Green innovation in hospitality industry: role of environmental strategies and top management support

I Wayan Edi Arsawan[1*], *Olha* Prokopenko[2,3], *Viktor* Koval [4], *Yigit* Kazancoglu[5], *Nurul* Asyikeen Binti Abdul Jabar[6], and *Ni Putu* Maha Lina[1]

[1]Politeknik Negeri Bali, Department of Business Administration, 80364 Tuban, Bali, Indonesia
[2]Estonian Entrepreneurship University of Applied Science, 11415 Tallinn, Estonia
[3]Academy of Applied Sciences Mazovia, 08-110 Siedlce, Poland
[4]Izmail State University of Humanities, 68601 Izmail, Ukraine
[5]Yasar University, Department of Logistics Management, 35100 Izmir, Turkey
[6]Management and Science University, 40100 Shah Alam, Selangor, Malaysia

Abstract. Sustainability concerns are becoming pressing in the hospitality sector, which requires incorporating the green innovation approach to yield excellent business performance and preserve the environment. However, the drivers that underpin green innovation have yet to be comprehensively established. This study aims to examine the drivers of green innovation and investigate top management support as a moderator. Data were sourced from 121 eco-friendly hotels, which comprised 276 respondents analyzed with SEM-PLS. The results demonstrated that embedding environmental strategies significantly affected top management support and green innovation. In addition, the results notably denoted that top management support mediated and moderated the relationship between environmental strategies and green innovation. This paper also discusses the theoretical and managerial implications in further detail.

1 Introduction

In the intensifying competitions, it is desirable for organizations to innovate sustainably [1–3] to elevate performance, resilience, and competitiveness [4,5]. Regarding the sustainability aspect, innovation plays a substantial role. The literature has pointed out that organizations are encouraged to actively engage in green-oriented programs [6]. With the requirement to enforce environmental preservation programs, green innovation is perceived as an alternate solution to sustainable development goals [7–9]. The implementation of green innovation has attracted the attention of scholars and practitioners to facilitate environmental preservation [2,10]. However, the literature that defines the triggers for green innovation is relatively unexplored, leading to diverging views and approaches. Moreover, research subjects are also diverse.

* Corresponding author: wayanediarsawan@pnb.ac.id

The scholars [11–13] state the significance of green innovation in SMEs; meanwhile [14, 15] denote the relevance in the manufacturing sector. Nevertheless, related studies in the hospitality sector, at present, remain seldom. This study will bridge the subsequent research gaps. First, existing literature that accounts for green innovation drivers is lacking [11], although it is crucial to determine why organizations perform green innovation by setting up rules or mechanisms that promote pro-environmental behaviour [16]. It has prompted organizations to establish a standard operating procedure that encourages the development of eco-friendly characteristics [17]. Second, the relationship between top management support and green innovation has not yet been fully explored in the available literature despite successful green innovation is primarily determined by the preparedness and experience of managers in contributing to the environment [18,19]. The critical role of top management support is to provide regulations and preparedness to establish an eco-friendly organizational culture [16,20]. Third, the mechanism of strengthening green innovation through mediation or moderation is notable for two reasons. First, the relationship between environmental strategies and green innovation is subject to the full support of top management [19]. Amplifying the relationship between environmental strategies and green innovation through top management support will facilitate organizations to set up regulations, funding, and procedures that support saving the environment [21].

Subsequently, to bridge the research gaps, this study is implemented on the hospitality sector in Indonesia under three primary considerations. First, with the shifting of priority programs aside from the oil and gas sector, tourism is propelled as an essential aspect of national development with the prospect of becoming an alternate source of foreign exchange and stimulating the absorption of potential employment [22]. Accordingly, tourism infrastructure development, especially hospitality, is obligated to preserve environmental resilience. Second, Indonesia has continuously endeavoured to design sustainable development strategies, promote pro-environmental activities, and reinforce industry participation in environmental preservation [18]. Third, Indonesia ranks 116 out of 180 countries, meaning the environmental performance index requires further enhancement [23]. Consequently, investigating green innovation in the hospitality industry is justifiable.

