quality Analysis of Klampok River in Semarang

Track Computer sciences

Paper ID	Presenter	Paper Title
ISD24117	Ishfihana Hafny	An Organized Review of Cyber Security Risk Implementation in Organization
357106	Asnurul Isroqmi	Differences In Human And Computer Thinking Logic Flows Obstacles In Learning Programming Algorithms
714149	Neny Rosmawarni	TeaGuard: Mobile-based Tea Plant Pest and Disease Detection Application

Room: Breakout Room 2
Time: 13:00 - 15:20 (UTC+7)
Session Chairs: Dr. Rishirl Cuario - National University - Manila, Philippines

Track Law

Paper ID	Presenter	Paper Title
648782	Sariat Arifia	The Impact of Family Status on the Enforcement of Gratification Laws in Indonesia
ISD24110	Yulia Hasan Hasan	Protection of Marine Ecosystems in Indonesian Jurisdiction through International Agreements

Track Social Sciences

Paper ID	Presenter	Paper Title
ISD24102	Thanh-Truc Dang	Mentorship for Educational Development, Educational Equity, Higher Education Access, Ethnic Minority Education, Sustainable Development in Education: A Theory of Planned Behavior Study of Hmong Students in Vietnam
ISD24108	Akbar Gunawan	Systematic Review of Sustainable Competitive Advantage Factors in The Creative Industry
ISD24115	Rovena I. Dellova	Food as Destination: Cultural Delicacies as Motivating Factor for Tourists to Travel

Track Management

Paper ID	Presenter	Paper Title
ISD24105	Ranila Suciati	Intellectual Capital's Influence on Financial Performance: Mediating and Moderating Factors in Indonesia's Real Estate Sector

Track Business

Paper ID	Presenter	Paper Title
476212	Apolinario Magno	Examining the Impact of Digital Platforms on Scaling Small and Medium Enterprises in Timor-Leste for Sustainable Growth

Room: Breakout Room 3
Time: 13:00 - 15:20 (UTC+7)
Session Chairs: Dr. Amarjit Kene - SVERI's College of Engineering, Pandharpur, India

Track Engineering and Technology		
Paper ID	**Presenter**	**Paper Title**
ISD24101	Muh Luqman Khakim	Crashworthiness Analysis of Trailer Structure of Indonesian High Speed Train
ISD24103	Budi Ari Sasmito Simatupang	Study of Two-Layer Surface Hardfacing by Shielded Metal Arc Welding on Wear Resistance of Low Alloy Steel in Equipment at Wood Processing Mill Pulp and Paper Industry
ISD24111	Zulmahdi Darwis	The Effect of Epoxy Resin on the Compressive Strength of Short Laminated Bamboo Columns
ISD24109	Piter Harefa	The Effect of Angle of Attack on Cross-Flow Turbine Efficiency: A Numerical Simulation Study
ISD24113	Febbi Wizaya Saputra	Hardness and Wear Properties of Hard Chrome-Coated Medium Carbon Steel for Hydraulic Cylinder Rod
734674	Benedictus Adityo Imanuel Kurnia	The Relationship Between Chipper Knife Wear-Out and Its Power-To-Production Ratio in the Pulp and Paper Production Process

Track:
Social Science
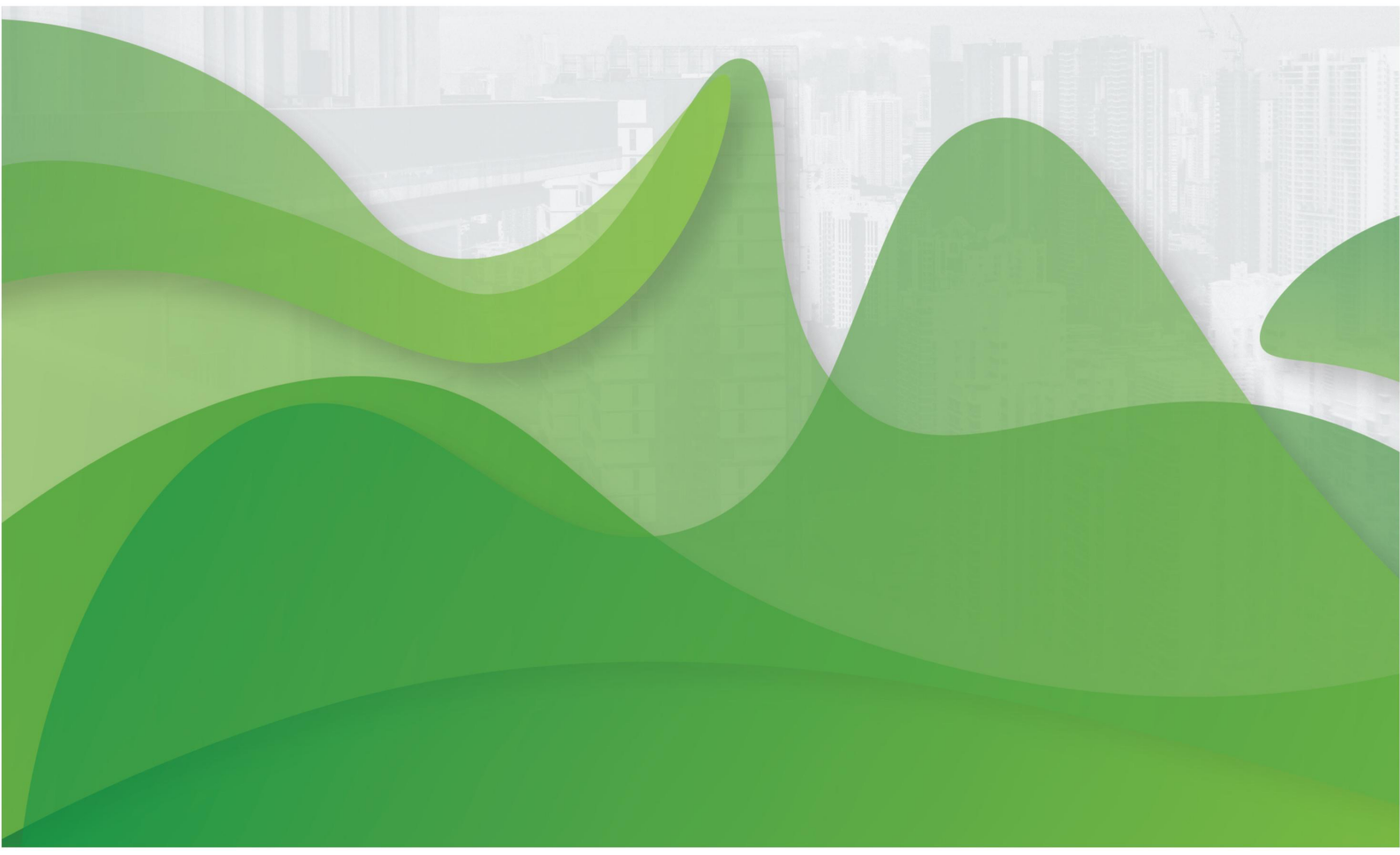
Food as Destination: Cultural Delicacies as Motivating Factor for Tourists to Travel

| Roseanne A. Valino[1], Rovena I. Dellova[2], Samantha Mae C. Sumang[3], Marinel Pearl A. Lopez[4], Precil Nicole G. Canoy[5], Kenneth M. Agao[6]

[1,2,3,4,5,6]Lyceum of the Philippines University

Abstract

Background – Metro Manila, the vibrant capital of the Philippines, is a dynamic hub of culture, history, and gastronomy. Local delicacies like buko pie, halo-halo, kare-kare, and tapsilog showcase the region's diverse flavors and hold significant potential as drivers of cultural tourism. However, there is a limited evidence on how these delicacies influence tourists' decision to travel.

Purpose – The purpose of this study is to explore the motivating factors that lead tourists to choose cultural delicacies as a basis for their travel destinations, particularly in the Philippine context.

Design/methodology/approach – This study used a descriptive research design with a quantitative approach, guided by Dann's Theory of Tourist Motivations, to examine factors influencing travel decisions to the National Capital Region (NCR). A total of 376 tourists aged 18 and above participated through snowball sampling. A validated survey instrument assessed demographics, food preferences, cultural delicacy determinants, and travel motivations using a four-point Likert scale, demonstrating strong reliability.

Findings – The majority of respondents were below 30 years old, female, and most were from Manila. "Taste" emerged as the top factor influencing cultural food choices, followed by its role in enhancing a destination's popularity. Price, health concerns, religion, and diet also significantly influenced travel motivation. ANOVA showed no significant differences in preferences based on demographics except for age, with younger tourists valuing cultural delicacies more. These results indicate that taste and a destination's cultural appeal drive food-based tourism, emphasizing the importance of promoting local cuisine to attract diverse tourist groups in the Philippines.

Research limitations – This study examines the factors motivating tourists' preferences for cultural delicacies and their impact on travel but its scope is limited to Metro Manila, potentially overlooking the diversity of Philippine culinary traditions.

Originality/value – Despite the global recognition of culinary tourism's potential, there is limited research on how cultural delicacies motivate tourists, especially in the Philippine context. This aims to advance the understanding of food tourism for integrating culinary tourism into sustainable tourism strategies, strengthening Metro Manila's identity and branding.

Keywords: cultural delicacies, food destination, travel motivation

Systematic Review of Sustainable Competitive Advantage Factors in The Creative Industry

| Akbar Gunawan[1], Triwulandari Satitidjati Dewayana[2], Kadarsah Suryadi[3], Iveline Anne Marie[4]

[1,4]Universitas Trisakti, [2]Universitas Trisakti, [3]Bandung Institute of Technology

Abstract

Background – Sustainable competitive advantage is a set of characteristics and capabilities that enable a business to meet its customers' needs better than its competitors. Factors that enable a company to produce goods or services better or cheaper than its competitors. These factors enable a productive entity to generate more sales or better margins than competitors in its market.

Purpose – This study is a systematic literature review on sustainable competitive advantage factors of the creative industry, using the Systematic Literature Review (SLR) approach and following the PRISMA framework. These articles to find theoretical gap in factors and problems that can influence sustainable competitive advantage in creative industries smes with relevant fields Social, economic and technical

Design/methodology/approach – The reference search process in this research was carried out through PRISMA. with the keywords "sustainable competitive advantage" and creative and industrial as well as "small and medium enterprises" .The literature search was carried out using the Scopus and IEEE Explorer, data used uses the time range 2014-2024. fields of study: Social, economic and engineering and the selected data are in the form of articles and proceedings

Findings – A systematic literature review is able to analyze and provide comprehensive information for the creative industry. 18 factors were found that influence sustainable competitive advantage. Future research can integrate approaches from various disciplines such as sociology, innovation management, and digital economics to comprehensively understand the impact of competitive advantage in the Industry 4.0 era and government policy is found to be one of the factors influencing sustainable competitive advantage, further research can explore the effectiveness of these policies in different countries or regions. To deepen the findings, further research can use specific case studies of creative SMEs in various countries to compare the implementation of competitive advantage strategies

Research limitations – this research identified, evaluated, and synthesized 27 relevant articles taken from the Scopus and IEEE Explorer databases, published between 2014 and 2024.

Originality/value – All these factors are important, but production quality, environmental friendliness, finance, innovation, consumer behavior and human resources are the most prominent factors. This meta-analysis offers important insights and can serve as a foundation for further efforts to encourage the adoption of competitive advantage practices.

Keywords: Factors, Sustainable Competitive Advantage, creative industries, innovation, PRISMA

Mentorship for Educational Development, Educational Equity, Higher Education Access, Ethnic Minority Education, Sustainable Development in Education: A Theory of Planned Behavior Study of Hmong Students in Vietnam

│ **Thanh-Truc Dang**

British University Vietnam

Abstract

Background – This study examines the influence of mentorship on the desire to pursue higher education among Hmong ethnic minority students aged 12-15 in Lao Cai Province, Vietnam, using the Phieu Linh Educational Summer Camp as a case study.

Purpose – Utilizing the Theory of Planned Behavior as a theoretical framework, the research investigates how cross-ethnic mentorship between Kinh majority mentors and Hmong minority mentees affects students' educational aspirations.

Design/methodology/approach – The study employed a quantitative approach, collecting survey data from 75 Hmong students participating in the summer camp. Five key aspects of mentorship were analyzed: quality, educational accessibility, clear educational outcomes, self-awareness, and cultural identity support, in relation to the components of the Theory of Planned Behavior.

Findings – Results indicate that all mentorship aspects positively correlate with students' educational desires, with mentorship quality emerging as the strongest factor. Family support and household income were also found to significantly influence educational aspirations. The study reveals that culturally responsive mentorship can play a crucial role in shaping attitudes, subjective norms, and perceived behavioral control related to pursuing higher education among ethnic minority youth.

Research limitations – Limitations of this study include its focus on a single ethnic group in one province, which may limit generalizability, and its cross-sectional design, which precludes long-term assessment of mentorship impacts on actual higher education enrollment. Future research could benefit from a longitudinal approach across multiple ethnic groups and regions in Vietnam.

Originality/value – This research contributes to the understanding of effective strategies for promoting educational equity in Vietnam's multicultural context. It offers insights for designing targeted interventions and policies to support the educational aspirations of ethnic minority students, potentially contributing to narrowing educational gaps among ethnic groups in Vietnam.

