The Role of Green Knowledge Management in Driving Organizational Green Innovation: A Systematic Literature Review

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Abstract
Green Knowledge Management (GKM) plays a pivotal role in driving organizational green innovation by enhancing sustainability through the systematic acquisition, storage, sharing, and application of green knowledge. Studies demonstrate that GKM significantly contributes to business sustainability and innovation capabilities, as seen in the mining industry of South Kalimantan, where elements like green knowledge acquisition and application positively impact performance. Institutional support is crucial, with universities needing to reconfigure their infrastructures to foster green innovation. Collaborative multi-stakeholder efforts are vital for producing actionable insights, while government investment in green innovation proves more effective than corporate investment due to a higher risk appetite. To achieve this, we conducted an extensive search of scholarly articles from reputable databases such as Scopus and Web of Science (WoS), focusing on studies published between 2022 and 2024—the flow of study on the PRISMA framework. The database found (n=518) that the final primary data was analyzed. The findings were divided into three themes: (1) Green Knowledge Management and Green Innovation, (2) Green Knowledge Management and Organizational Performance, and (3) Green Knowledge Management and Organizational Learning Capabilities. The integration of digital technologies further enhances green innovation performance, underscoring the need for comprehensive strategies that incorporate resource management, institutional support, and technological advancements to achieve organizational sustainability and innovation. Future research should explore GKM's impact across various industries and cultural contexts to develop holistic approaches for enhancing green innovation and performance.

Keywords: Green Knowledge Management, Green, Knowledge Management

Introduction

In the contemporary business landscape, the imperative for organizations to adopt sustainable practices has never been more pronounced. The increasing awareness of environmental issues, coupled with stringent regulatory frameworks and a growing consumer preference for eco-friendly products, necessitates a paradigm shift towards green innovation. Green innovation refers to the development and implementation of new products, processes, and services that significantly reduce environmental impacts. Central to achieving green innovation is the effective management of green knowledge, which encompasses the acquisition, dissemination, and application of environmental knowledge within an organization. This concept, known as Green Knowledge Management (GKM), serves as a critical driver in fostering organizational green innovation.

Green Knowledge Management is an extension of traditional Knowledge Management (KM) principles, emphasizing the integration of environmental knowledge into organizational processes. It involves the systematic handling of knowledge about environmental practices, technologies, and regulations, ensuring that this knowledge is effectively utilized to drive sustainable innovation. The role of GKM in driving organizational green innovation can be understood through several key mechanisms: enhancing environmental awareness, facilitating the diffusion of green technologies, and fostering a culture of sustainability.

Firstly, GKM enhances environmental awareness among employees and stakeholders. By systematically capturing and disseminating information related to environmental issues and sustainable practices, organizations can build a knowledgeable workforce that is conscious of the ecological impacts of their actions. This heightened awareness is crucial for the identification of opportunities for green innovation, as it empowers employees to contribute ideas and solutions that align with the organization's sustainability goals. For instance, training programs, workshops, and internal communication channels can be employed to educate employees about the latest environmental regulations, green technologies, and sustainable practices. As a result, employees become more adept at recognizing areas where green innovation can be applied, thereby driving the organization toward more sustainable operations (Goh, 2002; Jabbour & de Sousa Jabbour, 2016).

Secondly, GKM facilitates the diffusion of green technologies within the organization. The implementation of green technologies often requires significant knowledge transfer, as these technologies may be complex and require specialized expertise. GKM provides a structured approach to capturing and sharing this specialized knowledge, ensuring that all relevant stakeholders are informed about the capabilities and applications of new green technologies. This can be achieved through knowledge repositories, best practice databases, and collaborative platforms that allow for the seamless exchange of information. By leveraging these knowledge management tools, organizations can accelerate the adoption of green technologies, thereby enhancing their capacity for green innovation (Chen et al., 2006; Sahoo et al., 2023).

Thirdly, fostering a culture of sustainability is a critical aspect of GKM that drives green innovation. Organizational culture plays a significant role in shaping employees' attitudes and

behaviors toward sustainability. By embedding green knowledge into the organizational culture, companies can create an environment where sustainability is a core value. This can be achieved by recognizing and rewarding environmentally friendly practices, encouraging cross-functional collaboration on green projects, and integrating sustainability metrics into performance evaluations. A strong culture of sustainability motivates employees to actively seek out and implement innovative solutions that reduce environmental impact, thereby driving green innovation (Horbach et al., 2012; Lozano, 2015).