2 Literature review and hypotheses development

2.1 Green innovation in the hospitality industry

The hospitality sector holds an indispensable role in preserving the environment. It consumes resources, including water, land, agricultural, and coastal areas, that have led to the impoverishment of natural resources [24–26]. Therefore, it is crucial to enact regulations that oblige hotels to proactively participate in preserving the environment [16]. Literature indicates that the hospitality sector has made considerable efforts to implement various pro-environmental measures. It includes the recruitment process and adopting green human resource management through green recruitment, green training, and green performance [27]. Furthermore, it is followed by developing a pro-environmental organizational culture [28,29]. Moreover, the hospitality sector has attempted to address pro-environmental challenges by gradually incorporating green innovation [30,31]. First, preparing environment-oriented personnel through GHRM [32] to ensure that employees possess pro-environmental behaviour, green lifestyle [27], and passion for preserving the environment [33]. Second, develop pro-environmental behaviour policies through green strategies [7,34]. Third, create leadership regulations that favour green innovation [18,19]. Thus, green innovation is the outmost significant aspect of enhancing environmental performance.

2.2 Environmental strategies and top management support

Literature on environmental strategies has captivated scholars' attention. It verifies the heightened concern for preserving the environment [35]. However, the interlinkages between environmental strategies and top management support remain understudied. The vision and mission of the organization in participating in environmental preservation have stimulated the development of environmentally oriented strategies [36]. This orientation generates various pro-environmental policies that trigger top management commitment to establish relevant policies [37]. Therefore, top leadership support is achieved when the hotel has a strategic policy that favours environmental sustainability. Consequently, this is the formulated hypothesis.

H1. Environmental strategies significantly affects top management support.

2.3 Top management support and green innovation

The emerging role of top leaders in encouraging environmental preservation has been scrutinized by scholars [18,19,38]. The findings reveal that the role of top leaders is to generate concrete recommendations related to efforts to preserve the environment. Furthermore, environmental regulations formulated by leaders are expected to promote the adoption of green innovation to attain sustainable organizational capabilities [12,39]. The support from the leaders can include policy formulation, the upgrading of green intellectual capital, or circular economy practices [19,21,40]. Subsequently, this is the formulated hypothesis.

H2. Top management support significantly affects green innovation

2.4 Environmental strategies and green innovation

Green innovation is a critical construct in environmental performance [29,41,42]. Scholars have identified that this construct is crucial in building organizational competitiveness [29,43,44]. Nevertheless, research linking environmental strategy as a determinant of green innovation has hardly been examined in the literature [42]. A set of regulations and strategies fosters the realization of green innovation. A decently designed environmental strategy allows organizations to embed various environmental issues into operational activities [41] and helps promote the sustainable development of green products [44-46], green processes [7], and green management [19,43,47]. Accordingly, this is the formulated hypothesis.

H3. Environmental strategies significantly affect green innovation.

2.5 Mediating role of top management support

We recommend that the relationship between environmental strategies and green innovation is partial, considering that top management support is a mediator between environmental strategies and green innovation. Hence, environmental strategies are fundamental to achieving top management involvement [18] and building pro-environmental regulations [19] that are aligned with the organization's vision and mission of preserving the environment [24,48]. Moreover, environmental strategies are the cornerstone of stimulating top leadership commitment, ultimately responsible for implementing green innovation [34,49]. Therefore, this is the formulated hypothesis.

H4. Top management support partially mediates the relationship between environmental strategies and green innovation.

2.6 Moderating role of top management support

The model in this study investigates the role of top management support as a moderator of the relationship between environmental strategies and green innovation. The available literature has never evaluated this role, although top leadership commitment strategically amplifies green innovation [18]. The culture established by leaders promotes the acceleration of implementing environmental strategies in the organization [19,50]. Moreover, top leaders actively disseminate policies that prompt all organizational elements to perform green innovation toward business performance [51]. Ultimately, the formed culture aids the organization in developing and implementing green innovation at both the individual and organizational levels [7,29,44]. Thus, this is the formulated hypothesis.
H5. Top management support moderates the relationship between environmental strategies and green innovation

Drawing from NRBV, the research model is illustrated in Figure 1.

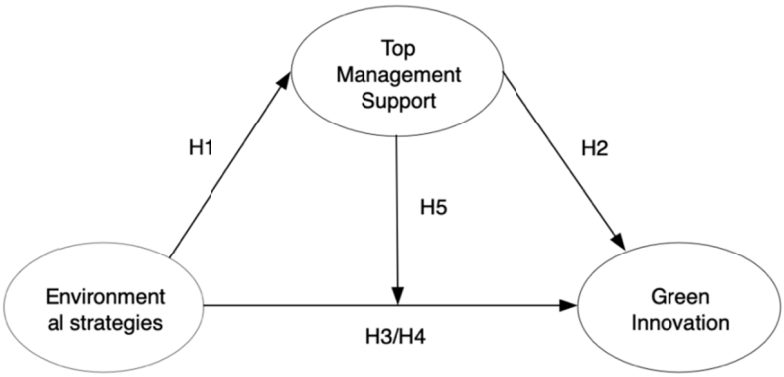

Fig. 1. Determinant of green innovation model.