Keywords: Mentorship for Educational Development, Educational Equity, Higher Education Access, Ethnic Minority Education, Sustainable Development in Education

Track: Engineering and Technology
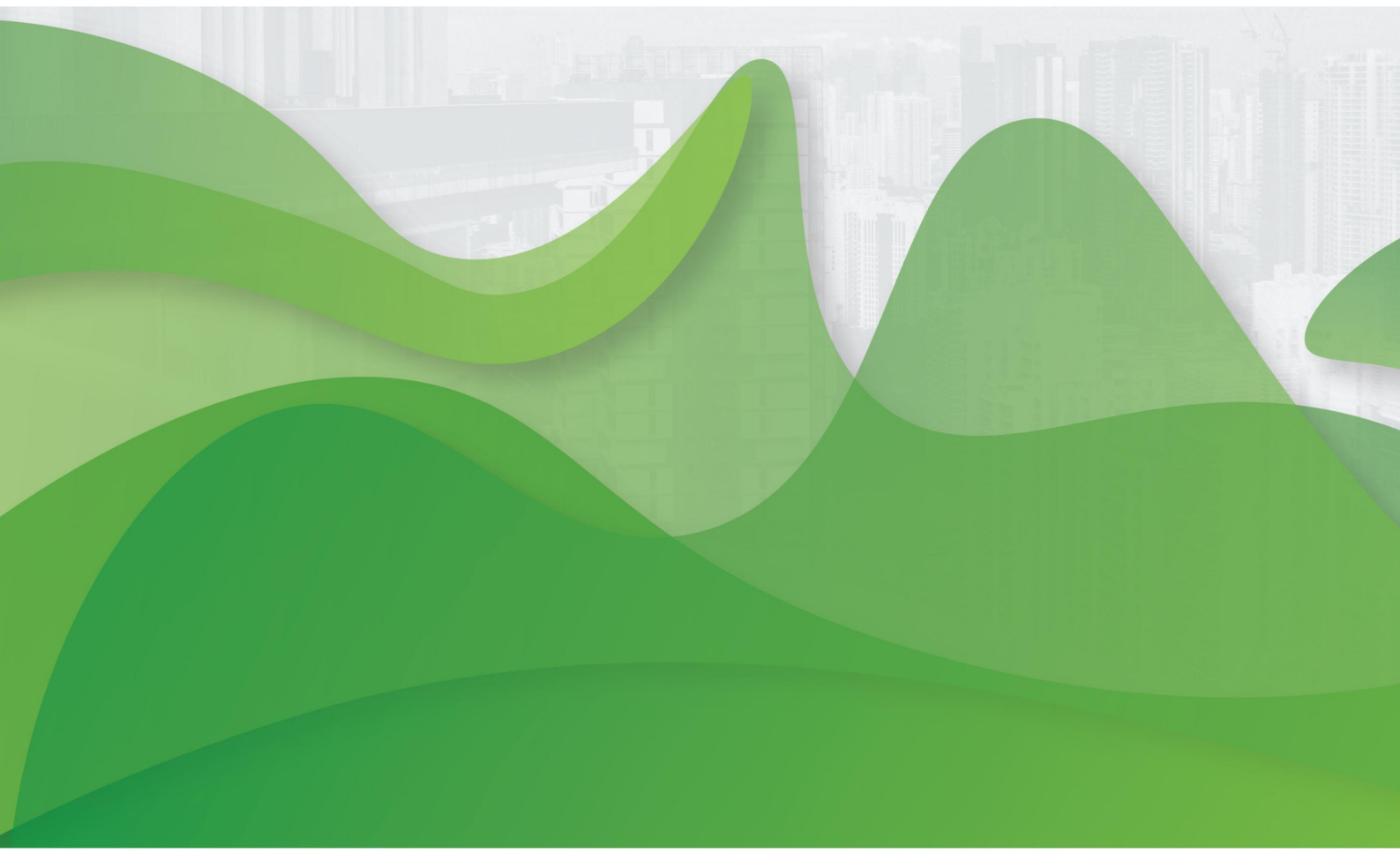
The Relationship Between Chipper Knife Wear-Out and Its Power-To-Production Ratio in the Pulp and Paper Production Process

| Benedictus Adityo Imanuel Kurnia[1], Muslim Mahardika[2], Budi Arifvianto[3], Veronica Lestari Jauw[4]

[1,2,3]Universitas Gadjah Mada, [4]University of Nottingham

Abstract

Background – The pulp and paper industry continue to experience growth. However, as opportunity increase, so do the number of competitors. Indonesia, as one of the leading producers of pulp and paper within the ASEAN region, faces strong competition from around the world. To stay competitive, Indonesian pulp and paper manufacturers must adopt more sustainable practices while enhancing production efficiency. A key area for improvement is energy consumption, particularly during the production stages. Despite this, there remains a significant gap in research on optimizing specific stages of production, such as the wood chipping process, which this study aims to address by investigating the energy dynamics.

Purpose – To investigate the influence of sharp and worn-out knives by evaluating those knives under the electron microscopic image analysis. Additionally, the energy dynamics of the worn-out knives and its respective power consumption-to-production (PCTP) ratio in the wood chipping process are to be investigated as well.

Design/methodology/approach – The chipping of Eucalyptus wood was conducted from when the knife was sharp until worn-out. Sample of the sharp and worn-out knives were collected and analyzed using scanning electron microscope JEOL JCM-700. The PCTP ratio was observed by recording hourly power consumption from the chipper motor alongside chip production data from weigh sensor Siemens Milltronics.

Findings – The result of micrograph showed distinct differences between the sharp and worn-out knives, primarily due to friction and abrasion during the chipping process. The PCTP ratio demonstrated an uptrend over time, with a 13.79% increase as the knife worn-out, indicating reduced efficiency in woodchip manufacturing.

Research limitations – This experiment focused on chipping Eucalyptus wood using Large-Scale Horizontal Chipper. Future studies could expand by examining various wood species, knife settings, or alternative types of large-scale chippers.

Originality/value – The previous experiments typically used small-scale chippers, often fuel-powered and intended for wood boiler applications, as those studied in several European countries, or small laboratory chippers. In contrast, this experiment utilized a large-scale horizontal chipper for pulp and paper production in Indonesia. While earlier studies compared the performance of sharp to worn-out knives, this experiment went further by examining the progression of knife wear over time and its impact on the PCTP ratio.

Keywords: Chipper, Wood Chip, Power Consumption, Wear Out, Morphology

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Hardness and Wear Properties of Hard Chrome-Coated Medium Carbon Steel for Hydraulic Cylinder Rod

| Febbi Wizaya Saputra[1], Budi Arifvianto[2]

[1,2]Universitas Gadjah Mada

Abstract

Background – In the heavy equipment industry, the hydraulic cylinder rod is a critical component because it is directly exposed to the work environment such as sand, gravel and other hard particles so a rod is needed that is tough and resistant to these conditions. S45C medium carbon steel is widely used as a material for hydraulic cylinder rods due to its toughness and ductility.

Purpose – This study aims to evaluate the thickness of chrome coating on hydraulic cylinder rods and to evaluate its influence on the hardness and wear properties of this typical medium carbon steel.

Design/methodology/approach – The coating process was conducted using electroplating, with each specimen immersed in 250 l chromic acid and 20 l sulfuric acid solution with a current of 84 A for 30, 60, 90, 120, and 150 minutes. The coating thickness was measured using an optical microscope, specific wear was assessed with the Ogoshi High Speed Universal Wear Testing Machine, and surface hardness was measured using the Vickers microhardness test.

Findings – The result shows that the highest hardness value of 10,52 GPa be achieved at 60 minutes of electroplating, while the specific wear rate was recorded as 1.521×10^{-6} mm³/kg·m using the Ogoshi method.

Research limitations – Further research is still needed to confirm wear behavior, as initial data from Ogoshi testing showed that the lowest wear rate corresponded to the specimen with the thinnest coating layer.

Originality/value – Originality is uses coating current values with varying coating times to look for optimum hardness and wear specific values for the thickness of the hard chrome coating.

Keywords: S45C medium carbon steel, electroplating, hydraulic cylinder rod, hardness, wear rate

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The Effect of Angle of Attack on Cross-Flow Turbine Efficiency: A Numerical Simulation Study

| Piter Harefa[1], Muhammad Agung Bramantya[2], Joko Waluyo[3]

[1,2,3]Universitas Gadjah Mada

Abstract

Background – Hydropower is a promising renewable energy source, with cross-flow turbines increasingly favored for their ability to operate efficiently in variable flow conditions, such as tidal and riverine environments. However, understanding the influence of the angle of attack on turbine performance is crucial to optimizing energy capture and operational stability.

Purpose – This study investigates the impact of angle of attack on the efficiency and torque generation of a cross-flow turbine designed for hydroelectric applications through computational fluid dynamics (CFD) method, aiming to find out the most optimal design.

Design/methodology/approach – The cross-flow turbine model has 35 runner blades, based on experimental study conducted by Sammartano et al. (2016). This model was later modified and simulated with an angle of attack by 15 degree, 22 degree and 29 degree. Simulations were carried out with three-dimensional numerical method using commercial CFD code ANSYS Fluent R20.2, run in transient mode using k-w with shear stress transport (SST) as turbulence model. A high-resolution mesh with multizone method was developed around turbine blades. Mesh motion method also was adapted for accurately capture fluid interactions with moving parts.

Findings – Based on CFD simulation results, the maximum efficiencies obtained with angle of attack 15 degree, 22 degree and 29 degree were 86%, 87%, 91%, respectively with an error 6.4%. In this case, cross-flow turbine with angle of attack 29o was the most optimal design that can generate highest torque and efficiency. Turbine with angle of attack 29o has a faster inflow of fluid hitting the runner blades, converted more velocity energy to rotational speed, also indicated with a reduced exit angle in the outlet. The pressure at the center and exit of the impeller was lower, and also lower turbulent kinetic energy indicating a higher conversion of kinetic energy into rotational motion.

Research limitations – Limitations of the study include the assumption of idealized flow conditions in the CFD model, which may not fully capture the complexities of natural water flows.

Originality/value – This study contributes to the existing knowledge on cross-flow turbines by providing insight into the angle of attack's effect on turbine performance specifically for more efficient and adaptable of hydro power generation.

Keywords: Hydropower, Cross-Flow Turbine, Angle of Attack, Computational Fluid Dynamics, Efficiency

The Effect of Epoxy Resin on the Compressive Strength of Short Laminated Bamboo Columns

| Zulmahdi Darwis[1], Achmad Basuki[2], Yani Bhayusukma, S. A[3]. Kristiawan[4], Javil Egi Pratama Abdurahman[5], Muhammad Adha Ilhami[6]

[1,2,3,4]Department of Civil Engineering, Universitas Sebelas Maret., Indonesia, [5]Department of Civil Engineering, Universitas Sultan Ageng Tirtayasa, Indonesia, [6]Study Program of Industrial Engineering and Management, Universitas Sultan Ageng Tirtayasa, Indonesia

Abstract

Background – The use of laminated bamboo columns as an alternative building material is gaining increasing attention, particularly as a substitute for wood in construction. The bamboo laminating technique allows for the creation of construction materials with desired mechanical properties

Purpose – This study aims to evaluate the compressive strength and damage patterns of short laminated bamboo columns after compression testing

Design/methodology/approach – The experiment involved physical and mechanical testing of bamboo, as well as compression tests on short laminated bamboo columns with dimensions of 10 cm × 10 cm × 30 cm. Three treatment variations were tested: normal laminated columns, columns coated with epoxy resin, and columns reinforced with steel plates

Findings – The results showed that normal laminated bamboo columns had an average compressive strength of 28.044 MPa, with damage occurring at the top end of the column. Columns coated with epoxy resin exhibited an average compressive strength of 28.774 MPa, with damage patterns including cracks in several parts of the column. The columns reinforced with steel plates recorded the highest average compressive strength of 31.138 MPa, with damage concentrated in the area between the steel plates. These findings provide insights into the effectiveness of various treatments on the compressive strength and damage characteristics of laminated bamboo columns

Research limitations – 1, The bamboo used is petung bamboo (Dendrocalamus sp) from Pandeglang Banten 2. The self-weight of the structure is ignored 3. Loading using static axial

Originality/value – Research on strengthening laminated bamboo columns has been conducted using CFRP, BFRP, and AFRP polymer fibers, which wrap the column entirely to enhance axial strength. Failures observed in short columns typically involve shear cracks at the ends of the column, while slender columns exhibit buckling. The proposed research aims to strengthen laminated bamboo columns by encasing the columns with steel plates and epoxy resin on damaged bamboo sections to assess the increase in axial strength and the types of failure that occur.

Keywords: Laminated Bamboo columns, Compressive Strength, Epoxy Resin

Study of Two-Layer Surface Hardfacing by Shielded Metal Arc Welding on Wear Resistance of Low Alloy Steel in Equipment at Wood Processing Mill Pulp and Paper Industry

| Budi Ari Sasmito Simatupang[1], Priyo Tri Iswanto[2]

[1,2]Department of Mechanical Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia, 55281,

Abstract

Background – Wear caused by friction on the surface of wood processing equipment in the pulp and paper industry cause short and uneconomical service life. Mostly the part of equipment made from low alloy steel with content of Carbon 0.396%, Silica 0.209%, Manganese 0.781%, Phosphorus 0.0465%, Sulphur 0.0242%, Chromium 0.113%, Molybdenum 0.0082%, Nickel 0.0429%. Improving the wear resistance of the surface by hardfacing with welding is an attractive solution that is easy to apply, low cost, relatively short in application time, thereby avoiding major impact on operations.

Purpose – This study aims to evaluate effectiveness of hardfacing welding with variations of two layers on the surface equipment in improving wear resistance due to friction, hardness and microstructure observations pre and post weld hardfacing.

Design/methodology/approach – Hardfacing was conducted by SMAW(Shielded metal arc welding) welding, electrode NX100-4mm aws (American welding society) e fe Cr-a1, composition Cr, Si, Mn, Mo, Ni, polarity DC+ position 1G, parameter (170,175,180,185,190 Ampere). Specific wear was observed using a High-speed universal wear testing machine Type OAT-U. Surface hardness was observed using Mitutoyo HH-411 Rebound type portable Hardness Tester, microstructure observations using microscope.

Findings – Specific wear before hardfacing 0.000268 mm2/kg, hardness 95Hv. The optimal parameters were obtained at 185 A, specific wear 0.000044 mm2/kg increased by 6.042 x, parameters 180, 190, 175, 170 A specific wear 0.0000452 mm2/kg, 0.0000475 mm2/kg, 0, 0000480 mm2/kg, 0.0000567 mm2/kg and current 185 A hardness 559Hv increased 5.84x, parameters 180, 190, 175, 170 A hardness are 536 Hv, 493 Hv, 483 Hv, 462 Hv.

