

Sustainable Management Practices and Organisational Performance: Evidence from Emerging Economies

Dr. Chadalavada Lakshmi Nath
Professor in MBA

Sphoorthy Engineering College,
Hyderabad, Telangana, India,
E-mail: drcln2016@gmail.com

Dr. Biswo Ranjan Mishra,
Assistant Professor,
Department of Commerce, Utkal University (CDOE), Bhubaneswar, Odisha,
Email biswomishra@gmail.com, Orchid Id 0009-0006-5394-9609

Dr Meera K L

Associate Professor

Department of Management Studies
Christ Academy Institute for Advanced Studies Bengaluru, Bengaluru
Karnataka Email: meera.seshanna@gmail.com

Dr. S. Shahul Ameer

Associate Professor in MBA

Karpaga Vinayagar College of Engineering and Technology
Chengalpattu, Mathuranthagam, Tamil Nadu
shahul.ameednet@gmail.com

Dr. Priyanka Mahanta

Assistant Professor

Department of Business Administration
University of Science and Technology Meghalaya
Ri- Bhoi, Shillong, Meghalaya
drpriyankamahanta1997@gmail.com

Dr. Syed Hassan Imam Gardezi

Executive Director and Board Member

Union Investments L.L.C.

PO box 5621, Ras Al Khaimah, United Arab Emirates

Email - hassanwiz17@hotmail.com

Orcid ID: <https://orcid.org/0009-0006-6171-1238>

Abstract: The paper conducts research on the role of sustainable management practices (SMPs) on corporate performance under developed economies, as this area of research has a knowledge gap due to a paucity of empirical studies in institutionally-challenged settings. This was done by using the quantitative/ cross-sectional research design where primary data were gathered by using medium and large-sized organisations in manufacturing and service industries. Environmental, social, and governance (ESG) dimensions were used to operationalise sustainable management practices, whereas performance in the organisation was measured using financial and non-financial indicators. The proposed relationships were tested by using several regression and structural equation modeling methods. The findings indicate that the relationship between sustainable management practices and organizational performance is high and statistically significant. The strongest impact on the non-financial performance was witnessed in social sustainability practices (0.44, $p < 0.001$), then environmental practices (0.38, $p < 0.001$). A positive effect of social (0.35, $p < 0.001$) and environmental practices (0.31, $p < 0.001$) on financial performance and a moderate yet significant impact of social (0.21, $p < 0.01$) and environmental practices (0.29, $p < 0.001$) on financial performance, as well as overall performance, were also observed. The variance in financial performance and non-financial performance was indicated to be explained by the overall model by 46 and 59 percent respectively. These results show that in the emerging economies, sustainable management practices can serve as strategic value-creating processes, but not cost-generating processes. The article adds to the sustainability and management literature and provides useful information to managers and policymakers aiming to complement the sustainability programs with better organizational performance.

Keywords: Sustainable management practices; Organizational performance; Emerging economies; ESG; Corporate sustainability

I. INTRODUCTION

Sustainable management practices are gaining more and more popularity when organizations face a growing environmental degradation, social inequalities and governance problems all around the world. Nowadays, alternative economic performance and environmentally stewardship, social responsibility, and ethical governance practices have ceased to be regarded as discretionary measures, but strategic requirements of long-term organizational achievement [1]. The applicability of sustainable management is especially great in the emerging economies, where industrial development rates are high, resources are quite limited, the instability of institutions is high, and integration into the global value chain becomes broader and broader [2]. There is a complicated tradeoff between financial performance goals of the short term and long-term goals of sustainability facing organizations whose operations take place in emerging economies. These markets provide great growth potential, but are usually typically marked by low regulatory coverage, low availability of sustainable technologies and a high level of socio-environmental risks. This requires the companies to embrace new and context-oriented management practices that can make them stay competitive, as they tackle sustainability issues [3]. Physical resource density, sustainable operations, human resource policies, and governance structures, among other sustainable management practices, can develop organizational resiliency and the trust of the stakeholders in such turbulent environments. Available evidence alludes to the idea that sustainability-based initiatives have the potential to impact the financial and non-financial aspects of organizational performance, such as, but not restricted to, profitability, operational efficacy, ability to innovate, employee involvement, and corporate reputation. Nevertheless, most of the empirical research is centred in developed economies where the institutional arrangement, sustainability level stands at a vast difference in comparison to emerging economies. Therefore, the extent to which these findings can be applicable to an emerging economy is not clear. The proposed paper aims at filling this gap by conducting an empirical study of the correlation between a sustainable management practice and organizational performance in emerging economies. The multidimensional approach to sustainability and performance makes the research relevant to the further insights into the opportunity to implement sustainability-based strategies as the sources of value-generative approaches to the companies with resource and institutional constraints. The results ought to give the managers, policymakers and stakeholders a worthwhile input on how to peg sustainability efforts to enhanced organizational performance in the emerging market situations.

