JOURNAL INDUSTRIAL SERVICESS

vol. 10, no. 1, April 2024

Published by:
Department of Industrial Engineering
Faculty of Engineering, Universitas Sultan Ageng Tirtayasa
Cilegon, Indonesia

JISS	vol.	no.	Page:	April, 2024	ISSN (Print) : 24610631
	10	1	1–138		ISSN (Online): 24610623

Journal Industrial Servicess

Editors and Reviewers

I. Editorial Team

Editor-in-chief

Bobby Kurniawan, Teknik Industri Universitas Sultan Ageng Tirtayasa

Associate Editors

Andreas Tri Panudju, Bhayangkara Jakarta Raya University, Indonesia Noni Oktiana Setiowati, Institut Teknologi Kalimantan, Indonesia Anik Nur Habyba, Universitas Trisakti, Indonesia Akbar Gunawan, Universitas Sultan Ageng Tirtayasa, Indonesia Indra Setiawan, ASTRA Polytechnic, Indonesia

Area Editor: Smart Manufacturing System and IOT

Dwinanto Dwinanto, Universitas Sultan AgengTirtayasa, Indonesia

Area Editor: Supply Chain Management

Wahyudi Sutopo, Universitas Negeri Sebelas Maret, Surakarta, Indonesia Ivonne Ayesha, Universitas Muhammadiyah Bandung, Indonesia Rizki Prakasa Hasibuan, Universitas Putera Batam, Indonesia

Area Editor: Mathematical Modeling

Hennie Husniah, Universitas Langlang Buana, Indonesia

Area Editor: Ergonomic, Occupational Health and Safety Environment Lovely Lady, Universitas Sultan Ageng Tirtayasa, Indonesia

Area Editor: Manufacturing Process

Mekro Permana Pinem, Universitas Sultan Ageng Tirtayasa, Indonesia

Area Editor: Industrial Management

M. Mujiya Ulkhaq, Diponegoro University, Indonesia Noveri Maulana, Sekolah Tinggi Manajemen PPM-Jakarta, Indonesia

Area Editor: Production Control and Scheduling

B. Handoko Purwojatmiko, Politeknik STMI Jakarta, Indonesia

Arrazy Elba Ridha, S.ST., M.T., Universitas Teuku Umar, Indonesia

II. Reviewers

B. Dhanasakkaravarthi, Agni College of Technology, India

Wen Song, Waseda University, Japan

Fellek Getu Tadesse, School of Mechanical and industrial Engineering, Ethiopian Institute of Technology-Mekelle, Ethiopia, Ethiopia