Research limitations – Research limitations focus observing specific wear and effect of hardness 2-layer hardfacing following actual conditions so that later it becomes a reference in maintenance activities. In the future, observation with EDS, SEM is needed to see the carbide structure formed also corrosion testing considering that the element of wood washing causes corrosion and affects the service life.

Originality/value – Earlier researches, hardfacing welding carried out with FCAW, TIG, few with SMAW, with each reasearches different electrode, compositions, number of layers, parameters, unspecified applications what type of industry. In this study, hardfacing welding SMAW parameters different, following of wood processing in the pulp and paper industry, different of chemical composition electrode, base metal, electrode C 5.22%, Cr 32.5%, Si 2.15%, Mn 1.31%, Mo 0.02%, Ni 0.11%, W 0.01%, base metal from a piece of equipment.

Keywords: Hardfacing, Wear, Hardness, SMAW, Low alloy steel

Crashworthiness Analysis of Trailer Structure of Indonesian High Speed Train

| Muh Luqman Khakim[1], Achmad Syaifudin[2]

[1,2]Institut Teknologi Sepuluh Nopember

Abstract

Background – There are two safety systems installed on high-speed train, i.e. active safety system and passive safety system. While the passive safety system was already employed, there are still many cases of train collisions that cannot be avoided.

Purpose – The purpose of this research is to evaluate the first developed Indonesian high-speed train (HST) trailer design compliance with crashworthiness standard (SNI 8826 and EN 15227).

Design/methodology/approach – This research uses quantitative method through a numerical crashworthiness analysis using ANSYS - LS DYNA software. The object of research is the first Indonesian high-speed train (HST) trailer developed by PT INKA. The analysis was carried out by the case of collision between a train and a rigid wall at the velocity of 36 km/h (equivalent to 10 m/s) regulated by BS EN 15227:2008. The structure was simplified in form of surfaces. The material used was Aluminum 6005A-T6 with Johnson–Cook material model to define high strain rate properties. The connection between the parts of structure was defined by share topology and bonded contact. With this simulation, the data i.e. deformation length, total energy absorption, and deceleration pulse was collected. The data was validated by evaluating the hourglass energy. Typically, the hourglass energy maintained under 10% from the total energy.

Findings – From the simulation result, we obtain that the deformation in the survival space is 49 mm, the total kinetic energy absorbed by structures is 2.3 MJ, and the maximum wheelset displacement is 81 mm. This value is acceptable by the standard. But the average deceleration pulse reaches 11.12 g. This value is much higher than the acceptable value which is 5g.

Research limitations – This research has limitations in parameter. The crash velocity regulated by the used standard was 36 km/h while the actual crash velocity was above 100 km/h. The next limitation is the object. The evaluated object is under development progress which means its geometry may change again.

Originality/value – With this research, the safety awareness of the first Indonesian HST Trailer was evaluated. The result can help for the further crashworthiness implementation research e.g. crash zone area and impact module application.

Keywords: Crashworthiness, Vehicle Safety, Occupant protection, High-speed Train, Crash Energy.

Track:
Economics
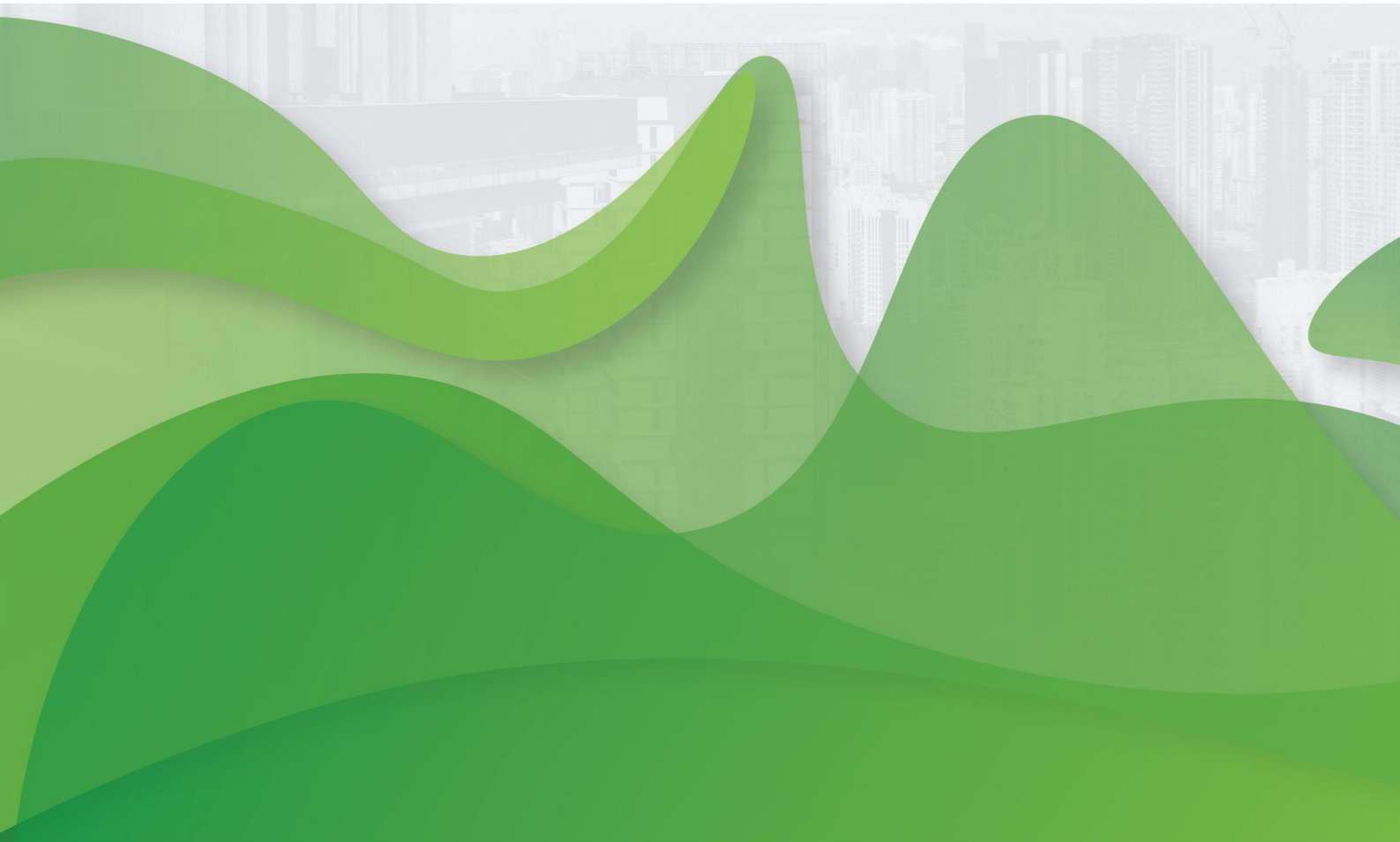
The Effects of BOPO, Money Supply, and the Provincial Open Unemployment Rate influence the profitability of Bank Pembangunan Daerah (BPD)

│ **Purwanto Widodo**

Universitas Pembangunan Nasional Veteran Jakarta

Abstract

Background – BPD plays a crucial role in boosting the local economy. The profitability of BPD influences the economic situation of the area. This study aimed to find out if the ratio of operating expenses to operating income (OEOI), money supply, and the Provincial Open Unemployment Rate affect BPD's profitability.

Purpose – This study explores the impact of internal banking and macroeconomic elements on the profitability of the Regional Development Bank (BPD Bank), which plays a crucial role in fostering growth and sustainability of the regional economy.

Design/methodology/approach – The analysis relies on panel data from all BPD institutions in Indonesia covering the period from 2008 to 2021. The analysis utilizes the General Method of Moments (GMM), which effectively addresses the issues of endogeneity, estimation efficiency, and model adaptability present in static panel data.

Findings – The findings revealed that the operating expenses to operating income ratio (OEOIR), money supply, and Provincial Open Unemployment Rate significantly influence the profitability of BPD, measured in this study through ROA. The results indicate that following a shock, BPD will require approximately 0.29 years to achieve the ideal level of profitability

Research limitations – The factors taken into account are limited to: The dependent variable is solely ROA. Additionally, it does not make a distinction between the island of Java and areas beyond Java Island, recognizing that these regions have different economic circumstances.

Originality/value – Studies examining the profitability of BPD are still infrequently undertaken, particularly with GMM analysis.

Keywords: BPD, OEOIR, Money Supply, Unemployment Rate, Profitability Bank

Government Expenditure and the Choice of Stock Capital: Empirical Test in Banten (Indonesia) and Hebei (China)

| Mahendro[1], Faisal Marzuki[2]

[1,2]Universitas Pembangunan Nasional Veteran Jakarta

Abstract

Background – This work looks at the close relation between innovation and industrialization.

Purpose – The contribution of stock capital analysis to explain the successful innovation process in rural area.

Design/methodology/approach – Using Banten and Hebei for empirical study and comparison, we observe a link between stock capital and industrialization explaining innovation. Elements of stock capital are discussed, including machinery and equipment, and construction and infrastructure. Elements of the growth rate are also examined; specifically, consumption, investment and net export.   Comparison are made between both stock capital, demonstrating effects in the mid run.

Findings – We argue that machinery and equipment has served to explain the success or failure of the industrialization process in Banten and Hebei, rather than construction and infrastructure. Therefore, the allocation of government expenditure that is mostly transferred from central government to construction and infrastructure development in Banten should be reallocated to machinery and equipment. Comparison to Hebei, the development of construction and infrastructure is important but it follows machinery and equipment, not the inverse.

Research limitations – Data

Originality/value – This work provides new analysis of stock capital and innovation in Indonesia

Keywords: Stock Capital, Industrialization, Innovation, Infrastructure, Growth

Stakeholder Dynamics in Downstreaming in Indonesia: A Case Study of Nickel Mining

│ Achmad Nur Hidayat

Universitas Pembangunan Nasional Veteran Jakarta

Abstract

Background – Indonesia possesses significant mineral resources, making it a crucial player in the global mining industry. The implications of this research include legislative recommendations to the Indonesian government for the establishment of more inclusive legislation, as well as ways businesses can improve their engagement with local communities and stakeholders.

Purpose – This research aims to examine the interests of critical stakeholders including the government, mining companies, local populations, and environmental groups to ensure the long-term viability of the downstream mining sector. The study aims to identify the dynamics of relationships and interests. It reveals that conflicts of interest exist, and if not managed effectively, they may impede the industry's progress

Design/methodology/approach – However, there are opportunities for collaboration that, if maximized, can boost added value for all stakeholders, including enhancing the welfare of local communities. The consequences of this research include legislative recommendations to the Indonesian government for the establishment of more inclusive legislation and ways for businesses to improve their interactions with local communities and other stakeholders.

Findings – The consequences of this research include legislative recommendations to the Indonesian government for the establishment of more inclusive legislation and ways for businesses to improve their interactions with local communities and other stakeholders. The implications of this research include legislative recommendations to the Indonesian government for the establishment of more inclusive legislation, as well as ways businesses can improve their engagement with local communities and stakeholders.

Research limitations – One limitation of this study is its geographical scope, which focuses primarily on key mining sites in Halmahera and Morowali. While these sites are significant, they may not represent the full spectrum of stakeholder experiences across Indonesia. Additionally, the reliance on qualitative data such as interviews may introduce bias, as respondents could be influenced by personal interests or external pressures. Future research could benefit from expanding the geographical scope to include a broader range of mining locations and incorporating quantitative methods to provide more generalizable insights.

Originality/value – The implications of this research include legislative recommendations to the Indonesian government for the establishment of more inclusive legislation, as well as ways businesses can improve their engagement with local communities and stakeholders.

Keywords: Downstream Sector, Stakeholder Analysis, Stakeholder Dynamics, Mining Regulation, Public Policy

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Exploring Key Determinant of Fish Exports through System Thinking Analysis in the Sustainable Blue Economy of Wakatobi, Southeast Sulawesi, Indonesia

| Vita Sarasi[1], Dina Yulianti[2], Deny Saefulhadjar[3], Oman Abdurahman[4], Desi Aswandari[5]

[1]Universitas Padjadjaran, Faculty of Social and Political Sciences, [2]Universitas Padjadjaran, Faculty of Animal Husbandry, [3]Universitas Padjadjaran, [4]Bandung Polytechnic of Energy and Mining, [5]Master's Program in Environmental Health, Airlangga University

Abstract

Background – Wakatobi, Southeast Sulawesi, Indonesia, holds significant potential in the blue economy, particularly in sustainable fisheries. In October 2024, Wakatobi marked a milestone with its first export of 3,200 kilograms of live grouper to Hong Kong, signaling entry into international markets. Despite an annual capture fisheries potential of 18,855 tons, only 6.4% is utilized, indicating substantial growth opportunities.

Purpose – This study aims to identify the critical factors influencing fish exports in Wakatobi, focusing on infrastructure, human resources, policy, and market access.

Design/methodology/approach – Using a system thinking approach, the study employs in-depth interviews and system mapping to explore interactions within the fishery supply chain. System thinking reveals feedback loops and causal relationships, highlighting how outdated port facilities, limited cold storage, and insufficient processing capacity lead to post-harvest losses that reduce export quality and volume.

Findings – The study finds that only 6.4% of the potential fishery yield is currently exported, with post-harvest losses estimated at 15-20% due to inadequate cold chains and processing facilities. Outdated port infrastructure and unreliable transportation cause delays that further degrade fish quality, affecting acceptance in premium markets. Furthermore, local fishers' training gaps in best handling practices result in fish quality issues, limiting market reach. A multi-faceted approach involving investments in infrastructure, expanded cold storage, reliable transport networks, and training programs is recommended to improve product freshness, meet international standards, and increase export volume.

Research limitations – The study is limited by data quality issues, particularly in estimating post-harvest loss rates and transportation reliability, which restrict the precision of the quantitative insights. Additionally, the study's scope is confined to fish exports, omitting other blue economy sectors.