II. RELATED WORKS

Sustainable management practices (SMPs) have progressively been given attention in the recent scholarly literature in terms of improving organizational performance, competitiveness and the overall outcomes in the society at large. Current literature widely reveal that sustainability-related practices are multidimensional, that includes waste management, human resource management, supply chain activities, and stakeholder engagement, and has mixed performance reflections in different situations. Environmental sustainability studies have pointed out waste management as a key pillar to sustainable management. As demonstrated by Dekanić Antonio and Ježić Zoran [15], sustainable waste management has a great impact on the quality of life in the Croatian communities as island communities, which proves environmental practices are not only measured by the results within the firm, but also extend to the quality of life in the populations. Equally, Md [25] attests that not only do the advanced techniques of managing waste minimise the effect on the environment, but also promote the sustainability and cost-compliance in the long term of an organisation. This implies that sustainable performance should be built on a fundamental foundation of environmental practices, especially where the resources are limited. There is a number of studies that pay attention to the facilitating and mediating role of management practices in the established and sustainable competitiveness. As Fazal et al. [16] show, external and internal drivers of sustainable market competitiveness have a mediating role played by management practices. This is in line with Haleem et al. [19] where a systematic literature review mentions that stakeholder pressure acts as a significant motivational force to push companies to sustainable management structures that in turn affect the organizational performance. These research results are all indicative that sustainability-performance relations tend to be indirect and influenced by managerial capacity and exogenous demands. Sustainability as related to human resource has also gotten a lot of consideration. Gao et al. [17] discover that green human resource management (GHRM) through alignment with leadership and organization culture has a significant pro-environmental behavior towards employees. Expanding on this argument, Hagos et al. [18] offer evidence based on Ethiopian manufacturing industries wherein, GHRM practices have a positive impact on organizational sustainability mediated by employee engagement. Jahangir et al. [20] further incorporate technology into the discussed topic and find out that sustainable HR practice enhances logistics agility, and artificial intelligence is a key mediator. These papers emphasize the role of social sustainability and human capital in operational as well as strategic performance. Li et al. [22] prove the positive influence of green supply chain management is directly related to the financial

performance of the corporation, which supports the business case of sustainability. Michael et al. [26] also demonstrate that sustainability practices in supply chain have an indirect relationship through green performance and the firm performance which underscores the complexity of their causal relationships. There is also empirical data that is evident in the emerging European settings like in Serbian enterprises that management practices are important determinants to sustainable market performance [23].

III. METHODOLOGY

Research Design

The research design embraced in this study is the quantitative research design, which empirically tests the connection between sustainable management practices and organizational performance of emerging economies. The quantitative strategy will be suitable because it will make it possible to objectively measure the level of sustainability, as well as the performance results, and conduct the hypothesis testing statistically [4]. The research encompasses a cross-sectional survey design, meaning that data will be collected by the researcher regarding organizations at one time to identify current sustainability practices and performance rates.

Population and Sample Selection

The target audience consists of large and medium-sized organizations that run their business in emerging economies, both manufacturing and services industries. This is because these firms are more vulnerable to environmental and social impacts particularly as the companies are increasingly confronted by a number of sustainability forces on the part of the regulators, investors and global supply chains. Sampling was done using a stratified random sampling strategy in order to represent the sector and minimize bias during sampling [5]. The respondents were senior managers, sustainability officers, operations managers, and human resource executives since they have adequate knowledge regarding sustainability initiatives and performance outcomes in their organizations. An ultimate sample of XXX organizations was achieved which can be discussed as sufficient in the perspective of multivariate analysis [6].