Green Knowledge Management is a pivotal mechanism for driving organizational green innovation. By enhancing environmental awareness, facilitating the diffusion of green technologies, and fostering a culture of sustainability, GKM enables organizations to effectively integrate environmental considerations into their innovation processes. As the global business environment continues to evolve towards greater sustainability, the role of GKM in promoting green innovation will become increasingly vital. Organizations that proactively manage and leverage their environmental knowledge will be better positioned to achieve sustainable competitive advantage and contribute to the broader goal of environmental sustainability. Finally this session.

Literature Review

Green Knowledge Management (GKM) refers to the systematic handling of knowledge related to environmental practices and technologies within organizations. It integrates traditional Knowledge Management (KM) principles with a focus on sustainability. Green Innovation, on the other hand, involves the development and implementation of new products, processes, and services that significantly reduce environmental impact (Chen et al., 2006). The synergy between GKM and green innovation is crucial for achieving sustainable development and gaining a competitive edge in the market.

The theoretical underpinnings of GKM are rooted in the Resource-Based View (RBV) of the firm and the Knowledge-Based View (KBV). The RBV suggests that organizations can achieve competitive advantage by leveraging their unique resources, including environmental knowledge (Barney, 1991). The KBV extends this notion by emphasizing the role of knowledge as a critical resource for innovation and sustainability (Grant, 1996). GKM, therefore, serves as a strategic approach to managing and utilizing environmental knowledge to foster green innovation.

Several mechanisms are employed in GKM to drive green innovation. These include knowledge acquisition, dissemination, and application. Knowledge acquisition involves capturing relevant environmental information from various sources, such as research institutions, industry experts, and regulatory bodies (Nonaka, 1994). Dissemination refers to the sharing of this knowledge within the organization through training programs, workshops, and internal communication channels (Goh, 2002). Application entails the practical use of environmental knowledge to develop and implement green technologies and practices.

GKM enhances environmental awareness among employees, which is crucial for identifying opportunities for green innovation. Organizations can build a knowledgeable workforce by systematically capturing and disseminating information related to environmental issues and sustainable practices (Jabbour & de Sousa Jabbour, 2016). This awareness empowers

employees to contribute ideas and solutions that align with the organization's sustainability goals (Hart, 1995).

The diffusion of green technologies within an organization is often facilitated by effective GKM. Knowledge repositories, best practice databases, and collaborative platforms enable the seamless exchange of information, ensuring that stakeholders are well-informed about new green technologies (Kruesi et al., 2020). This knowledge transfer accelerates the adoption of green technologies, thereby enhancing the organization's capacity for green innovation (Rennings, 2000).

A strong culture of sustainability, driven by GKM, motivates employees to actively seek out and implement innovative solutions that reduce environmental impact. Recognizing and rewarding environmentally friendly practices, encouraging cross-functional collaboration on green projects, and integrating sustainability metrics into performance evaluations are some of the ways organizations can embed green knowledge into their culture (Lozano, 2015).

Empirical studies have demonstrated the positive impact of GKM on green innovation. For example, Chen et al. (2006) found that firms with effective GKM practices were more likely to develop eco-friendly products and processes. Similarly, a study by Horbach et al. (2012) indicated that GKM significantly influenced the adoption of green technologies in manufacturing firms. These findings underscore the importance of GKM in driving sustainable innovation.

Despite its benefits, GKM faces several challenges, including resistance to change, lack of expertise, and insufficient integration with existing KM practices (Jabbour & de Sousa Jabbour, 2016). Future research should focus on addressing these challenges and exploring the role of emerging technologies, such as artificial intelligence and big data, in enhancing GKM (Porter & van der Linde, 1995).

Green Knowledge Management plays a pivotal role in driving organizational green innovation. By enhancing environmental awareness, facilitating the diffusion of green technologies, and fostering culture of sustainability, GKM enables organizations to effectively integrate environmental considerations into their innovation processes. As the global business environment continues to evolve towards greater sustainability, the importance of GKM in promoting green innovation will only grow.