Originality/value – This research uniquely applies system thinking to assess and integrate policy recommendations with local economic goals, proposing a structured, systems-based strategy to boost Wakatobi's export readiness. By combining qualitative and quantitative insights, the study advocates for strategic partnerships to optimize resources. Future research could explore econometric modeling to evaluate policy impacts on efficiency, as well as expanding into sustainable aquaculture and marine ecotourism to enhance Wakatobi's economic resilience.

Keywords: Sustainable Blue Economy, System Thinking, Fish Exports, Wakatobi, Southeast Sulawesi

Track:
Computer Sciences
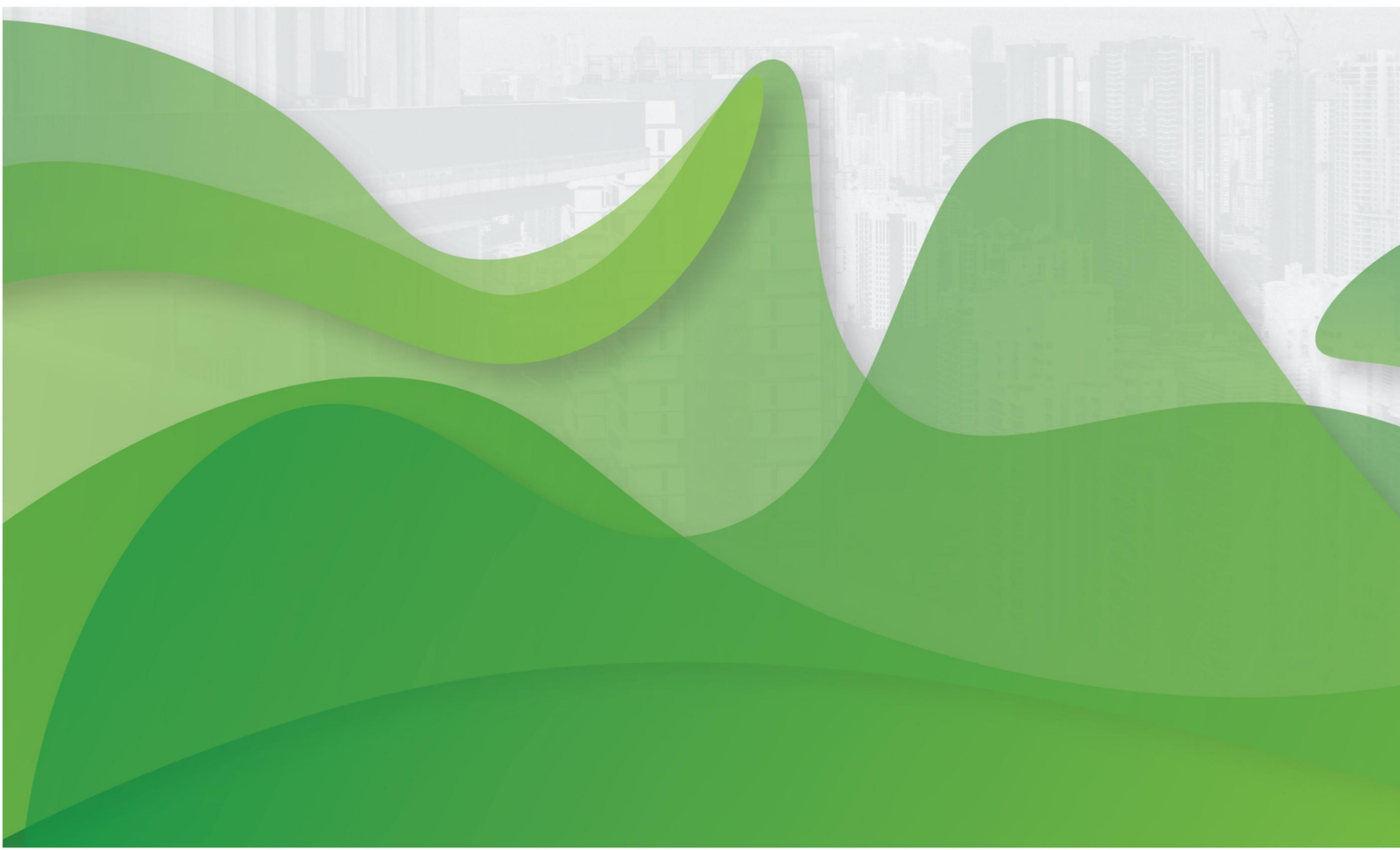
TeaGuard: Mobile-based Tea Plant Pest and Disease Detection Application

| Wisnu Andika[1], Neny Rosmawarni[2]

Universitas Pembangunan Nasional Veteran Jakarta, Universitas Pembangunan Nasional Veteran Jakarta

Abstract

Background – Indonesia as the sixth largest tea exporter in the world often faces challenges in tea production due to leaf diseases that can reduce the quality and quantity of production. To help overcome this problem, a mobile application called TeaGuard was developed using the Convolutional Neural Network (CNN) model to detect diseases in tea leaves. This application allows users to identify diseases at any time using a smartphone camera . In addition to detection, TeaGuard provides information about tea leaf diseases and education for the general public. The application was developed using Android Studio and has three main features: disease detection, disease information, and application explanation. The successfully designed CNN model has an accuracy of 83%, and after being converted into a mobile application, testing was carried out with 10 images of tea leaves from the garden in Puncak Cisarua, Bogor.

Purpose – The aim is to create an application that can help tea farmers or the general public about the types of tea leaf diseases, how to prevent them and how to detect them and treat them through applications made on mobile devices.

Design/methodology/approach – The method used in developing this application is Rapid Application Development (RAD).

Findings – The successfully designed CNN model has an accuracy of 83%, and after being converted into a mobile application, testing was carried out with 10 images of tea leaves from the garden in Puncak Cisarua, Bogor.

Research limitations – This application was created using the CNN method for AI and for mobile application development using RAD

Originality/value – The Teaguard application is the only application that uses live images to detect tea leaf diseases using the CNN method

Keywords: Convolutional Neural Network, Tea Leaves, Disease, Detection, Mobile

Differences In Human And Computer Thinking Logic Flows Obstacles In Learning Programming Algorithms

│ Asnurul Isroqmi[1], Ermatita[2], Yusuf Hartono[3]

Universitas Sriwijaya, Universitas Sriwijaya, Universitas Sriwijaya

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Abstract

Background – Programming Algorithms is one of the courses at universities that is given in study programs in the IT field and other exact study programs. The purpose of this course is to make students skilled in creating computer programs using various programming languages in solving various computational problems. In learning practice, many students still have difficulty compiling algorithms due to a lack of understanding of computer logic or workflow. There is a difference in how the flow of human thinking logic tends to be contextual and the flow of computer logic that works based on ON and OFF switching or 0 and 1. Human logic tends to be adaptable, context dependent, and the influence of subconscious processes. Computer logic is more structured, formal, and rigid, depending on predetermined rules and models

Purpose – The purpose of this study is to determine how the differences in the flow of logical thinking can cause students' difficulties in compiling the steps to solve programming algorithms. Students' tendency to think contextually becomes an obstacle when they have to compile steps to solve problems that must follow the flow of computer logic

Design/methodology/approach – The method used in this study is a literature study by collecting and reviewing library data which is then connected to research to get answers to problems

Findings – Obstacles in learning algorithms

Research limitations – Methodology using literature study

Originality/value – Differences in logic or work flow between humans and computers

Keywords: programming algorithm, computer logic, switching

An Organized Review of Cyber Security Risk Implementation in Organization

│ Ishfihana Hafny Noer[1], Spits Warnars Harco Leslie Hendric[2], Haryono Soeparno[3]

[1,2,3]Bina Nusantara University

Abstract

Background – Over 80% of organizations experienced more than one data breach in 2022, according to the IBM Data Breach Report 2023. The report also showed a 13% increase in ransomware attacks, and the global average data breach cost in 2023 was $4.45 million in the previous five years. Despite these concerning trends, there is a critical gap about effective cybersecurity risk management strategies in the organization context.

Purpose – Effective cybersecurity risk management ensures best practices for preventing cyberattacks are present throughout the organization and that a suitable response plan is a prerequisite to reduce threats. This study conducts a thorough review of the organizational cybersecurity risk implementation.

Design/methodology/approach – Articles from 2014–2024 Scopus-indexed journals are chosen. Implementation strategies and outcomes were assessed using the PICO framework to choose keywords including "cybersecurity risk management," "organizational security implementation," and "cyber threat mitigation." Later PRISMA method guidelines were used to ensure comprehensive coverage and methodological rigor.

Findings – Our analysis reveals three predominant themes: (1) emerging AI-driven risk assessment methodologies; (2) integration of human factors in security protocols; and (3) adaptive risk mitigation strategies. The analysis shows general risk factors, strategies for risk mitigation, and minimum requirements for implementing cybersecurity in organizations

Research limitations – Open access papers and English-language papers on major corporations were used for research limitations, but they may affect smaller companies.

Originality/value – This comprehensive study ties theoretical risk management models to real implementation issues, giving organizations evidence-based cybersecurity advice

Keywords: Cybersecurity Risk Management, Systematic Review, the PICO Method, PRISMA Method, Risk Mitigation

Track: Entrepreneurship
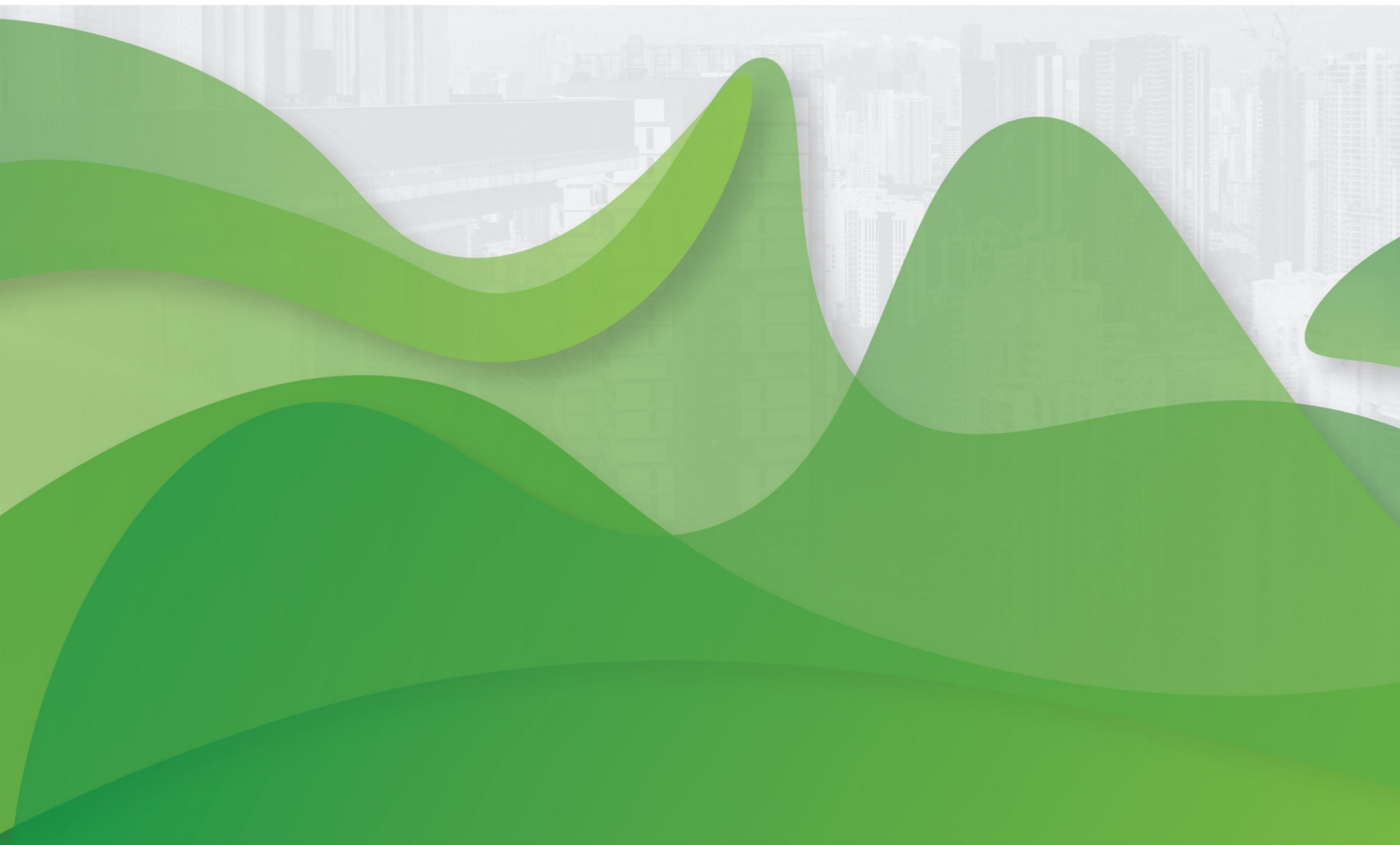
Community Based Entrepreneurship Development Towards Sustainable Ecotourism: Case Study in South Bogor, Lembu Anyar, Curug Kembar Cisangku and Curug Leuwi Hijau.

| Sariat Arifia[1], Ermiani, Beti Renitawati[2], Zisca Marcellina Mukti[3]

ITB Vinus Bogor & Universitas Al Azhar Indonesia, ITB Vinus Bogor, ITB Vinus Bogor, ITB Vinus Bogor

Abstract

Background – Community-based ecotourism development in the southern of Bogor Regency has a great potential to improve the welfare of local communities. This initiative aims to reduce the economic disparity between the northern and southern region. This ecotourism initiative stems from local community efforts to utilize the natural beauty around them to enhance economic welfare and preserve the environment.

Purpose – 1. Identify the potential of community based ecotourism in the southern region of Bogor Regency. 2. Analyze the role of the government in the ecotourism development. 3. Evaluate the social and economic impacts of ecotourism development on local communities. 4. Develop effective marketing and management strategies for community based ecotourism.