3 Method

3.1 Sampling procedures

The population in this study comprised three, four, and five-star hotels in Bali, Indonesia, including 121 units. Subsequently, we utilized the formula [52] and obtained 92 frame sample units. Further, purposive sampling was used with the following criteria. First, it has an environmental management system certificate SNI-ISO 14001: 2015. Second, it has a quality management system SNI-ISO 9001: 2015 as a quality management aspect, either technical or economic, in the environmental context. Third, it implemented green innovation in process, product, and management. Furthermore, to designate the respondents, we requested 92 hotel units to be represented by three respondents from three management levels. The respondent selection method employed in the survey is non-replacement, ensuring that the survey fulfils scientific principles. It yielded a total of 276 respondents. A cover letter was attached to the survey to comply with university ethical standards. The questionnaire was administered using google forms, and the respondents were asked to fill out a questionnaire naturally. The questionnaire explained the purpose of the study, highlighted that participation in the survey was entirely voluntary, and declared that the data would only be analysed on an aggregated basis for scientific purposes.
The questionnaire used a 5-point Likert scale. The detailed calculation of population and sample withdrawal is depicted in Table 1.

Table 1. Sample Determination.

No	Hotel	Population	Population Percentage	(x) Sample	Sample	Respondents
1	Hotel 3*	38	31.4	11.932	12	36
2	Hotel 4*	38	31.4	11.932	12	36
3	Hotel 5*	45	37.2	16.740	68	204
	Total	121	100		92	276

3.2 Measurements

The constructs in this study were derived from the previous studies. First, the environmental strategies were measured by 4 indicators adapted from [18,42]. Second, top management support was measured by 9 indicators adapted from [18,19]. Third, green innovation was measured by 8 indicators adapted from [15,42]. Subsequently, we employed the SEM-PLS with several notable considerations in this study [53]. First, PLS was a rapidly developing software that tests and predicts theories. Second, PLS was convenient for testing mediation and moderation variables with various optional features. Third, PLS enabled researchers to perform simultaneous variable testing.

4 Result and discussion

In order to achieve the study's objectives, the survey involved 276 respondents from four departments that implemented green innovation in their regularly scheduled activities. Table 2 presents the demographic information of the respondents.

Table 2. Respondent profile.

Profile	Amount	Percentage
Age	55	0,20
21-30	123	0,45
31-40	98	0,36
41-50	55	0,20
Educational level		
Bachelor	228	0,83
Master	45	0,16
Doctor	3	0,01
Experiences		
1-10	58	0,21
11-20	162	0,59
21-30	56	0,20
Gender		
Male	193	0,70
Female	83	0,30
Hotel classification		
3*	36	0,13
4*	36	0,13
5*	204	0,74
Department		
HR	149	0,54
Sales & Marketing	67	0,24
Engineering	31	0,11
F&B	29	0,11

4.1 Outer model measurements

Table 3 demonstrates that the loading factors met the requirement of >0.6. Furthermore, the CR value was >0.7, while the AVE value exceeded the recommended 0.5. Hence, the criteria of validity and reliability were fulfilled [54].

Table 3. Construct measurements.

Constructs	Loading	CA	CR	AVE
Environmental strategies		0.884	0.920	0.743
1. Performance indicators resources use	0.838			
2. Environment research investment	0.859			
3. ISO certification	0.892			
4. Long-term environmental commitment	0.857			
Top management support		0.885	0.916	0.686
1. Environmental work contribution	0.801			
2. Environmental cost information	0.857			
3. Emphasis environmental performance	0.849			
4. Improve EMS	0.834			
5. Treat environmental performance	0.800			
6. Effort to environmental performance	0.850			
7. Target of environmental performance	0.896			
8. Accurate information	0.880			
9. Environmental responsibility	0.853			
Green innovation		0.888	0.888	0.641
1. Reduce consumption	0.780			
2. Reuse materials	0.806			
3. Recycle materials	0.806			
4. Develop clean technology	0.817			
5. Pollution prevention	0.827			
6. Reduce emissions	0.765			
7. Reduce raw materials	0.794			
8. Waste management	0.788			

4.2 Inner model measurements

To examine the significance of indicators and path coefficients, we applied the 5000-sample bootstrap method as prescribed by experts [55]. The findings confirmed that the goodness-of-fit (GoF) of the model reached 0.675, which signified the significance of the model's fitness. Consequently, these results implied that the proposed green innovation model applicable to the hospitality sector. Moreover, examination of the standardized residual root mean square (SRMR) and normed fit index (NFI) indicated that the SRMR value reached 0.063, while the NFI reached 0.065, confirming that the model was fit [56]. Subsequently, the R^2 examination showed that environmental strategy and top management support accounted for 0.144 (14.4%) of the variance in green innovation. Meanwhile, the R2 value for top management support reached 0.024 (2.4%), which was affected by the environmental strategies variable. Eventually, all Q^2 values were positive, suggesting that all the variables have good predictive relevance.