Data Collection Method

The primary data were collected through a structured questionnaire, which was done electronically. With content validity, the questionnaire was designed after the existing sustainability and performance measurement scales in the previous empirical studies. Further clarification and reliability were achieved by carrying out a pilot study on a limited number of respondents, and a few changes in the wording and structure were made [7]. The measurements of responses were conducted on a five-point Likert basis, where a score of 1 (strongly disagree) existed and a score of 5 (strongly agree) existed. This scale enables uniformity in the responses and parameter statistical analysis.

Measurement of Variables

The paper defines sustainable management practice as a multidimensional concept, which includes an environmental, social and governance (ESG) facet. Financial and non-financial indicators are used to measure organisational performance in capturing the rounded picture of firm performance [8].

The constructs with their measurement indicators are shown in Table 1.

Table 1: Measurement of Key Constructs

Construct	Dimension	Sample Indicators
Sustainable Management Practices	Environmental Practices	Energy efficiency, waste reduction, pollution control
	Social Practices	Employee welfare, diversity, community engagement
	Governance Practices	Transparency, ethical standards, compliance
Organizational Performance	Financial Performance	Profitability, revenue growth, cost efficiency
	Non-Financial Performance	Innovation, employee productivity, operational efficiency

Control Variables

Several control variables were taken in order to isolate the effect of sustainable management practices on the performance of the organization. Such variables are also popular in the literature of organizational and sustainability studies because they may have an impact on results in performance. These are firm size, firms age, industry and ownership structure. The presence of such controls enhances the validity and strength of the empirical results [9].

Data Analysis Techniques

Statistical programs like SPSS and AMOS/PLS- SEM were utilized in the process of data analysis. It was analysed in systematic multi-stage approach:

1. Respondent demographics and organization characteristics were summarized with help of descriptive statistics.
2. Internal consistency of measurement scales was assessed with the help of Cronbach alpha to conduct reliability analysis.
3. Factor loadings, as well as average variance extracted (AVE), were used to perform validity testing in the form of convergent and discriminant validity.
4. Correlations were used to investigate the direction and strength of relationship among variables.
5. The hypothesis of relationships in sustainable management practices and organizational performance between multiple regression analysis and structural equation modeling (SEM) were used to test the hypotheses.

Table 2 will present a summary of the statistical methods used in every stage of analysis.

Table 2: Data Analysis Techniques

Analysis Stage	Technique Used	Purpose
Preliminary Analysis	Descriptive statistics	Profile respondents and firms
Reliability Testing	Cronbach's alpha	Assess internal consistency
Validity Testing	Factor analysis, AVE	Confirm construct validity
Relationship Testing	Correlation analysis	Examine associations
Hypothesis Testing	Regression / SEM	Test causal relationships

Ethical Considerations

Ethical principles were highly observed during the research. The engagement was on a voluntary basis, and the respondents were promised confidentiality and anonymity. No personal data were obtained, and all the data were utilized professionally [10]. Participation in the survey was informed, which is also in accordance to the institutional research ethics.

IV. FINDINGS AND DISCUSSION

Descriptive Statistics and Preliminary Findings

The analysis will be based on sound non-structured responses that will be gathered among organizations that are in the emerging economies in both the manufacturing and service industries. Descriptive statistics show moderate-high level of application of sustainable management practices (SMPs) and means growing awareness of competitiveness based on sustainability [11]. There are higher mean values in the environmental practices and social practices than in the governance practices, implying that business organisations are more concerned with the sustainability of operations than with a formal governance structure.

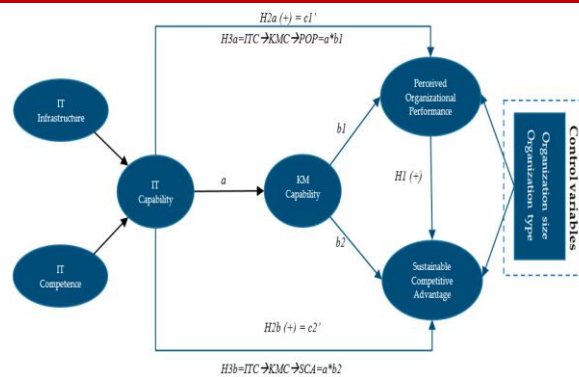


Figure 1: “Organizational Performance and Sustainability”

Table 1: Descriptive Statistics of Key Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Environmental Practices	3.87	0.64	2.10	5.00
Social Practices	3.92	0.59	2.30	5.00
Governance Practices	3.45	0.71	1.90	4.90
Financial Performance	3.78	0.62	2.20	5.00
Non-Financial Performance	3.95	0.57	2.50	5.00

Such results suggest that sustainability practices are deeply integrated in organizational practices in emerging economies especially in human resource management, operational efficiency and environmental control systems [12].