Design/methodology/approach – This study employs a qualitative approach using case study methods. Data were collected through in-depth interviews. The interviews were recorded and subsequently transcribed using a transcription application to ensure accuracy. Thematic analysis techniques were used to analyze the obtained data. To validate the findings and obtain diverse perspectives, the study utilized triangulation, intercoder reliability, audit trails, and member checking.

Findings – This study finds that community-based ecotourism development has significant potential to improve community welfare and preserve the environment. Effective marketing strategies, including digital marketing, community engagement, and partnerships with travel agencies, are essential to promote these ecotourism sites. Collaboration between the government and local communities can ensuring sustainable development and equitable growth for the region.

Research limitations – This study is limited to southern regions of Bogor Regency. The data collection took place throughout October, 11th. The data collected only comes from interviews with a number of respondents. The context of the study focuses on understanding the social and economic impacts of community-based ecotourism through qualitative methods. The basic concepts used for data analysis include thematic analysis, which allows for in-depth exploration of themes related to ecotourism potential, government roles, community innovation, and social and economic impacts.

Originality/value – The development in the rural southern regions of Bogor Regency, showcases innovative approaches driven by local communities to leverage natural resources for economic and environmental benefits. By describing the distinct characteristics of these sites and the community efforts behind them, the research emphasizes the originality and value of the study.

Keywords: Sustainable Ecotourism, community based entrepreneurship, Entrepreneurship, economic disparity, community based ecotourism

Track: Accounting
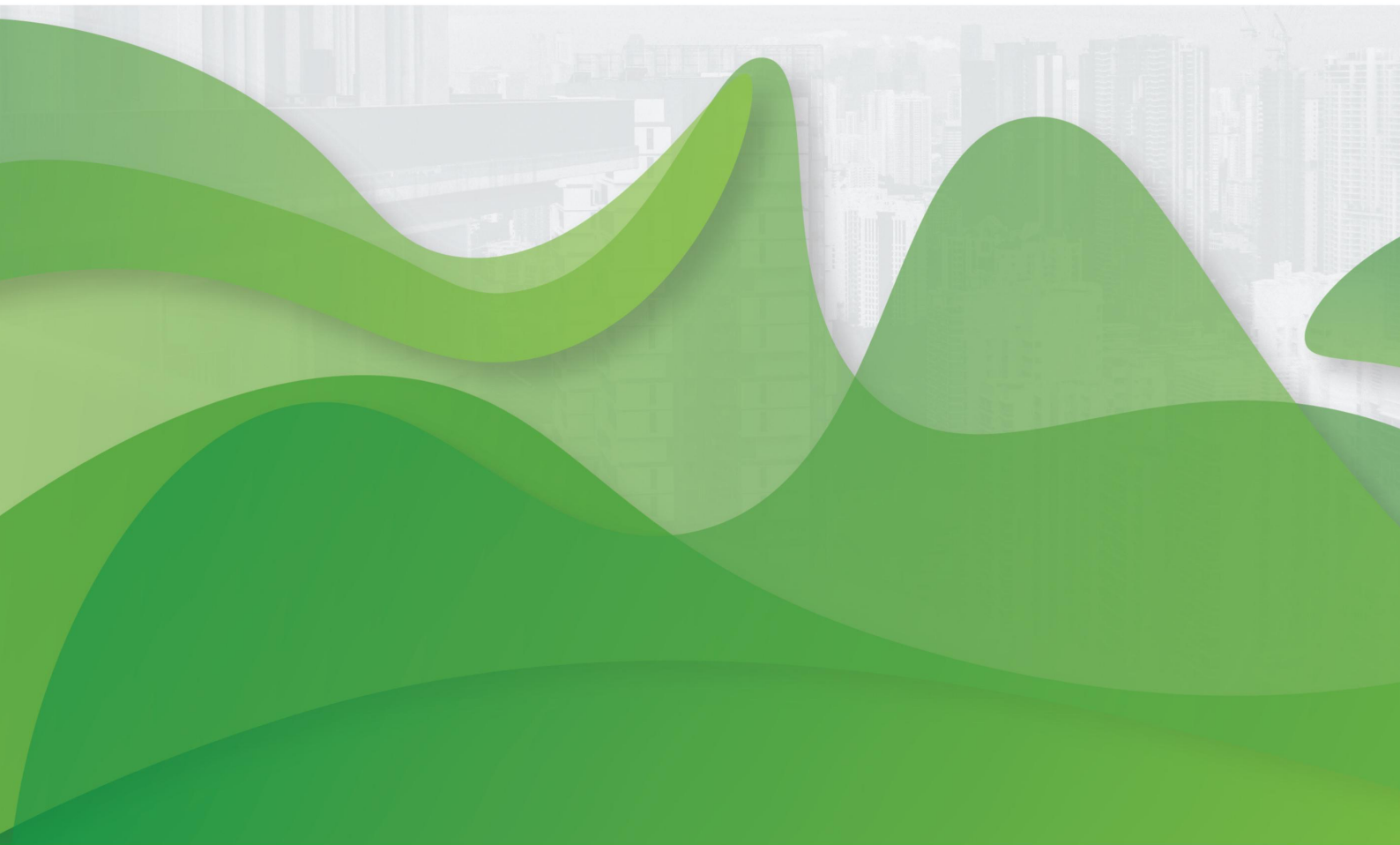
The Role of Sharia Principles for Fraud Prevention in Sharia Business

| Bintang Cipta[1], Mohammad Raihan[2], Mohamad Heykal[3]

BINA NUSANTARA UNIVERSITY, BINA NUSANTARA UNIVERSITY, BINA NUSANTARA UNIVERSITY

Abstract

Background – This research aims to explore the relationship between Sharia principles and fraud prevention in business activities. This research investigated the ethical dimensions and Sharia principles contributing to fraud prevention

Purpose – This research employed a quantitative approach using surveys distributed to business professionals familiar with Sharia practices

Design/methodology/approach – This research employed a quantitative approach using surveys distributed to business professionals familiar with Sharia practices

Findings – This research shows that the principle of fathonah (wisdom) significantly impacts fraud prevention. In contrast, the principles of siddiq (honesty), amanah (trust), and tabligh (transparency) do not show statistically significant evidence. This research contributes to a deeper understanding of how Islamic ethical principles can be integrated into business practices to enhance fraud prevention. It highlights the potential for Sharia principles to offer a robust framework for ethical conduct in business, contributing to more effective fraud prevention strategies. By emphasizing the importance of wisdom, the study suggests that a nuanced application of Sharia principles can lead to better management practices and reduced incidences of fraud in Sharia-compliant businesses. This research thus bridges the gap between theoretical ethical frameworks and practical applications in the realm of fraud prevention

Research limitations – . This research thus bridges the gap between theoretical ethical frameworks and practical applications in the realm of fraud prevention

Originality/value – This research contributes to a deeper understanding of how Islamic ethical principles can be integrated into business practices to enhance fraud prevention. It highlights the potential for Sharia principles to offer a robust framework for ethical conduct in business, contributing to more effective fraud prevention strategies. By emphasizing the importance of wisdom, the study suggests that a nuanced application of Sharia principles can lead to better management practices and reduced incidences of fraud in Sharia-compliant businesses. This research thus bridges the gap between theoretical ethical frameworks and practical applications in the realm of fraud prevention

Keywords: business, sharia, fraud

The Implications of Environmental, Social, and Governance and Intellectual Capital on Sustainable Growth in ASEAN-6 Countries

| Sarah Widyana Putri[1], Dianwicaksih Arieftiara[2], Ferry Irawan[3]

UPN Veteran Jakarta, UPN Veteran Jakarta, UPN Veteran Jakarta

Abstract

Background – The ASEAN-6 (Indonesia, Malaysia, Singapore, Thailand, Philippines, and Vietnam) are actively pursuing inclusive and sustainable economic growth. Their commitment is reflected in a strong focus on ESG ratings for transparency and sustainability, along with an emphasis on intellectual capital, driven by the quality of human resources. This study explores how ESG and IC contribute to long-term sustainable growth, highlighting the region's efforts to balance economic progress with responsible and innovative business practices in rapidly evolving economies.

Purpose – The purpose of this study is to examine the impact of Environmental, Social, and Governance (ESG) and Intellectual Capital (IC) on sustainable growth, using firm size and firm age as control variables. The analysis is based on data from 85 companies in ASEAN-6 countries over the period 2020–2022.

Design/methodology/approach – This study employs a quantitative approach, utilizing STATA 17 for statistical analysis. It investigates the positive and significant influence of ESG and Intellectual Capital on sustainable growth, while controlling for firm size and firm age. Validity and reliability are ensured through robust statistical diagnostics and established measurement models.

Findings – The findings show that ESG significantly enhances sustainable growth by improving long-term potential and competitiveness, while high-quality ESG disclosures yield better outcomes. Intellectual Capital (IC) also positively impacts growth through efficiency, innovation, and human resource development, driving performance and competitiveness. Firms with strong ESG and IC practices achieve better profitability. Additionally, firm age significantly influences growth, whereas firm size has minimal impact. These results underscore the importance of integrating ESG and IC into business strategies for sustainable success.

Research limitations – However, the study has limitations, including its focus on ASEAN-6 companies, reliance on inconsistent public data, and the exclusion of certain control variables. The author should clarify the unit of analysis, data collection timeframe, and research variables for improved transparency.

Originality/value – The originality of this study lies in integrating insights from Wang et al. (2022) on ESG and sustainable growth in China and Balaji & Mamilla (2024) on intellectual capital in India. It introduces unique proxies for sustainable growth and incorporates firm size and firm age as control variables, offering a fresh perspective on the topic.

Keywords: ESG, Intellectual Capital, Sustainable Growth

Determining Greenwashing in Global ESG Research: A Bibliometric Analysis

│ **Dianwicaksih Arieftiara**

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Abstract

Background – The growing attention from the global towards sustainable business practice and regulatory framework of the sustainability reporting becomes mandatory. The sustainability reporting serves as companies ethical commitment disclosure, specifically in ESG activities, however, it faces the challenges from greenwashing behavior. The behavior impresses that the company is environmentally responsible, while their actual practice contradicts the image. Existing literature has primarily focused on the factors that impact the quality of ESG reporting and greenwashing. There is currently no literature that maps the extent of existing research on greenwashing in a global context.

Purpose – This study presents a bibliometric analysis of global research focused on determining greenwashing within ESG practices, examining keywords and country aspects.

Design/methodology/approach – We utilize VOSviewer to examine keyword co-occurrence and geographic distribution in studies pertaining to greenwashing, sustainable development, and ESG reporting.

Findings – The result showed that the chosen keywords are identified as a main idea associated with corporate ethics, transparency, and sustainability assertions. These aspects focus highlight the scholarly and practical importance of recognizing and addressing the greenwashing activities of companies. The study reveals that the majority are from the United States, China, the United Kingdom, and Germany, this also likely shaped by regulatory demands and sophisticated ESG frameworks. It also reveals that some are focussing on emerging economies such as India, Malaysia, and Indonesia exhibit heightened participation, indicating an increasing understanding of environmental concerns and a necessity for better identification of greenwashing. The disparate allocation of research among regions indicates that certain locations are deficient in establishing uniform methods for detecting greenwashing.

Research limitations – We use Scopus database consist of 1.642 documents for all year.

Originality/value – This study contributes to provide evidence of the extent global trend of greenwashing as ethical business practice. By mapping keywords and country origins of the authors, the study offers broad views of how greenwashing is conceptualized and addressed across different regions and industries, and eventually bringing insights for research gaps. This bibliometric analysis maps current research trends and identifies gaps, offering insights for policymakers and researchers aiming to establish effective frameworks for assessing greenwashing, thereby enhancing transparency and authenticity in global ESG practices.

Keywords: Greenwashing, ESG, Sustainability_Reporting, Bibliometric_analysis, Global_trends

Track: Environmental Science
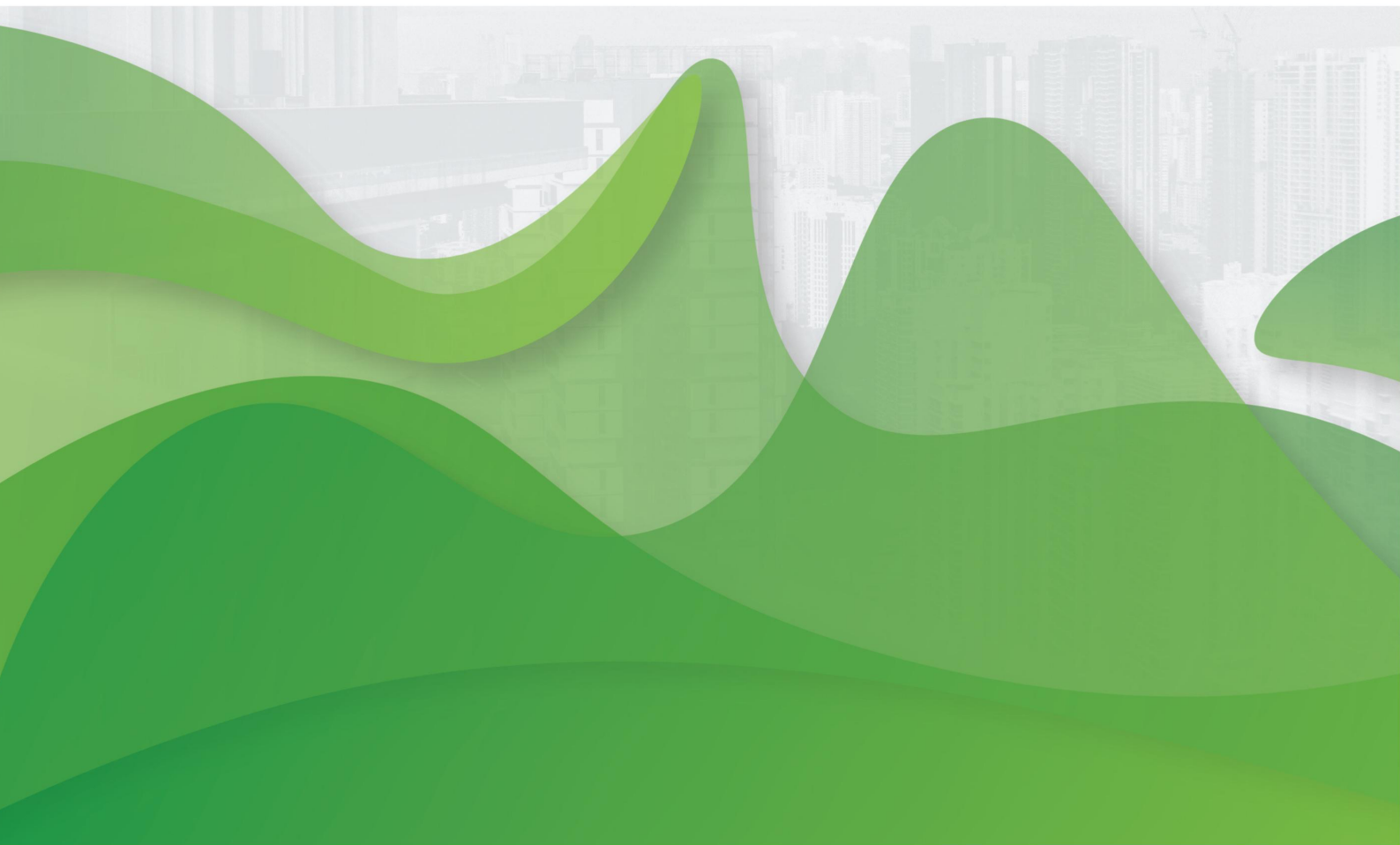
Water Quality Analysis of Klampok River in Semarang

| Winardi Dwi Nugraha[1], Adil Syah Johari[2], Diah Ayu Nilamsari[3], Istnaya Widya Sabila[4], Tirta Teja Subekti Ningrum[5]