Antragama Ewa Abbas, Delft University of Technology, Netherlands

Muhammad Hisjam, Universitas Negeri Sebelas Maret, Surakarta, Indonesia

Dwi Kurniawan, Institut Teknologi Nasional, Indonesia

Aisyah Larasati, Universitas Negeri Malang, Indonesia

Bimastyaji Surya Ramadan, Universitas Diponegoro, Indonesia

Fandi Achmad, Telkom University, Indonesia

Agus Nurofik, STIA Adabiah Padang, Indonesia

Fuad Dwi Hanggara, Universitas Islam Negeri Maulana Malik Ibrahim, Indonesia

Angra Meta Ruswana, Universitas Galuh

Muhammad Hasan, Universitas Negeri Makassar, Indonesia

Reza Fahlevi Lubis, Universitas Nasional, Indonesia

Nidya Wisudawati, Universitas Muhamaddiyah Palembang, Indonesia

Rurry Patradhiani, Universitas Muhammadiyah Palembang, Indonesia

Rafiqa Fijra, Universitas Muhammadiyah Palembang, Indonesia

Fatturroyhan Fatturroyhan, Universitas Darussalam Gontor, Indonesia

Sulfikar Sallu, Universitas Sembilan Belas November, Indonesia

Ika Rezvani Aprita, Politeknik Indonesia Venezuela, Indonesia

Adhi Putra Satria, Indonesia

Rosa Nikmatul Fajri, Universitas Alma Ata, Indonesia

Agus Ismail, Universitas Mercu Buana, Indonesia

Tania Avianda Gusman, Universitas Muhammadiyah Cirebon, Indonesia

Dutho Suh Utomo, Universitas Mulawarman, Indonesia

Surya Cipta Ramadhan Kete, Halu Oleo University, Indonesia

Iing Pamungkas, Universitas Teuku Umar, Indonesia

Erni Krisnaningsih, Universitas Esa Unggul, Indonesia

Mohammad Mi'radj Isnaini, Institut Teknologi Bandung, Indonesia

Agung Sudrajad Universitas Sultan Ageng Tirtayasa, Indonesia

Tifa Noer Amelia, Perbanas Institute, Indonesia

Andrian Haro, Universitas Negeri Jakarta, Indonesia

Rosita Kusumawati, Universitas Negeri Yogyakarta, Indonesia

Riski Arifin, Universitas Syiah Kuala

Gama Harta Nugraha Nur Rahayu, Universitas Pancasila, Indonesia Saiful Hendra, Universitas Mercubuana, Indonesia Dina Rachmawaty, Institut Teknologi Telkom Purwokerto, Indonesia Irvan Setiadi Kartawiria, Swiss German University, Indonesia Nabila Nabila Noor Qisthani, Institut Teknologi Telkom Purwokerto, Indonesia Anastasia Febiyani, Institut Teknologi Telkom Purwokerto, Indonesia

Journal Industrial Servicess

Table of Content vol. 10, no. 1, April 2024

Editors and Reviewers	ii
Table of content	v
Editorial preface	iv
Assessment of postural risks in adolescents aged 12-19 during smartphone use Fikrihadi Kurnia, Anak Agung Alit Triadi, I Made Suartika, Made Wijana, Maharsa Pradityatama	1-6
Bibliometric analysis of lean and green healthcare integration using Publish or Perish (PoP) Evi Febianti, M. Adha Ilhami, Ratna Ekawati, Hadi Setiawan	7-12
Workload measurement with Bourdon Wiersma and Cardiovascular Load (CVL) methods Ade Sri Mariawati, Shanti Kirana Anggraeni, Maura Citra Nisfulail, Nustin Merdiana Dewantari, Lely Herlina, Ani Umyati	13-18
Revving up customer satisfaction: Important Performance Analysis and Customer Satisfaction Index methods in auto repair service evaluation Agus Nurrokhman, Aod Abdul Jawad	19-24
Business model canvas of auto detailing and car wash home service Ratna Ekawati, Ardenta Toga Prawira, Arif Saptiyadi, Ayuningtyas Woro Hapsari, Galih Prihasetya, Marco Sayputra	25-38
Optimizing construction project completion: A risk-based approach Nurul Ummi, Hadi Setiawan, Putiri Bhuana Katili, Virda Ayu Rahmawati	39-48
Strategic advancements in tourism development in Indonesia: Assessing the impact of facilities and services using the PLS-SEM approach Fandi Achmad, Iwan Inrawan Wiratmadja	49-62
Optimizing worker safety: A case study on lifting load and body posture in rice warehouse operations Nustin Merdiana Dewantari, Creavilian Taqdisillah, Reefly Yoshea Mangaranap, Ade Sri Mariawati, Lely Herlina	63-68
Boosting productivity through lean manufacturing efficiency in furniture Small and Medium Enterprises (SMEs) Evi Febianti, Yusraini Muharni, Desi Ramdhani, Shanti Kirana Anggraeni	69-76
Mitigating business risks in the culinary supply chain: An empirical study in Bangkalan District Syah Firda Lula Hemada, Mardiyah Hayati	77-84
Building a resilient supply chain: Mitigating risks in label-holder production Maria Ulfah, Achmad Bahauddin, Ratna Ekawati, Atia Sonda, Yusraini Muharni, Aditya Rahadian Fachrur	85-90
Application of the Nawaz-Enscore-Ham (NEH) algorithm for flow shop scheduling in a timber factory Yusraini Muharni, Ade Irman Saeful Muttaqien, Hilal Lazuardi, Lely Herlina, Evi Febianti, Muhammad Adha Ilhami, Maria Ulfah, Hartono Hartono	91-96
Mitigating organizational risks in the Secretariat of the Finance Education and Training Agency: A House of Risk methodology	97-108