4.3 Hypotheses testing

Table 4 demonstrates that the relationship between environmental strategies and top management support was significant (β=0.153, t-value=2.268), suggesting that H1 was accepted.

This result confirmed previous findings that organizations were increasingly attentive to preserving the environment [35]. The hospitality industry contributed to environmental preservation by establishing a designated vision and mission [36], leading to pro-environmental policies that stimulated leadership commitment to developing relevant policies [37]. Therefore, top management support was achieved when the hotel adopted a strategic policy that favored environmental preservation [18]. Furthermore, the relationship between top management support and green innovation was significant (β=0.283, t-value=5.025), and thus H2 was accepted. This study provided evidence to support previous studies concerning the emerging role of top management in supporting environmental sustainability [18,19,38]. In addition, the resulting regulation promoted the adoption of green innovation to attain sustainable organizational capabilities [12]. Support from leaders entailed policies, upgrading green intellectual capital, or implementing circular economy practices [19,21,40].

The relationship between environmental strategies and green innovation was significant (β=0.153, t-value=2.268); therefore, H3 was supported. This study became one of the first to explore the relationship between the two constructs. A reasonable explanation was a set of regulations and strategies to promote green innovation. Further, a well-designed environmental strategy in organizations was facilitated to incorporate a broad range of ecological issues into operational activities [41] and fosters the sustainable development of green products [44,46], green processes [7], and green management [19,43,47].

Table 4. Hypotheses testing.

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Remark
Environmental Strategies -> Top Management Support (H1)	0.156	0.174	0.053	2.942	0.003	Significant
Top Management Support -> Green Innovation (H2)	0.283	0.294	0.056	5.025	0.000	Significant
Environmental Strategies -> Green Innovation (H3)	0.153	0.170	0.068	2.268	0.024	Significant

Table 5. Indirect testing.

Environmental Strategies -> Top Management Support -> Green Innovation (H4)	0.044	0.051	0.019	2.386	0.017	Significant
Top Management Support*Environmental Sreategies -> Green Innovation (H5)	0.216	0.207	0.094	2.300	0.022	Significant

Subsequently, Table 5 provides information on the moderating mediation mechanism in this study. First, we examined the role of top management support as mediating the relationship between environmental strategies and green innovation (β=0.044, t-value=2.386) was significant; thus, H4 was accepted. The findings highlighted that environmental strategies served as the underpinning to generate top management participation [18] in establishing pro-environmental regulations [19] in aligning with the organization's vision and mission of preserving the environment [24,48]. Accordingly, environmental strategies became the cornerstone to trigger top management commitment, leading to responsible for green innovation implementation [34,49].

In the moderation mechanism, top management support amplified the relationship between environmental strategies and green innovation (β=0.216, t-value=2.300); hence, H5 was supported. Top management support's critical role was strategically reinforcing green innovation [18].

Besides, leaders promoted the acceleration of implementing environmental strategies [19] and disseminated policies that prompted all elements of the organization to implement green innovation [51]. Eventually, the formed culture aided the organization in evolving and implementing green innovation at the individual and organizational levels [7,29,44].

Ultimately, this study reinforced the natural resource-based view [57, 58] that environmental strategies and top management support were pollution prevention in practicing green innovation. Furthermore, the analysis denoted that environmental strategies were manifested in various pro-environmental regulations. Specifically, it demonstrated that environmental strategies led to the emergence of an active role of top management in implementing green innovation (Figure 2).