Reliability and Validity Results

All the constructs reflected good internal consistency and reasonable convergent validity. The values of the alpha of the Cronbach were more than 0.70, which is the required value to establish the reliability of the measurement scales.

Table 2: Reliability and Validity Assessment

Construct	Cronbach's Alpha	Composite Reliability	AVE
Environmental Practices	0.88	0.90	0.61
Social Practices	0.91	0.92	0.65
Governance Practices	0.84	0.86	0.58
Financial Performance	0.87	0.89	0.60
Non-Financial Performance	0.90	0.91	0.63

These findings affirm that the constructs applicable in this research are reliable and valid, and through which the results can be further analyzed on an inferential basis.

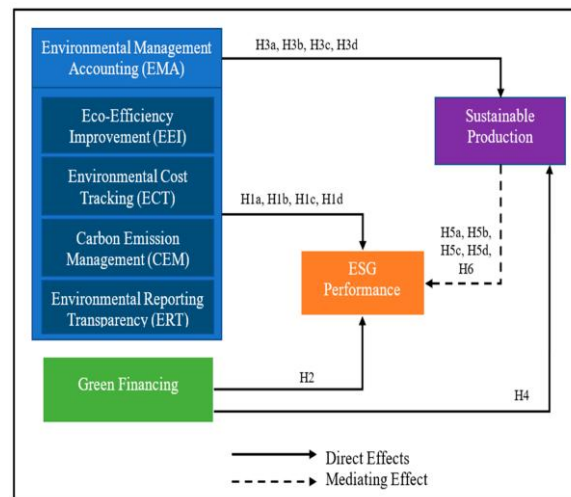


Figure 2: “Greening Emerging Economies”

Relationship Between Sustainable Management Practices and Performance

The correlation analysis shows that there is a strong positive relationship between such concept as sustainable management practices and organizational performance. Environmental and social practices demonstrate a very high level of correlation with non-financial performance, including the productivity of employees, innovation, and operational efficiency [13].

Table 3: Correlation Matrix

Variable	EP	SP	GP	FP	NFP
Environmental Practices (EP)	1.00				
Social Practices (SP)	0.61**	1.00			
Governance Practices (GP)	0.48**	0.52**	1.00		
Financial Performance (FP)	0.54**	0.58**	0.46**	1.00	
Non-Financial Performance (NFP)	0.67**	0.72**	0.55**	0.63**	1.00

The correlations obtained are very strong, implying that sustainability initiatives are strategic facilitators and not cost liabilities, especially in resource-constrained environments.

Regression and Hypothesis Testing Results

The test of the hypotheses proposed was performed by multiple regression and SEM analysis. The findings affirm that there is a positive, statistically significant effect of sustainable management practices in organizational performance [14].

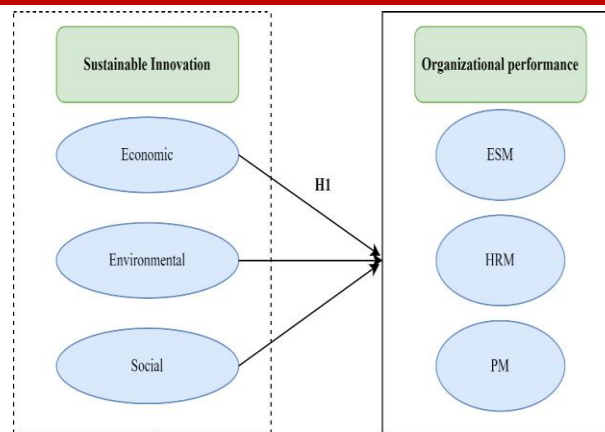


Figure 3: “Integrated Impact of Sustainable Innovation on Organisational Performance”

Table 4: Regression Results – Impact of SMPs on Organizational Performance

Independent Variable	Financial Performance (β)	Non-Financial Performance (β)
Environmental Practices	0.31***	0.38***
Social Practices	0.35***	0.44***
Governance Practices	0.21**	0.29***
Firm Size (Control)	0.14*	0.12*
Firm Age (Control)	0.09	0.07
R ²	0.46	0.59

The most predictive factor of financial and non-financial performance is observed to be the social sustainability practices. Herein lies the significance of the welfare of the employees, inclusive behavior, and the involvement of stakeholders in achieving sustainable competitiveness in emerging economies [27].