Shanti Kirana Anggraeni, Nuraida Wahyuni, Iim Imroatu Soleha, Putiri Bhuana Katili, Maria Ulfah

Analysis of ceramic product quality: A Six Sigma approach Asep Ridwan, Atia Sonda, Athariq Zilardhi	109-116
Improving the quality of mobile banking services using the integration of text mining, mobile banking service quality, and Quality Function Deployment Achmad Bahauddin, Maria Ulfah, Nurul Fadillah Boru Angin, Aditya Rahadian Fachrur	117-124
Preventing musculoskeletal disorders due to manual material handling in the production process of clean water Lovely Lady, Sekar Fani Nuraeni	125-132
Design of a monitoring and protection system for lithium ion (Li-Ion) batteries on solar panels Hartono Hartono, Samsul Hidayatulloh, Yusraini Muharni	133-138
Index of authors	vii

Editorial Preface

We are delighted to present this edition of *Journal of Industrial Services (JISS)*, Volume 10, Number 1, which features a diverse collection of 17 articles addressing critical issues in industrial engineering, management, and technology. This issue brings together researchers from six universities in Indonesia, showcasing innovative approaches and empirical studies that contribute to advancing knowledge and practice in their respective fields.

The editorial board expresses its deep gratitude to the authors who have submitted their articles to *Journal of Industrial Services (JISS)* for this issue. It is an honor for us to have earned the trust of various authors. Additionally, we would like to extend our thanks to the editorial board members and reviewers who have contributed to this edition. Notably, we have increased the number of international reviewers, including Dr. Wen Song, Fellek Getu Tadesse, and Dr. B. Dhanasakkaravarthi, to enhance the quality of the submitted articles.

This marks the second edition since *JISS* achieved Sinta 2 accreditation by Dikti. The editorial board is committed to continuously improving the quality of *JISS* and is actively working to elevate its rating. As part of our efforts, we are in the process of pursuing further enhancements to meet international standards.

The articles in this edition cover a wide range of topics. Several studies focus on health and safety, such as the assessment of postural risks among adolescents during smartphone use by Kurnia et al., workload measurement using the Bourdon Wiersma and Cardiovascular Load methods by Mariawati et al., and the prevention of musculoskeletal disorders in manual material handling by Lady and Nuraeni. Worker safety is further explored in a case study on lifting loads and body posture in rice warehouse operations by Dewantari et al.

Other contributions emphasize operational efficiency and risk management. Febianti et al. examine lean manufacturing to boost productivity in furniture SMEs, while Hemada and Hayati investigate risk mitigation in the culinary supply chain in Bangkalan District. Ulfah et al. address supply chain resilience in label-holder production, and Anggraeni et al. apply the House of Risk methodology to mitigate organizational risks in the Secretariat of the Finance Education and Training Agency. Additionally, Ummi et al. propose a risk-based approach to optimize construction project completion. Several articles focus on service quality and customer satisfaction. Nurrokhman and Jawad evaluate auto repair services using Importance Performance Analysis and Customer Satisfaction Index methods, while Bahauddin et al. enhance mobile banking service quality through text mining and Quality Function Deployment integration. Ridwan et al. apply a Six Sigma approach to improve ceramic product quality, and Achmad and Wiratmadja assess the impact of facilities and services on tourism development in Indonesia using PLS-SEM.

Innovation in business models and technology is also highlighted. Ekawati et al. develop a business model canvas for auto detailing and car wash home services, and Hartono et al. design a monitoring system for lithium-ion batteries in solar panels. Scheduling efficiency is addressed by Muharni et al. through the application of the Nawaz-Enscore-Ham algorithm in a timber factory. Lastly, Febianti et al. provide a bibliometric analysis of lean and green healthcare integration using Publish or Perish.

The next edition of *JISS* will be published in October 2024. We welcome constructive criticism and suggestions to further enhance the quality of *JISS*. We extend our gratitude to all authors for their valuable contributions and to our reviewers for their rigorous evaluations. We hope this edition inspires further research and practical advancements in industrial services.

Sincerely,

Editorial Office