Methodology
Identification
In choosing several appropriate papers for this report, the systematic review process consists of three main phases. The first step is keyword recognition and the quest for linked, similar terms based on the thesaurus, dictionaries, encyclopedia, and previous studies. Accordingly, after all the relevant keywords were decided, search strings on Scopus and WOS (see Table 1) database have been created. In the first step of the systematic review process, the present research work successfully retrieved (518) papers from both databases.

Table 1
The Search String

Scopus	TITLE-ABS-KEY (("green" AND "knowledge management" AND "sustain*")) AND (LIMIT-TO (SUBJAREA , "BUSI")) AND (LIMIT-TO (PUBYEAR , 2022) OR LIMIT-TO (PUBYEAR , 2023) OR LIMIT-TO (PUBYEAR , 2024)) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (N';[-0000000000009SRCTYPE , "j")) AND (LIMIT-TO (PUBSTAGE , "final")) Date of access : June 2024
WOS	"green" (Topic) and "knowledge management" (Topic) and sustain* (Topic) and 2024 or 2023 or 2022 (Publication Years) and Open Access and Article (Document Types) and Management or Business (Web of Science Categories) and English (Languages) and Business Economics or Information Science Library Science (Research Areas) Publications Date of access: June 2024

Screening
During the screening phase, a collection of potentially relevant research materials is analyzed to determine if their content aligns with the predefined research questions. This phase involves selecting items that focus on green knowledge management. At this stage, duplicate articles are removed from the collection. Initially, 418 publications were excluded, and 50 papers were reviewed using specific inclusion and exclusion criteria detailed in Table 2. The primary sources considered were research papers, as they provide direct practical insights. Other sources, such as reviews, meta-syntheses, meta-analyses, books, book series, chapters, and conference proceedings from recent studies, were also included. The review was limited to works published in English from 2022 to 2024. Notably, no publications were excluded based on duplication criteria.

Table 2
The Selection Criterion is Searching

Criterion	Inclusion	Exclusion
Language	English	Non-English
Timeline / Years	2022 – 2024	< 2022
Literature type	Journal (Article)	Conference, Book, Review
Publication Stage	Final	In Press
Subject Area	Business, Management & Accounting	Besides Business, Management & Accounting
Source type	Journal	Besides Journal

Eligibility
Once all inclusion and exclusion criteria are met, the final review sample is established. A comprehensive list of the included research items is essential, as it forms the basis of the study results, which are otherwise unknown to the readers. This eligibility phase consists of 47 articles. During this phase, all article titles and substantial content are meticulously reviewed to ensure alignment with the study's research objectives. Consequently, 13 publications were excluded because their titles and abstracts did not sufficiently relate to the

empirical focus of the study. Ultimately, 34 papers remained eligible for detailed evaluation, as illustrated in Figure 2.
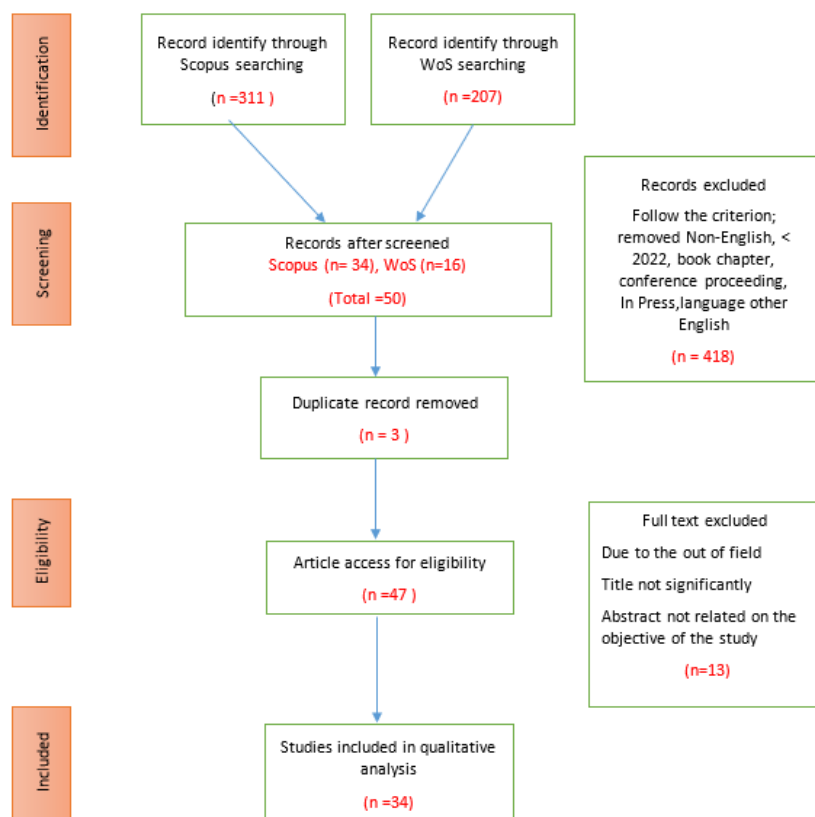