Comparison with Related Work

This research is valid and confirms the earlier empirical study concerning sustainability and performance. The scale of sustainability-performance relationship is also more prominent in a developing market (especially on non-financial results) as compared to those in developed ones.

Table 5: Comparison with Related Studies

Study	Context	Sustainability–Performance Relationship	Key Difference
Prior Developed Economy Studies	Europe, USA	Moderate positive impact	Strong governance focus
Emerging Economy Studies (Previous)	Asia, Africa	Mixed or weak evidence	Limited performance metrics
Current Study	Emerging Economies	Strong positive impact ($\beta = 0.44$)	Integrated ESG and performance model

Contrary to the previous studies which had a mix of dubious findings as a result of regulatory gaps and difficulties in implementation, this article demonstrates that sustainability practices can have a palpable performance return even in a weak institution. The latter effect on non-financial performance justifies the resource-based perspective, which indicates that the sustainability capacity increases organizational learning, innovation, and resilience [28].

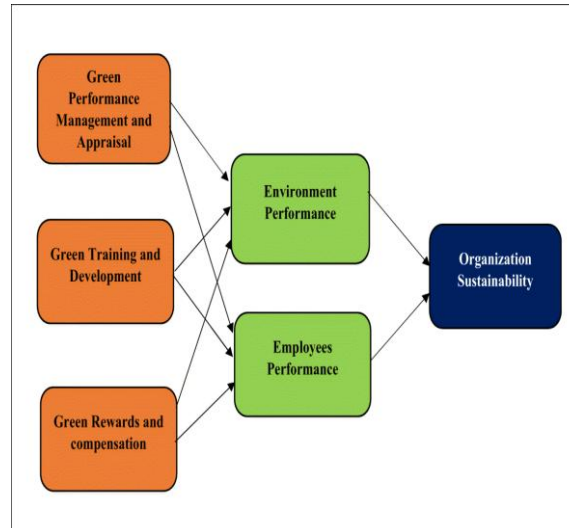


Figure 4: “Effect of green human resource management practices on organizational sustainability”

Discussion of Key Findings

The results create solid empirical evidence in the assertion that sustainable management practices are value-creating strategies as opposed to compliance-based expenses [29]. The environmental efforts enhance cost containment and resource efficiency, and social practices increase commitment and productivity among employees. Although in practice, governance practices are not as robust, they are essential to the requirements of transparency and long-term stability. Notably, the greater impact of non-financial performance implies that sustainability investments will create indirect financial gains in the long-run by enhancing the functioning procedure and reputational assets [30]. This applies especially in the emerging economies, where companies tend to depend on human resources and flexibility in order to cope with the uncertainty in the market.

V. CONCLUSION

This research aimed at investigating the association of sustainable management practices and organizational performance within the emerging economies to fill a very critical gap in the current sustainability and management literature. The empirical data is certainly well-grounded in the support of the fact that sustainable management practices, including the environmental, social, and governance aspects, have a strong influence on the financial and non-financial performance measures. More specifically, social sustainability practices that pertained to employee wellness, engagement, and involvement of stakeholders were the most potent drivers of organizational performance closely preceded by the presence of environmental practices enhancing resource efficiency and operational effectiveness. Although the influence was a relatively moderate one, governance practices were observed to have a vital role in enhancing transparency, accountability and long-term stability of organizations. These findings support the thesis that sustainability-oriented management is a strategic investment and not a cost driven by compliance, particularly in the emerging economies which are typified by institutional uncertainty and resource constraints. Incorporating sustainability into the fundamental managerial and operational processes, the firms are likely to build decisions that are of value in organizational terms and, therefore, increase resilience, innovation, and competitive advantage. The fact that the non-financial performance indicators were more affected also indicates that sustainability efforts lead to indirect financial benefits in the long-run due to the improvement of human capital, reputation, and operational processes. Theoretically, the research substantiates the extensions of the resource-based theory and the stakeholder theory because the sustainable management practices are shown to serve as intangible strategic resources that result in the achievement of high organizational levels of performance. In a practical sense, the results have significant implications on managers and policymakers in new economies, whereby there is a need to facilitate combined sustainability structures, enabling institutional policies, and capacity-building programs.