Diponegoro University, Diponegoro University, Diponegoro University, Diponegoro University, Diponegoro University

Abstract

Background – Water quality refers to the measurable conditions and characteristics of water. Water pollution is the contamination of water bodies by various unwanted substances. With the increase in population and community activities in the Klampok River Basin, there is an increase in the amount of pollutant load entering the water body.

Purpose – This research aims to analyze water quality and concentration values according to water discharge to environmental conditions in the Klampok River Basin, Semarang Regency.

Design/methodology/approach – This research is a quantitative case study in which data was obtained by sampling at each representative point in the area.

Findings – The water quality of the Klampok River compared its concentration with quality standards based on the quality standards of Republic Indonesia Government Regulation No. 22 of 2021. The research results obtained 12 parameters, namely Temperature, pH, Total Solids (TDS and TSS), Turbidity, DO, BOD, Nitrate, Nitrite, Ammonia, Phosphate, and Fecal Coliform. Factors that influence the differences in pollutants in the 6 segments are the surrounding environmental conditions and also the activities carried out around the river points.

Research limitations – This research focuses on river water quality along the Klampok River, Semarang Regency with 6 segments carried out in the dry season in May 2024. Apart from being influenced by weather conditions, river water quality is also influenced by several factors such as human activity and land use in the Klampok River Watershed.

Originality/value – This is a research study regarding the quality of the Klampok River which refers to the quality standards of Republic Indonesia Government Regulation No. 22 of 2021 concerning the Implementation of Environmental Protection and Management which regulates river water quality standards.

Keywords: Klampok River, River Water Quality, River Watershed

Improving Maize Yield, Biomass, and Selected Chemical Properties of an Acid Soil Using Organic Amendment From Chicken Dung

| Siti Hadhirah Azlan[1], Ahmed Osumanu Haruna[2]

Universiti Islam Sultan Sharif Ali, Universiti Islam Sultan Sharif Ali

Abstract

Background – The tropics essentially have Ultisols and Oxisols, which are highly acidic with pH values below 5.5, thus causing them to be relatively unfavorable for production agriculture without suitable interventions. This results in soil with nutrient deficiencies and high concentrations of Al and Fe, reduced microbial activities, and critical biological processes. These challenges contribute to Brunei's low agricultural self-sufficiency. These challenges could be alleviated through sustainable waste management practices by transforming agricultural waste into high-quality organic amendments (OA) to improve soil quality. With the growing number of poultry farms in Brunei, significant chicken dung production is a concern. Hence, the country's sustainable management of chicken dung is essential for producing maize for human consumption and animal feed.

Purpose – To improve selected soil chemical properties, and maize yield and biomass production.

Design/methodology/approach – Field trial was conducted with five treatments of OA using a Random Complete Blocking Design with triplicates. The treatments evaluated were T1, chemical fertilizer only, T2; 9 kg of OA + chemical fertilizer, T3; 6.75 kg of OA + chemical fertilizer, T4; 4.5 kg of OA + chemical fertilizer; and T5, 2.25 kg of OA + chemical fertilizer. The trial lasted for 75 days, during which the maize yield, stem, leaves, and soil samples were collected and analyzed using standard procedures

Findings – The soils with OA improved the maize yield and biomass compared to chemical fertilizer. The OA treatments reduced soil exchangeable acidity, Al, H, and improved nitrate, Mg, Na, and EC. However, no differences were observed in the soil pH, TOC, total N, and P, K, NH4, and Ca. Generally, the different amounts of the OA were more effective in improving maize yield, biomass, and some critical chemical properties.

Research limitations – Changes in the soil's physico-chemical characteristics and residual effects could be observed if the trial is conducted for another two cycles.

Originality/value – Limited studies have been conducted on restoring agricultural soil health in Brunei. This study addresses the gap by introducing a new approach to restoring Brunei's soil with high-quality organic amendment. Thus, chemical fertilizer use is minimized, and a sustainable solution for managing agricultural waste is provided.

Keywords: Low pH soils, food security, wastes management, soil quality, crop productivity

Removal of Glyphosate on Inceptisols Ameliorated With Geo-Biomaterial: Equilibrium and Isotherm Study

| Herviyanti[1], Amsar Maulana[2], Teguh Budi Prasetyo[3], Syafrimen Yasin[4], Mimien Hariant[5], Irwan Darfis[6]

[1,2,3,4,5,6]Universitas Andalas

Abstract

Background – Glyphosate soil contamination can have significant implications for various aspects of soil and plant systems.

Purpose – This study tested the ability of Inceptisols ameliorated with the formulation of sub-bituminous coal (SC) and biochar (B) from rice husk (B-RH), young coconut waste (B-YCW), and bamboo (B-B) to remove glyphosate in solution.

Design/methodology/approach – This study used the batch equilibrium method and approach of the Freundlich and Langmuir isotherm model with two types of ameliorants (coal and biochar)

Findings – The surface charge characteristics of Inceptisols improved with the formulation of SC and B-RH; B-YCW and B-B increased pH, organic C, and CEC, compared to the control. The removal efficiency and adsorption capacity of glyphosate with Inceptisols improved with 75% SC and 25% formulation of each biochar were B-B (94.54% and 9.45 mg g-1) > B-RH (94.41% and 9.44 mg g-1) > B-YCW (94.26% and 9.43 mg g-1) > control (86.68% and 8.67 mg g-1). The removal efficiency decreased with glyphosate concentration, while the adsorption capacity increased. Adsorption isotherms on glyphosate tend to occur in both models, where the Freundlich isotherm model explains the 50% SC + 50% B with R2 > 0.99, and the Langmuir isotherm model explains the 75% SC + 25% B with R2 > 0.99. Meanwhile, soil without amelioration (control) has significant differences compared to soil ameliorated with geo-biomaterials.

Research limitations – However, kinetic studies are needed on removing glyphosate in inceptisol ameliorated with geo-biomaterials.

Originality/value – Geo-biomaterial-based amelioration technology of SC and biochar on Inceptisols can increase the retention of glyphosate in the soil, thereby reducing leaching and absorption by plants.

Keywords: Biochar, Glyphosate, Inceptisol, Isotherm, Sub-Bituminous coal

Track:
Law
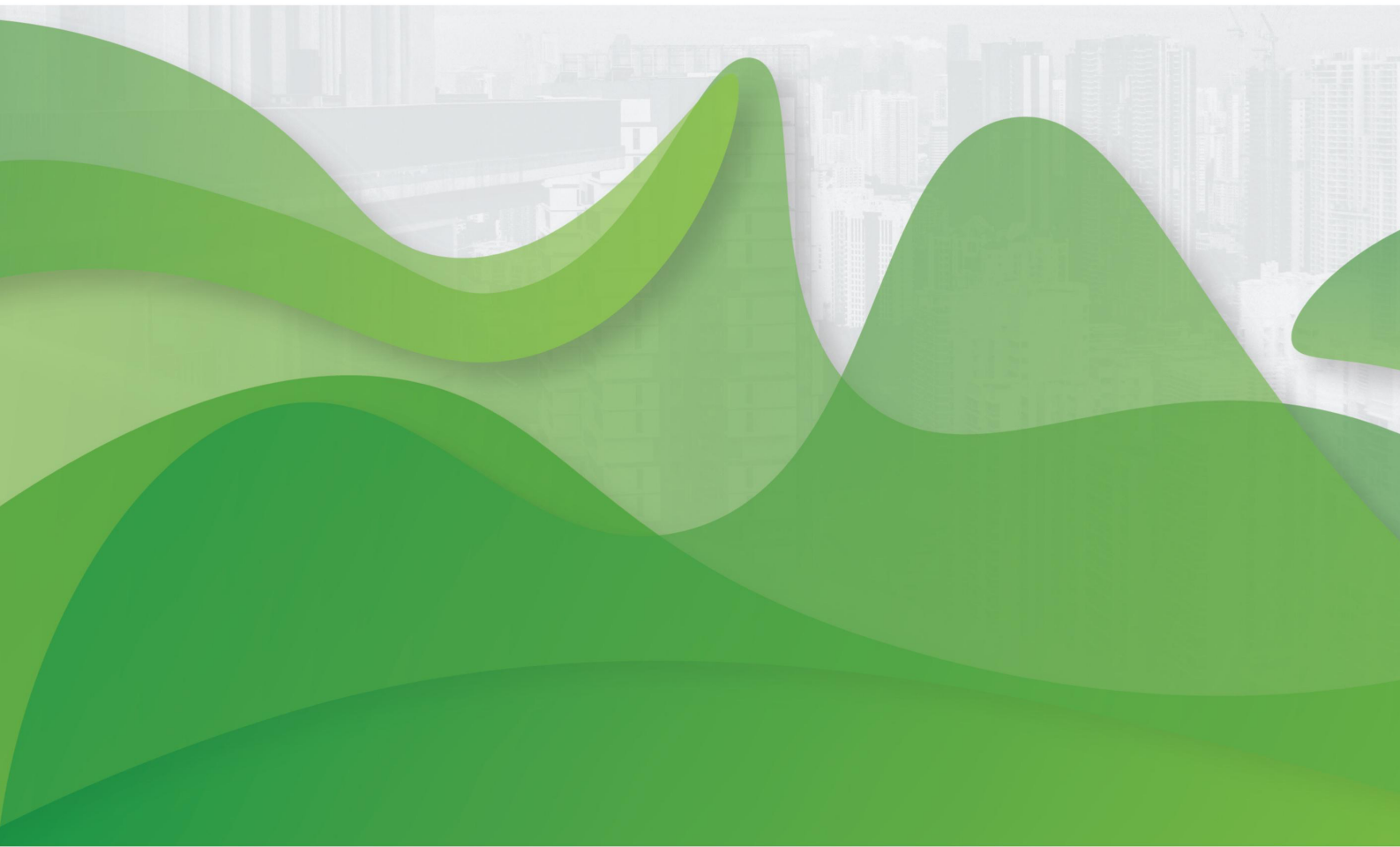
Protection of Marine Ecosystems in Indonesian Jurisdiction through International Agreements

| Yulia Hasan[1], Ruslan Mustari[2], Almusawir[3], Muh. Bone Tm Nur[4]

Bosowa University, Faculty of Law Bosowa University, c, Muh. Bone Tm Nur

Abstract

Background – The Indonesian government has entered into numerous international agreements to protect biological resources, including fish resources. Nevertheless, illegal fishing persists and is conducted by foreign fishermen from countries that are parties to international agreements. Illegal fishing is acknowledged as one of the most significant threats to the sustainability of global fisheries and has a significant impact on marine ecosystems

Purpose – The objective of this investigation is to evaluate the obstacles that nations encounter when implementing international agreements regarding the conservation of fish resources.

Design/methodology/approach – This qualitative research involves the collection of data from a variety of sources, including journals, books, and authorised institutions, to address the issue of illegal fishing. Additionally, the data collected from the literature review is analysed and described in relation to international law, national legislation, and international treaties.

Findings – The study's findings indicate that foreign fishermen' disobedience to international treaties that have been established by their country is attributable to their lack of awareness that their country is a party to these treaties. Consequently, they are unaware of the repercussions of their actions. This is due to the fact that the country of origin of foreign fishermen does not have team members who are trained in the management and enforcement of fish resources. Therefore, they are unable to socialise international treaties. Consequently, it is imperative to engage in international collaboration to address the illegal fishing that has a detrimental effect on marine ecosystems by providing training and human resources.

Research limitations – The study is restricted to the role of international agreements in protecting fish resources due to the fact that it does not involve a multitude of disciplines. It is our hope that this research will be furthered by assessing international agreements or collaboration among countries to safeguard fish resources.

Originality/value – The research's novelty is due to its investigation of the potential of international agreements to protect marine ecosystems from illegal fishing activities, thereby ensuring the preservation of natural resources and their transmission to future generations.