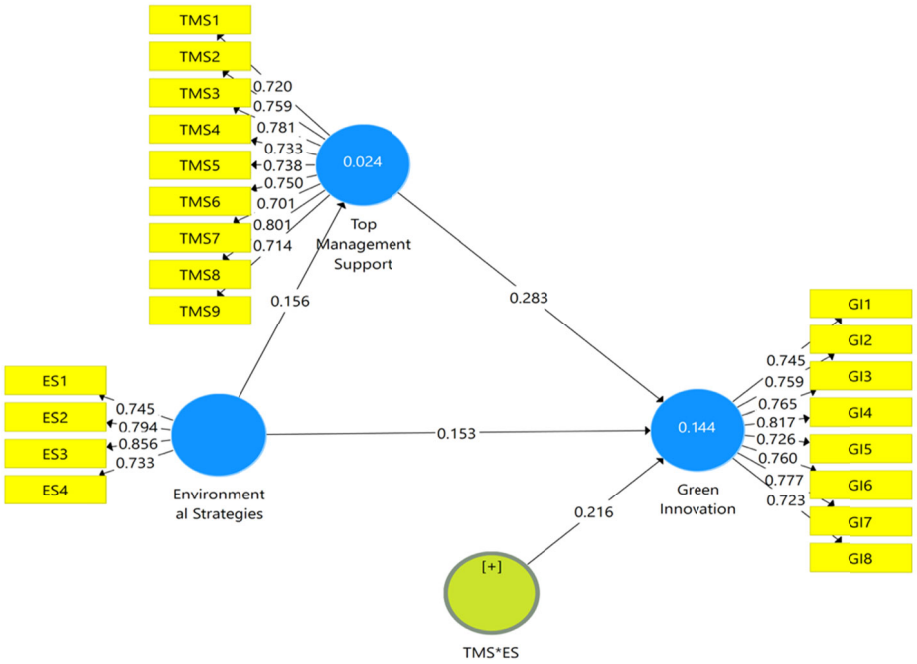

Fig. 2. Output analysis.

5 Conclusions

The hospitality industry holds an immense role in preserving the environment. It has prompted hotels and restaurants to engage in designing strategies and involvement to achieve green innovation sustainably. Four main conclusions are derived from this study. First, environmental strategies are vital to stimulate top management to support pro-environmental programs and green innovation. Second, top management support partially mediates the relationship between environmental strategies and green innovation. Ultimately, top management support moderates the relationship between environmental strategies and green innovation.

Regardless of the theoretical and practical implications, this study has two limitations. First, the study used a small sample in a single country. Consequently, future studies have further examined this model in the context of other countries. Second, given that green innovation is a broad construct, it is worth developing a model by considering organizational outcomes, i.e., environmental performance, corporate environmental legitimacy, and environmental reputation.

The authors extend their gratitude to Research and Community Service Department, Politeknik Negeri Bali, Indonesia, on the International Research Collaborations (IRCs) research grant contract No. 1766/PL.8/AL.04/2023. Besides, the authors would like to thank the research team from Indonesia, Turkey, Ukraine, and Malaysia for all their enormous contributions and encouragement.

References

1. Arsawan, I. W. E., De Hariyanti, N. K., Atmaja, I. M. A. D. S., Suhartanto, D., & Koval, V. (2022). Developing Organizational Agility in SMEs: An Investigation of Innovation's Roles and Strategic Flexibility. Journal of Open Innovation: Technology, Market, and Complexity, 8(3), 149. https://doi.org/https://doi.org/10.3390/joitmc8030149
2. Hameed, W. U., Nisar, Q. A., & Wu, H. C. (2021). Relationships between external knowledge, internal innovation, firms' open innovation performance, service innovation and business performance in the Pakistani hotel industry. International Journal of Hospitality Management, 92. https://doi.org/10.1016/j.ijhm.2020.102745
3. Cosenz, F., & Bivona, E. (2020). Fostering growth patterns of SMEs through business model innovation. A tailored dynamic business modelling approach. Journal of Business Research. https://doi.org/https://doi.org/10.1016/j.jbusres.2020.03.003
4. Van Holt, T., Statler, M., Atz, U., Whelan, T., van Loggerenberg, M., & Cebulla, J. (2020). The cultural consensus of sustainability-driven innovation: Strategies for success. Business Strategy and the Environment, 29(8). https://doi.org/10.1002/bse.2584
5. Allal-Chérif, O., Costa Climent, J., & Ulrich Berenguer, K. J. (2023). Born to be sustainable: How to combine strategic disruption, open innovation, and process digitization to create a sustainable business. Journal of Business Research, 154. https://doi.org/10.1016/j.jbusres.2022.113379
6. Green, K. W., Toms, L. C., & Clark, J. (2015). Impact of market orientation on environmental sustainability strategy. Management Research Review, 38(2), 217–238. https://doi.org/10.1108/MRR-10-2013-0240
7. Jirakraisiri, J., Badir, Y. F., & Frank, B. (2021). Translating green strategic intent into green process innovation performance: the role of green intellectual capital. Journal of Intellectual Capital, 22(7), 43–67. https://doi.org/10.1108/JIC-08-2020-0277
8. Barforoush, N., Etebarian, A., Naghsh, A., & Shahin, A. (2021). Green innovation a strategic resource to attain competitive advantage. International Journal of Innovation Science, 13(5), 645–663. https://doi.org/10.1108/IJIS-10-2020-0180
9. Guo, Y., Wang, L., & Yang, Q. (2020). Do corporate environmental ethics influence firms' green practice? The mediating role of green innovation and the moderating role of personal ties. Journal of Cleaner Production, 266, 122054. https://doi.org/10.1016/j.jclepro.2020.122054
10. Nieves, J., & Quintana, A. (2018). Human resource practices and innovation in the hotel industry: The mediating role of human capital. Tourism and Hospitality Research, 18(1), 72–83. https://doi.org/10.1177/1467358415624137
11. Cuerva, M. C., Triguero-Cano, Á., & Córcoles, D. (2014). Drivers of green and non-green innovation: Empirical evidence in Low-Tech SMEs. Journal of Cleaner Production, 68, 104–113. https://doi.org/10.1016/j.jclepro.2013.10.049
12. Aboelmaged, M., & Hashem, G. (2019). Absorptive capacity and green innovation adoption in SMEs: The mediating effects of sustainable organisational capabilities. Journal of Cleaner Production, 220, 853–863. https://doi.org/10.1016/j.jclepro.2019.02.150