REFERENCE

- [1] Abu Afifa, M., Nguyen, N.M. & Bui, D.V. 2025, "Management accounting practices going sustainable: the move toward sustainable risk management in ASEAN developing economies", *Competitiveness Review*, vol. 35, no. 5, pp. 858.
- [2] Agnihotri, A., Bhattacharya, S., Vrontis, D. & Monge, F. 2024, "Managerial values and sustainable oriented innovation: Examining the role of knowledge exploration versus exploitation practices", *Journal of Knowledge Management*, vol. 28, no. 10, pp. 2793-2817.
- [3] Akihiro, I. & Kang, M.Y. 2025, "Sustainable Management Practices of E-Commerce Firms in Korea and Japan: A Comparative Analysis of Coupang and Rakuten", *Sustainability*, vol. 17, no. 22, pp. 9989.
- [4] Al-Ajlouni, M. & Athamneh, M.H.A. 2024, "Unleashing the Power of Green: Sustainable Success through HRM, Supply Chains, and Innovation - A Comprehensive Review of Literature", *Management*, vol. 28, no. 1, pp. 73-105.
- [5] Al-Ayed, S. 2025, "Influence of green supply chain and sustainability culture on sustainable performance", *Problems and Perspectives in Management*, vol. 23, no. 3, pp. 482-494.
- [6] Alhawamdeh, H., Al-Saad, S., Mohammad, S.A., Abd Al-Salam Ahmad Al-Hamad, Ahmad Y A Bani Bani, Ahmad & Firas Tayseer, M.A. 2023, "The Role of Energy Management Practices in Sustainable Tourism Development: A Case Study of Jerash, Jordan", *International Journal of Energy Economics and Policy*, vol. 13, no. 6, pp. 321-333.
- [7] Allam, N. & Mansour, M. 2024, "Do Green Human Resource Management Practices Improve Sustainable Performance?: Empirical Evidence From Egyptian Private Hospitals", *International Journal of Customer Relationship Marketing and Management*, vol. 15, no. 1, pp. 1-20.
- [8] Anabela, B.C., Muhammad, F.S., Martins, J.M. & Baheer, R. 2024, "Impact of green human resource management towards sustainable performance in the healthcare sector: role of green innovation and risk management", *Cogent Business & Management*, vol. 11, no. 1.
- [9] Atif, S.M., Zhang, Y., Sadiq, B. & Rana, F.G. 2025, "Sustainability Transformation Through Green Supply Chain Management Practices and Green Innovations in Pakistan's Manufacturing and Service Industries", *Sustainability*, vol. 17, no. 5, pp. 2204.
- [10] Attar, R.W., Amal, A. & Alhazmi, A.H. 2025, "Investigating the Effect of Talent Management Practices on Sustainable Competitive Advantage in Private-Sector Organizations", *Sustainability*, vol. 17, no. 21, pp. 9909.
- [11] Austen, A. & Piwowar-Sulej, K. 2024, "Green Human Resource Management in the manufacturing sector: a bibliometric literature review", *Ekonomia i Zarządzanie*, vol. 16, no. 4, pp. 34-47.
- [12] Bataineh, M.J., Aravamudhan, V., Prasanna Mohan Raj, M. & Sengodan, A. 2025, "Navigating in the Digital Age: Uncovering Insights on Talent Management for Sustainable Performance", *International Review of Management and Marketing*, vol. 15, no. 5, pp. 274-282.
- [13] Christina, J.L., Alamelu, R. & Nigama, K. 2025, "Synthesizing the impact of sustainable human resource management on corporate sustainability through multi method evidence", *Discover Sustainability*, vol. 6, no. 1, pp. 666.
- [14] Cortes-Pellicer, P. & Castelló-Sirvent, F. 2025, "Challenges for operational and business management of rice straw extraction: An analysis based on CIMO-logic and system thinking process with experts", *Journal of Industrial Engineering and Management*, vol. 18, no. 2, pp. 267-284.
- [15] Dekanić Antonio & Ježić Zoran 2025, "Sustainable Waste Management as a Determinant of Quality of Life in Croatian Island Communities", *Sustainability*, vol. 17, no. 8, pp. 3490.
- [16] Fazal, u.R., Sein, Y.Y. & Dmytrenko, D. 2023, "Translating the Impact of Internal and External Factors in Achieving the Sustainable Market Competitiveness: The Mediating Role of Management Practices", *Journal of Competitiveness*, vol. 15, no. 1, pp. 168-186.
- [17] Gao, H., Al Mamun, A., Masukujjaman, M. & Yang, Q. 2025, "Exploring the nexus of green human resource management, leadership and organizational culture on workplace pro-environmental behavior", *Humanities & Social Sciences Communications*, vol. 12, no. 1, pp. 987.
- [18] hagos, B.S., Kenenisa, L.D. & Kero, C.A. 2025, "Effects of Green Human Resource Management Practices on Organizational Sustainability Mediated by Employee Engagement: Evidence from Ethiopian Manufacturing Industries", *International Journal of Organizational Leadership*, , pp. 23-43.
- [19] Haleem, F., Farooq, S., Cheng, Y. & Waehrens, B.V. 2022, "Sustainable Management Practices and Stakeholder Pressure: A Systematic Literature Review", *Sustainability*, vol. 14, no. 4, pp. 1967.
- [20] Jahangir, S., Xie, R., Iqbal, A. & Hussain, M. 2025, "The Influence of Sustainable Human Resource Management Practices on Logistics Agility: The Mediating Role of Artificial Intelligence", *Sustainability*, vol. 17, no. 7, pp. 3099.