Keywords: Marine ecosystem protection,Indonesian jurisdiction,International treaties

The Impact of Family Status on the Enforcement of Gratification Laws in Indonesia

│ Sariat Arifia[1], Caskiman[2], Bambang Arief Wibowo[3]

Universitas Al Azhar Indonesia, Universitas Al Azhar Indonesia, Universitas Al Azhar Indonesia

Abstract

Background – Gratification, as defined under Indonesian law, refers to various forms of gifts or benefits received by public officials, which can include money, goods, discounts, commissions, loans, travel tickets, lodging, tours, medical treatment, and other facilities. According to Article 12B of the Indonesian Anti-Corruption Law, any gratification related to a public official's position is considered a bribe, unless reported to the Corruption Eradication Commission (KPK) within 30 days of receipt. Despite these regulations, the enforcement of gratification laws faces significant challenges, particularly when it comes to the role of family members. The status of individuals in the family registration (Kartu Keluarga) can influence the legal accountability of public officials. This study examines five high-profile cases to understand how family status impacts the identification and legal processing of gratification

Purpose – This study aims to identify and analyse legal loopholes in handling gratification cases involving high-ranking officials' families and to provide recommendations for improving relevant regulations

Design/methodology/approach – This study employs a normative juridical approach, with literature review and case analysis. Data sources include legislation, legal journals, and relevant legal cases concerning gratification

Findings – The study reveals that family registration status significantly affects the determination of gratification. High-ranking officials and their family members who share the same family registration are more easily implicated in gratification charges compared to those whose family registration is separate. This legal gap indicates the need for regulatory improvements, including the expansion of the definition of state officials and adjustments to Article 12B of Law No. 31 of 1999

Research limitations – This study is limited to the analysis of existing cases and does not cover all gratification cases in Indonesia. Further research is required to test the effectiveness of the provided recommendations

Originality/value – This research makes a significant contribution to understanding legal loopholes related to gratification and offers recommendations to improve regulations, focusing on high-ranking officials' families. The study also emphasizes the importance of transparency and integrity in law enforcement in Indonesia

Keywords: Gratification, Corruption Offense, Law Enforcement, Family Registration, Legal Regulation

Track:
Sustainability Studies
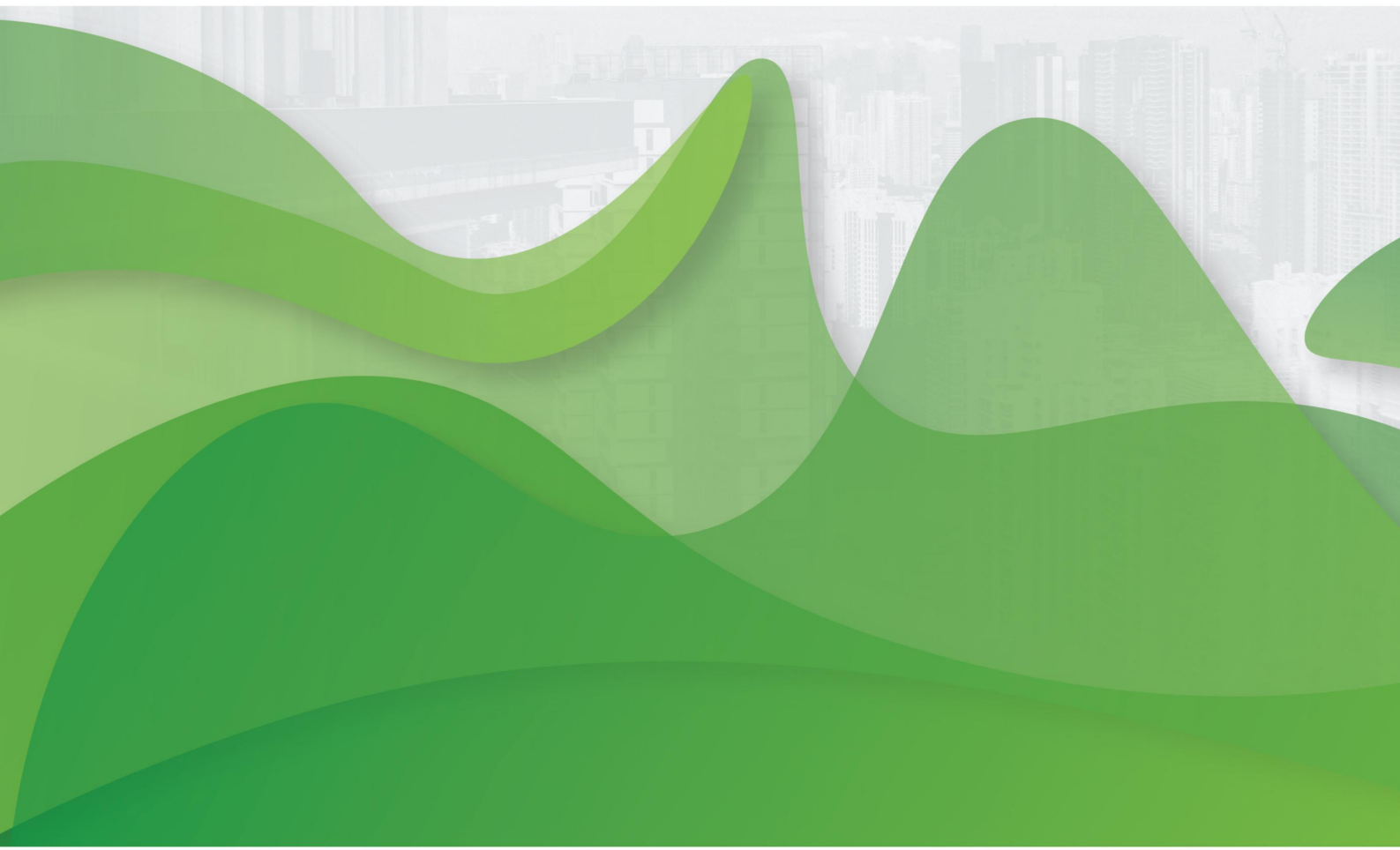
Analysis of Domestic Waste Generation in RW 03 Banyumanik Sub-districts, Banyumanik District, Semarang City

| Winardi Dwi Nugraha[1], Dhiya Ghazy Khairy[2], Siti Nur Chalisah [3], Vania Rahma Ardana[4]

Universitas Diponegoro, Universitas Diponegoro, Universitas Diponegoro, Universitas Diponegoro

Abstract

Background – Domestic waste refers to waste that comes from household activities. With a large amount of waste produced, reducing and processing household waste can have a positive impact on the environment. Sorting waste could reduce half the amount of waste that must be taken to the recycling or incineration plants or to landfill.

Purpose – This research analyzed the amount of domestic waste, volume, and composition generated in the RW 03 Banyumanik Sub-district, Banyumanik District, Semarang City.

Design/methodology/approach – This study used a quantitative descriptive approach. The data is collected by doing sampling based on SNI 19-3964-1994. In addition, to find out more about community participation or engagement in waste management, a questionnaire interview was also carried out. The questionnaire was based on the waste section of the Environmental Health Risk Assessment (EHRA) study questionnaire.

Findings – The result shows that in the RW 03 Banyumanik Sub-district, household waste generated an average weight of 0.1985 kg/person/day, with an average volume of 2.1527 liter/person/day. Based on the surveys and observations, the surrounding area was clean from waste. However, with a composition of 56.43% food waste and also 5.36% wood and leaves, only a few residents compost at home. Other composition of the waste generated consists of 14.66% plastic, 11.49% paper/cardboard, 1.46% cloth, 1.01% metal, 1.11% glass, 0.40% rubber, and 8.08% other waste.

Research limitations – The research is bounded by limited questions in the waste section of the Environmental Health Risk Assessment (EHRA) study questionnaire, so the researcher hopes that other researchers will be able to explore further.

Originality/value – This research provides the availability of literature regarding the analysis of domestic waste generation, as well as providing recommendations for waste management that can be applied to the community and the creation of sustainable waste management for the environment.

Keywords: domestic waste, waste sorting, compost

Female Director Moderating Influence Sustainable Finance and Energy Consumption to GHG Emission

| Muhammad Rafif[1], Erna Hernawati[2], Dianwicaksih Arieftiera[3], Husnah Nur Laela Ermaya[4]

UPN Veteran Jakarta, UPN Veteran Jakarta, UPN Veteran Jakarta, UPN Veteran Jakarta

Abstract

Background – This quantitative study aims to determine the influence of sustainable finance and energy consumption on GHG emissions, moderated by the presence of female directors. The population of this study comprises 46 banking companies classified under the Core Capital Bank Group (KBMI) 2 to 4, covering the period from 2019 to 2023.

Purpose – 1. Analyze and find empirical evidence regarding the significant influence of sustainable finance on GHG emissions. 2. Analyze and find empirical evidence of a significant influence of energy consumption on GHG emissions. 3. Analyze and find empirical evidence that female directors moderate the significant influence of sustainable finance on GHG emissions. 4. Analyze and find empirical evidence of a significant positive influence of female directors moderating a significant relationship between energy consumption and GHG emissions.

Design/methodology/approach – The sample selection was conducted using purposive sampling, which involves selecting samples based on predetermined criteria, resulting in a sample of 21 companies with a total of 88 observations after elimination. The hypothesis testing in this study employs multiple linear regression using STATA 17

Findings – (1) sustainable finance has a significant positive impact on GHG emissions, (2) energy consumption has a significant positive impact on GHG emissions, (3) female directors can moderate the negative influence of sustainable finance on GHG emissions, and (4) female directors cannot moderate the positive

Research limitations – a)This research only focuses on the banking sector, so the results of this research cannot be generalized to other industrial sectors in Indonesia. b) This study only processed data in a span of 3 to 5 years, namely from 2019 to 2023 due to the limitations of secondary data reported in corporate sustainability reports in Indonesia.

Originality/value – 1. Expand the current literature on the influence of sustainable finance and energy consumption on GHG emissions that previously there were still research gaps 2. using a sample of banking companies with the KBMI 3 and KBMI 4 categories which have not been explored much in previous studies because the majority of previous studies researched countries. 3. This study adds female directors as a moderating variable in the relationship between sustainable finance and energy consumption on GHG emissions

Keywords: Sustainable Finance, Energy Consumption, GHG Emission, Female Director

Track:
Management
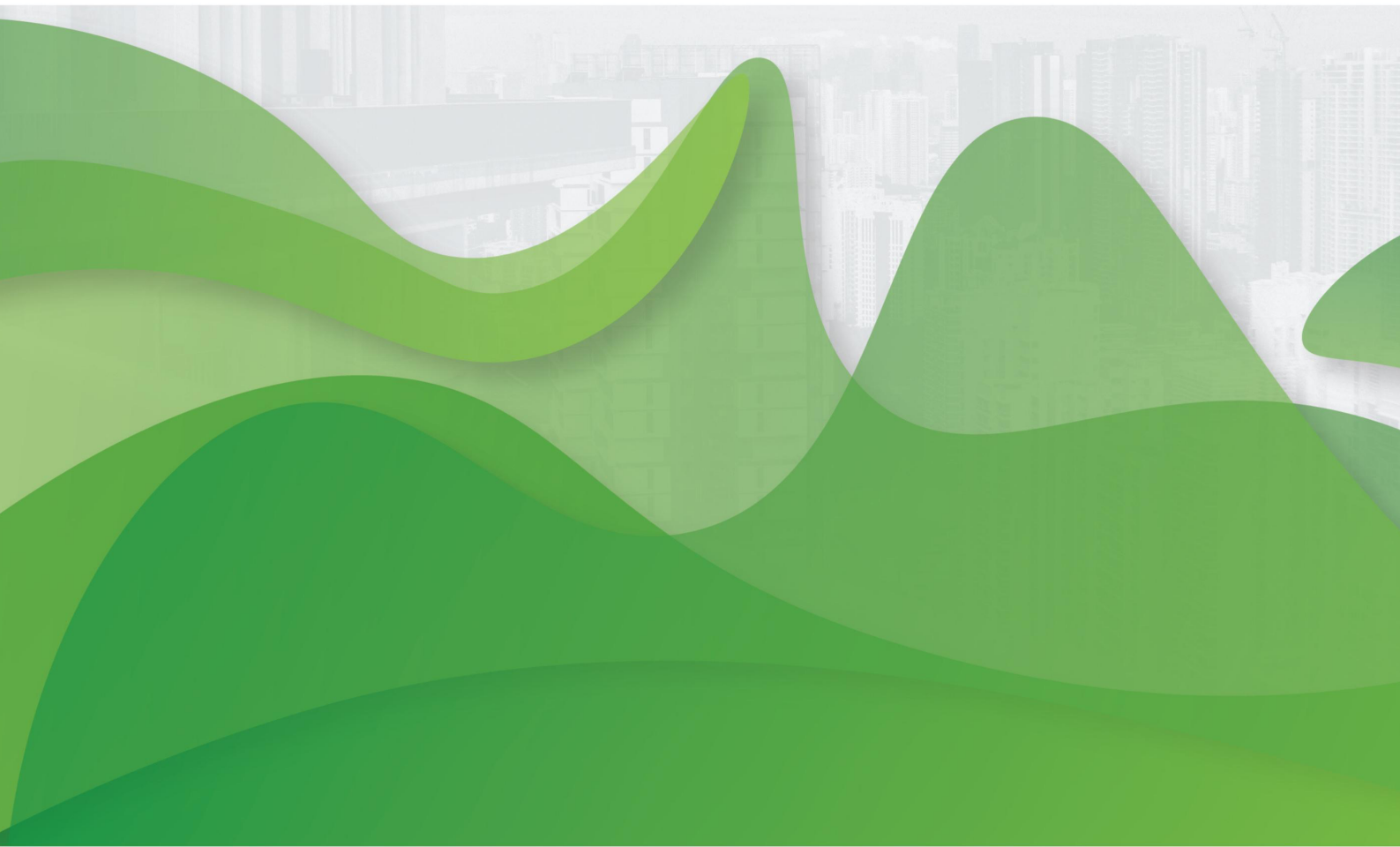
Intellectual Capital's Influence on Financial Performance: Mediating and Moderating Factors in Indonesia's Real Estate Sector

│ **Ranila Suciati**

Universitas Pembangunan Nasional Veteran Jakarta

Abstract

Background – The Property and Real Estate sector in Indonesia is key to the development of housing, office buildings, and commercial spaces. Intellectual capital (IC) significantly impacts financial performance, driving innovation and competitive advantage. It comprises human, structural, and relational capital, all contributing to long-term sustainability. While studies show varying results on IC's effect on financial outcomes, this research explores the role of capital structure as a mediating variable and company size as a moderating variable, offering a more nuanced perspective on IC's impact.