13. Ustik, T., Morokhova, V., Savras, I., Golda, N., Lukhanina, K., & Sidielnikov, D. (2023). Strategies of Socially Responsible Online Marketing and Advertising Management of Trade Enterprises. Economic Affairs, 68(01s), 353-360. https://doi.org/10.46852/0424-2513.1s.2023.38
14. Sezen, B., & Çankaya, S. Y. (2013). Effects of Green Manufacturing and Eco-innovation on Sustainability Performance. Procedia - Social and Behavioral Sciences, 99, 154–163. https://doi.org/10.1016/j.sbspro.2013.10.481
15. Rehman, S. U., Kraus, S., Shah, S. A., Khanin, D., & Mahto, R. V. (2021). Analyzing the relationship between green innovation and environmental performance in large manufacturing firms. Technological Forecasting and Social Change, 163. https://doi.org/10.1016/j.techfore.2020.120481
16. Authelet, M., Subervie, J., Meyfroidt, P., Asquith, N., & Ezzine-de-Blas, D. (2021). Economic, pro-social and pro-environmental factors influencing participation in an incentive-based conservation program in Bolivia. World Development, 145, 105487. https://doi.org/10.1016/j.worlddev.2021.105487
17. Kim, Y. J., Kim, W. G., Choi, H. M., & Phetvaroon, K. (2019). The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance. International Journal of Hospitality Management, 76, 83–93. https://doi.org/10.1016/j.ijhm.2018.04.007
18. Latan, H., Chiappetta Jabbour, C. J., Lopes de Sousa Jabbour, A. B., Wamba, S. F., & Shahbaz, M. (2018). Effects of environmental strategy, environmental uncertainty and top management's commitment on corporate environmental performance: The role of environmental management accounting. Journal of Cleaner Production, 180, 297–306. https://doi.org/10.1016/j.jclepro.2018.01.106
19. Haldorai, K., Kim, W. G., & Garcia, R. L. F. (2022). Top management green commitment and green intellectual capital as enablers of hotel environmental performance: The mediating role of green human resource management. Tourism Management, 88. https://doi.org/10.1016/j.tourman.2021.104431
20. Ling, M., & Xu, L. (2021). How and when financial incentives crowd out pro-environmental motivation: A longitudinal quasi-experimental study. Journal of Environmental Psychology, 7, 101715. https://doi.org/10.1016/j.jenvp.2021.101715
21. Arsawan, I. W. E., Koval, V., Suhartanto, D., Hariyanti, N. K. D., Polishchuk, N., & Bondar, V. (2023). Circular economy practices in SMEs: aligning model of green economic incentives and environmental commitment. International Journal of Productivity and Performance Management. https://doi.org/10.1108/IJPPM-03-2022-0144
22. Subawa, N. S., Widhiasthini, N. W., Astawa, I. P., Dwiatmadja, C., & Permatasari, N. P. I. (2021). The practices of virtual reality marketing in the tourism sector, a case study of Bali, Indonesia. Current Issues in Tourism, 24(23), 3284–3295. https://doi.org/10.1080/13683500.2020.1870940
23. Yale. (2020). Environmental Performance Index 2020. Yale University, (July).
24. Pham, N. T., Vo Thanh, T., Tučková, Z., & Thuy, V. T. N. (2020). The role of green human resource management in driving hotel's environmental performance: Interaction and mediation analysis. International Journal of Hospitality Management, 88. https://doi.org/10.1016/j.ijhm.2019.102392
25. Nisar, Q. A., Haider, S., Ali, F., Jamshed, S., Ryu, K., & Gill, S. S. (2021). Green human resource management practices and environmental performance in Malaysian green hotels: The role of green intellectual capital and pro-environmental behavior. Journal of Cleaner Production, 311, 127504. https://doi.org/10.1016/j.jclepro.2021.127504