- [21] Kirubel, B.K., Ensermu, M. & Temesgen, B. 2023, "Sustainable Operations Management: A Systematic Review and Future Research Agenda", *Journal of Supply Chain Management Systems*, vol. 12, no. 1, pp. 38-58.
- [22] Li, J., Cong, C., Narciso García, Yuan, W., Liang, H. & He, Z. 2025, "The Impact of Supply Chain Management of Corporate Financial Performance from A Green Perspective: Basis for Sustainable Business Practices Framework", *Journal of Business and Management Studies*, vol. 7, no. 4, pp. 219-231.
- [23] Mazić, M., Edit Terek Stojanović, Stanisavljev, S. & Bakator, M. 2024, "Modelling the Influence of Management Practices on Sustainable Market Performance in Serbian Enterprises", *Sustainability*, vol. 16, no. 19, pp. 8481.
- [24] McDaniel, T., Süle Edit & Gyula, V. 2025, "Achieving Sustainable Supply Chains: Applying Group Concept Mapping to Prioritize and Implement Sustainable Management Practices", *Logistics*, vol. 9, no. 3, pp. 99.
- [25] Md, M.M. 2025, "Waste management techniques to promote sustainability and green practices", *Management of Environmental Quality*, vol. 36, no. 1, pp. 183-207.
- [26] Michael, K.A., Dordaah, J.N., Sam, A. & Amaning, N. 2024, "Modelling the implications of sustainable supply chain management practises on firm performance: the mediating role of green performance", *Cogent Engineering*, vol. 11, no. 1.
- [27] Mohammed, A.S., Madhavan, M. & Chaichana, T. 2022, "The Effects of Innovation Adoption and Social Factors between Sustainable Supply Chain Management Practices and Sustainable Firm Performance: A Moderated Mediation Model", *Sustainability*, vol. 14, no. 15, pp. 9099.
- [28] Muhammad, S.M. & Muhammad, A.C. 2022, "How Quality Management Practices Lead Innovation in Higher Education: A Framework for Universities' Sustainability in Pakistan", *International Journal of Management Research and Emerging Science*, vol. 12, no. 3.
- [29] Nadin, A., Sara, A., Vian, A. & Zied, B. 2025, "A Systematic Literature Review of Artificial Intelligence Advancements in Green Human Resource Management", *Sustainability*, vol. 17, no. 22, pp. 10283.
- [30] Olubiyi, T.O., Omoyele, O.S., Ildigwe, S.C., Adeoye, O.O., Makinde, G.O. & Ravinder, R. 2024, "THE LINKAGE BETWEEN KNOWLEDGE MANAGEMENT PRACTICES AND SUSTAINABLE BUSINESS GROWTH: EMPIRICAL EVIDENCE FROM NIGERIA", *Revista de Gestão Social e Ambiental*, vol. 18, no. 5, pp. 1-35.