Purpose – This study aims to examine the direct and indirect effects of intellectual capital, capital structure, and company size on the financial performance of firms in Indonesia's property and real estate sector. By integrating these variables, the research provides a deeper understanding of how they interact to influence company performance in this rapidly growing sector.

Design/methodology/approach – Using path analysis with panel data from 30 companies over six years (2016–2021), this study investigates complex relationships between IC, capital structure, company size, and financial performance. Path analysis, applied through Eviews12 software, allows for a detailed exploration of both direct and indirect effects, offering a comprehensive understanding of causal relationships in the sector.

Findings – The study finds that IC positively impacts financial performance, with higher IC correlating with better profitability and efficiency. Capital structure negatively affects financial performance, highlighting the need for careful debt management. Company size moderates the relationship between IC and performance, with larger companies better positioned to leverage IC for competitive advantage.

Research limitations – The study is limited to the Indonesian property and real estate sector, limiting its generalizability. Further research is needed to examine the effects of IC and capital structure across different industries and regions.

Originality/value – This research contributes by integrating IC with capital structure and company size to offer a more comprehensive understanding of their combined effects on financial performance in Indonesia's property sector. It provides actionable insights for companies, investors, and policymakers, emphasizing the importance of managing IC and optimizing capital structure for better financial outcomes.

Keywords: Intellectual Capital, Financial Performance, Capital Structure, Firm Size, Property and Real Estate Sector.
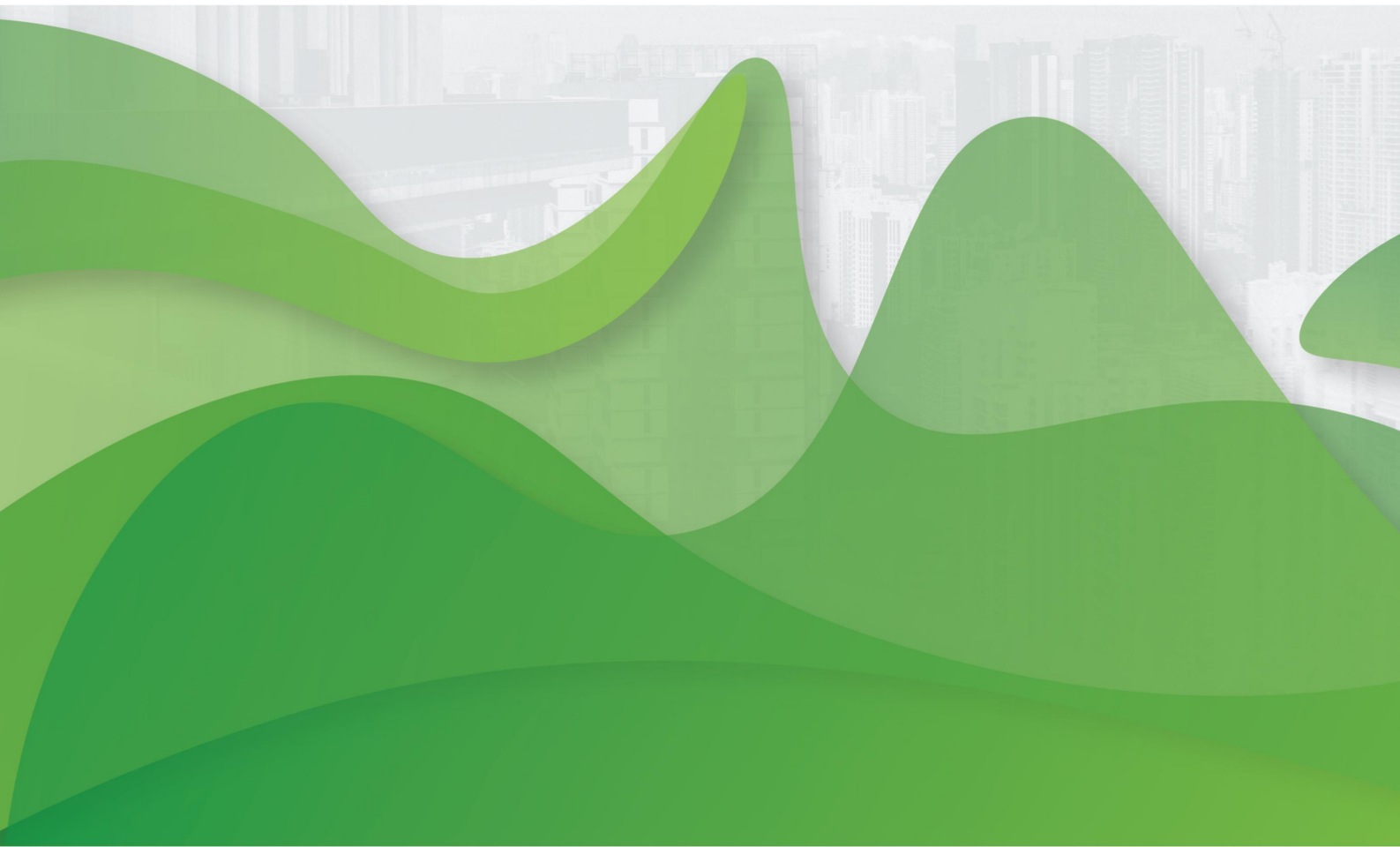
Track:
Business

Examining the Impact of Digital Platforms on Scaling Small and Medium Enterprises in Timor-Leste for Sustainable Growth

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Universidade Nacional Timor-Lorosa'e

Abstract

Background – This study examines the impact of digital platforms on the growth and scalability of Small and Medium Enterprises (SMEs) in Timor-Leste, with a focus on fostering sustainable development. Although Timor-Leste (TL) is a post-conflict country with relatively underdeveloped infrastructure, SMEs play a critical role in the nation's economy. This research explores how digital platforms—such as e-commerce, social media, and digital payment systems—can support market expansion and sustainable growth. The study investigates how the adoption of digital technologies enables SMEs to expand their market reach, increase profitability, improve efficiency, and contribute to sustainable economic development.

Purpose – This research highlights the transformative potential of digital platforms for SME sustainability and resilience, identifying key obstacles faced by SMEs in Timor-Leste when adopting digital tools, and contributes to broader economic development efforts in the country.

Design/methodology/approach – Through surveys and case studies, the research identified both the opportunities digital platforms offer and the challenges SMEs face in leveraging them, such as limited digital literacy, bureaucratic complexities, and infrastructure gaps.

Findings – The findings provide valuable insights for SME owners, policymakers, digital service providers, and other stakeholders on strengthening the digital ecosystem to support SME growth.

Research limitations – This study has the following limitations: 1. The target population and sample are specifically limited to local entrepreneurs. 2. The study employs a mixed-method approach, combining quantitative and qualitative methods through descriptive analysis, regression analysis, comparative analysis (using T-tests or ANOVA), SWOT analysis, factor analysis, and path analysis (Structural Equation Modeling—SEM).

Originality/value – There is a limited amount of research on the role of digital platforms in improving the performance of SMEs in Timor-Leste. This study provides valuable insights into the role of digitalization and e-commerce in enhancing the performance of SMEs in Timor-Leste, offering alternatives for how these platforms can be better leveraged for business growth.

Keywords: Digital Platforms, Small and Medium Enterprises (SMEs), Scaling, Sustainable Growth, E-Commerce

CLOSING SPEECH

Excellencies, Presenter, Attendees

Ladies and Gentlemen,

As we come to the conclusion of the Jakarta International Conference on Research Innovation and Sustainable Development (JICRISD) 2024, I want to express my deepest gratitude to each of you for making this event a remarkable success. Over the course of this conference, we have had the privilege of engaging in thought-provoking discussions, sharing innovative ideas, and fostering meaningful collaborations.

This year's theme, "The Rise of Natural Resources Industrial Policy, Political Ecology, and Sustainable Development in ASEAN," has provided us with a vital platform to explore pressing challenges and envision sustainable solutions. The insights and expertise shared here by scholars, researchers, and practitioners have been invaluable in shaping strategies to address the complexities of climate change, natural disasters, and sustainable development in our interconnected world.

To our session chairs, reviewers, conference committee members, presenters, and attendees, your dedication, enthusiasm, and active participation have been the driving force behind the success of this gathering. Whether you joined us in person or virtually, your contributions have enriched this conference and inspired new pathways for progress.

As we conclude, I encourage you to carry the knowledge and connections from JICRISD 2024 into your future work. May the collaborations and ideas born here continue to flourish and create lasting impacts on sustainable development.

Thank you once again for your commitment and engagement. I wish you safe travels and continued success in all your endeavors.

Best regards,

Dr. Dianwicaksih Arieftiara, S.E., Ak., M.Ak., CA., CSRS.
Universitas Pembangunan Nasional Veteran Jakarta

Future Events
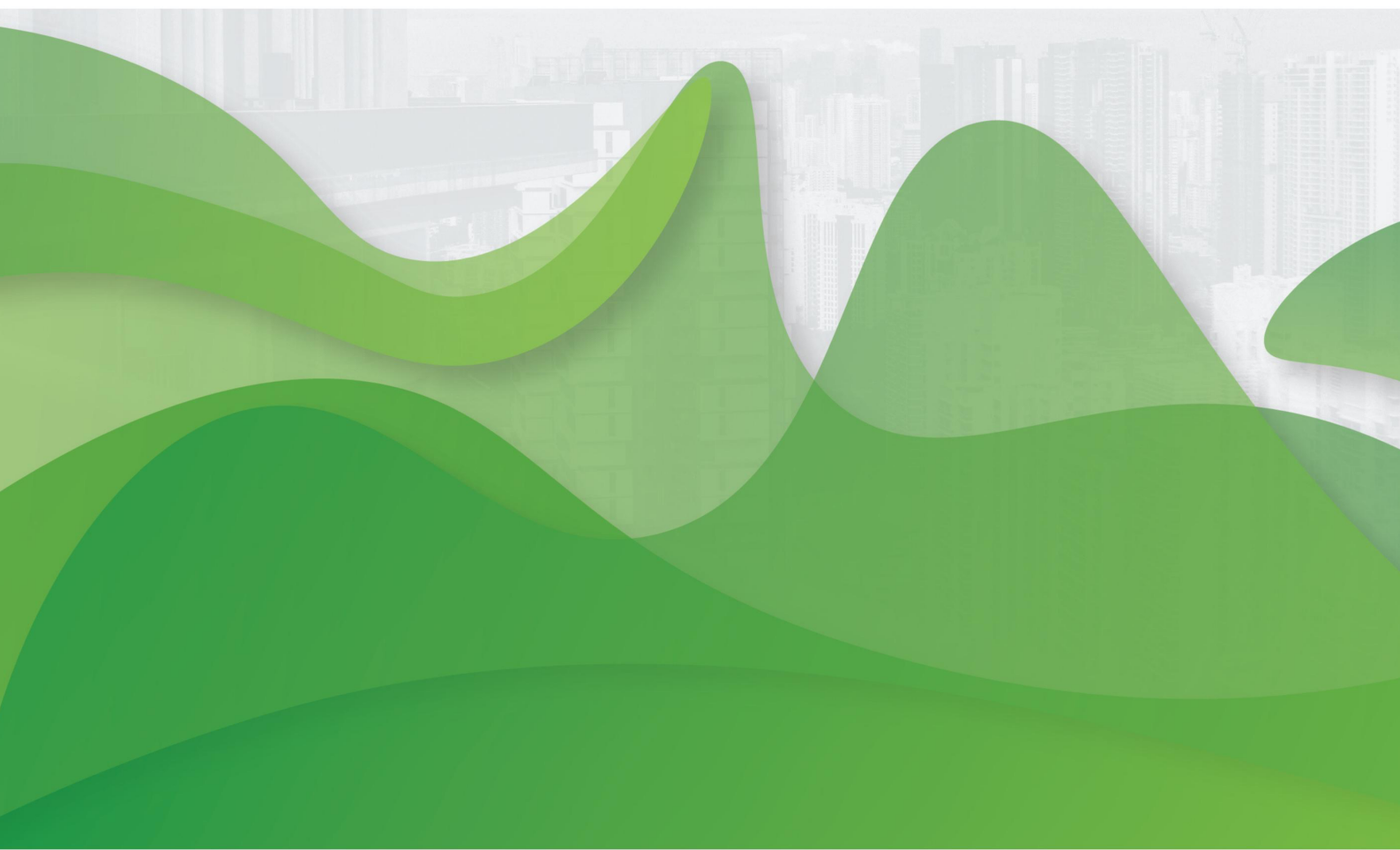
5th MESS

The 5th International Conference on Management, Education, and Social Science
https://messconference.com
Virtual conference - December 10, 2024

IHSATEC

The International Halal Science and Technology Conference 2024: 17th Halal Science Industry and Business (HASIB)
https://www.ihsatec.com
Hybrid conference (Bangkok, Thailand) - December 19 - 20, 2024

10th RESBUS

10th International Conference on Interdisciplinary Research on Education, Economic Studies, Business and Social Science (10th RESBUS)
https://www.ihsatec.com
Virtual Conference – February 18, 2025

9th ESBEM

9th International Conference on Entrepreneurship Studies, Business, Economy, and Management Science (9th ESBEM)
https://esbem.com
Virtual Conference – March 11, 2025

11th BEMSS

11th International Conference on Business, Economy, Management and Social Studies Towards Sustainable Economy (11th BEMSS)
https://www.bemssconference.com
Virtual Conference – April 22, 2025

9th IBEMS

The 9th International Conference on Interdisciplinary Business, Economy, Management, and Social Studies (9th IBEMS)
https://www.ibemsconference.com
Hybrid conference (Perth, Australia) – July 8-9, 2025

10th MASOS

10th International Conference on Management Studies and Social Science (10th MASOS)
https://www.masosconference.com
Virtual Conference – August 12, 2025

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