26. Saienko, V., Mezentseva, I., Tolchieva, H., & Salkova, I. (2020). Efficiency of tourism operators' and tourism agents' activities in the market of tourist services of Ukraine. Journal of Environmental Management and Tourism, XI, Winter, 8(48), 1960-1966. https://doi.org/10.14505/jemt.v11.8(48).08
27. Ragas, S. F. P., Tantay, F. M. A., Chua, L. J. C., & Sunio, C. M. C. (2015). Green lifestyle moderates GHRM's impact to job performance. International Journal of Productivity and Performance Management, 66 (7), 857-872. https://doi.org/https://doi.org/10.1108/IJPPM-04-2016-0076
28. Luu, T. T. (2018). Employees' green recovery performance: the roles of green HR practices and serving culture. Journal of Sustainable Tourism, 26(8), 1308–1324. https://doi.org/10.1080/09669582.2018.1443113
29. Wang, C. H. (2019). How organizational green culture influences green performance and competitive advantage: The mediating role of green innovation. Journal of Manufacturing Technology Management, 30(4), 666–683. https://doi.org/10.1108/JMTM-09-2018-0314
30. Karyy, O., Kulyniak, I., Struchok, N., Halkiv, L., & Ohinok, S. (2021). Evaluation of the Tourist Attractiveness of Ukraine's Regions in the Conditions of Uncertainty Using Game Theory. In: Proceedings of the 11th International Conference on Advanced Computer Information Technologies, ACIT 2021, pp. 351-355. https://doi.org/10.1109/ACIT52158.2021.9548360
31. Parfinenko, A., Sokolenko, L., Bielialov, T., Karpenko, N.G., & Tolubyak, V. (2019). Sustainable development of world tourism based on the strategic management. Academy of Strategic Management Journal, 18(1), 1–7.
32. Shoaib, M., Abbas, Z., Yousaf, M., Zámečník, R., Ahmed, J., & Saqib, S. (2021). The role of GHRM practices towards organizational commitment: A mediation analysis of green human capital. Cogent Business and Management, 8(1). https://doi.org/10.1080/23311975.2020.1870798
33. Jia, J., Liu, H., Chin, T., & Hu, D. (2018). The continuous mediating effects of GHRM on employees' green passion via transformational leadership and green creativity. Sustainability (Switzerland), 10(9), 3237. https://doi.org/10.3390/su10093237
34. Kraus, S., Rehman, S. U., & García, F. J. S. (2020). Corporate social responsibility and environmental performance: The mediating role of environmental strategy and green innovation. Technological Forecasting and Social Change, 160, 120262. https://doi.org/10.1016/j.techfore.2020.120262
35. Darvishmotevali, M., & Altinay, L. (2022). Green HRM, environmental awareness and green behaviors: The moderating role of servant leadership. Tourism Management, 88. https://doi.org/10.1016/j.tourman.2021.104401
36. Saleem, F., Qureshi, S. S., & Malik, M. I. (2021). Impact of environmental orientation on proactive and reactive environmental strategies: Mediating role of business environmental commitment. Sustainability (Switzerland), 13(15). https://doi.org/10.3390/su13158361
37. Chan, R. Y. K., Lai, J. W. M., & Kim, N. (2022). Strategic motives and performance implications of proactive versus reactive environmental strategies in corporate sustainable development. Business Strategy and the Environment. https://doi.org/10.1002/bse.3011
38. Arain, G. A., Bhatti, Z. A., Hameed, I., & Fang, Y. H. (2019). Top-down knowledge hiding and innovative work behavior (IWB): a three-way moderated-mediation analysis of self-efficacy and local/foreign status. Journal of Knowledge Management, 24(2), 127–149. https://doi.org/10.1108/JKM-11-2018-0687

39. Prokopenko, O., Chechel, A., Sotnyk, I., Omelyanenko, V., Kurbatova, T., & Nych, T. (2021). Improving state support schemes for the sustainable development of renewable energy in Ukraine. Polityka Energetyczna, 24(1), 85-100. https://doi.org/10.33223/epj/134144
40. Koval, V., Arsawan, I., Suryantini, N. P. S., Kovbasenko, S., Fisunenko, N., & Aloshyna, T. (2023). Circular Economy and Sustainability-Oriented Innovation: Conceptual Framework and Energy Future Avenue. Energies, 16(1), 243.
41. Huang, J. W., & Li, Y. H. (2018). How resource alignment moderates the relationship between environmental innovation strategy and green innovation performance. Journal of Business and Industrial Marketing, 33(3), 316–324. https://doi.org/10.1108/JBIM-10-2016-0253
42. Arsawan, I. W. E., Koval, V., Duginets, G., Kalinin, O., & Korostova, I. (2021). The impact of green innovation on environmental performance of SMEs in an emerging economy. In E3S Web of Conferences (Vol. 255, p. 1012). EDP Sciences.
43. Soewarno, N., Tjahjadi, B., & Fithrianti, F. (2019). Green innovation strategy and green innovation: The roles of green organizational identity and environmental organizational legitimacy. Management Decision, 57(11), 3061–3078. https://doi.org/10.1108/MD-05-2018-0563
44. Qiu, L., Jie, X., Wang, Y., & Zhao, M. (2020). Green product innovation, green dynamic capability, and competitive advantage: Evidence from Chinese manufacturing enterprises. Corporate Social Responsibility and Environmental Management, 27(1). https://doi.org/10.1002/csr.1780
45. Chen, Y. S., & Chang, C. H. (2013). The Determinants of Green Product Development Performance: Green Dynamic Capabilities, Green Transformational Leadership, and Green Creativity. Journal of Business Ethics, 116(1), 107–119. https://doi.org/10.1007/s10551-012-1452-x
46. Chang, C. H., & Chen, Y. S. (2013). Green organizational identity and green innovation. Management Decision, 51(5). https://doi.org/10.1108/MD-09-2011-0314
47. Chen, L. F. (2019). Hotel chain affiliation as an environmental performance strategy for luxury hotels. International Journal of Hospitality Management, 77, 1–6. https://doi.org/10.1016/j.ijhm.2018.08.021
48. Zhang, S., Wang, Z., & Zhao, X. (2019). Effects of proactive environmental strategy on environmental performance: Mediation and moderation analyses. Journal of Cleaner Production, 235, 1438–1449. https://doi.org/10.1016/j.jclepro.2019.06.220
49. El-Kassar, A. N., & Singh, S. K. (2019). Green innovation and organizational performance: The influence of big data and the moderating role of management commitment and HR practices. Technological Forecasting and Social Change, 144(December), 483–498. https://doi.org/10.1016/j.techfore.2017.12.016
50. Halkiv, L., Karyy, O., Kulyniak, I., Kis, Y. & Adamovsky, A. (2022). Human Potential Innovatization Analysis: the System of Crisis Management Determinants Context. CEUR Workshop Proceedings, 3171, 1606-1616.
51. Krejcie, R. V, & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607–610.
52. Hair, J. F., Hult, G., Tomas, M., Ringle, C. M., & Sarstedt, M. (2016). A primer on partial least squares structural equation modeling (PLS-SEM). Sage publications.
53. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2-24. https://doi.org/10.1108/EBR-11-2018-0203
54. Chin, W. W. (2010). How to Write Up and Report PLS Analyses. In Handbook of Partial Least Squares (pp. 655–690).

55. Tenenhaus, M., Vinzi, V. E., Chatelin, Y.-M., & Lauro, C. (2005). PLS path modeling. Computational Statistics & Data Analysis, 48(1), 159–205.
56. Hart, S. (1995). A Natural-Reouces Based View of the Firm. Academy of Management Review, 51(3), 49–51.
57. Hart, S. L., & Dowell, G. (2011). A natural-resource-based view of the firm: Fifteen years after. Journal of Management, 37(5), 1464–1479. https://doi.org/10.1177/0149206310390219
58. Edeh, F.O., Zayed, N.M., Perevozova, I., Kryshtal, H., & Nitsenko, V. (2022). Talent Management in the Hospitality Sector: Predicting Discretionary Work Behaviour. Administrative Sciences, 12(4), 122. https://doi.org/10.3390/admsci12040122.