Figure 1: Flow diagram of the proposed searching study (Mustafa et al., 2022)

Data Abstraction & Analysis
In this investigation, an integrative analysis was utilized as a critical assessment strategy to review and synthesize various research methodologies, with a primary focus on quantitative approaches. This rigorous examination aimed to delineate pertinent topics and subtopics within the scope of data security frameworks. The initial phase of theme development involved systematic data collection, as depicted in Figure 2. During this stage, the authors thoroughly analyzed a corpus of 34 scholarly publications, identifying assertions and content directly relevant to the research focus of the current study.

Following this, a comprehensive review of significant contemporary studies on data security frameworks was conducted. This review entailed a detailed examination of the methodologies employed and the results obtained across these studies, ensuring a holistic understanding of the field. Subsequently, the principal investigator collaborated with co-authors to formulate themes grounded in the empirical evidence collected. Throughout the analytical process, a detailed log was maintained to document various analytical perspectives, queries, and insights crucial for interpreting the data, ensuring the rigor and transparency of the analytical process.

Upon synthesizing the initial findings, the research team meticulously compared the results to identify any inconsistencies in the thematic construction. When discrepancies among the themes emerged, the authors engaged in discussions to resolve these differences and refine

the themes, ensuring their coherence and alignment with the overarching research objectives. To ensure the validity of the themes, two experts reviewed the examination, one specializing in knowledge management and the other in sustainable performance. This expert review phase helped ensure each sub-theme's clarity, importance, and adequacy by establishing domain validity. Adjustments based on expert feedback and comments were made at the author's discretion. This careful validation and refinement process underscores the thoroughness of the research methodology and the reliability of the study's conclusions in contributing to the field of data security. The questions are as follows below:

1) How do the elements of green knowledge management (acquisition, storage, application, and creation) individually and collectively impact business sustainability in the mining industry?
2) What is the relationship between green knowledge management practices and overall organizational performance, particularly in terms of sustainability?
3) How does green knowledge management enhance organizational learning capabilities and contribute to sustainable performance?

Result and Finding

THEME 1: Green Knowledge Management and Green Innovation:
The application of green knowledge management and green innovation is an important aspect of achieving corporate sustainable development. A study showed that four elements of green knowledge management, namely green knowledge acquisition, green knowledge storage, green knowledge application, and green knowledge creation, have a direct impact on business sustainability in the mining industry in South Kalimantan, Indonesia. However, collectivist cultural norms hinder the direct impact of green knowledge sharing on corporate sustainable development, which suggests the need for additional measures to encourage knowledge sharing in collectivist cultures (Widyanti et al., 2023). In addition, Liyanage et al. (2022) emphasized the need for conventional universities and policymakers to transform their universities into sustainable institutions through the reconfiguration of the four pillars of green soft infrastructure. The analysis of this study using data from 89 university stakeholders shows that all stakeholders consider the need to reconfigure these pillars to produce green knowledge and innovation (Liyanage et al., 2022).

A study by Coughlan et al. (2023) also examined how multi-stakeholder collaboration in green process innovation research initiatives can produce actionable research-based contributions. This study reflects the collaborative research process and how researchers can play different roles in enabling broad and deep interaction, disciplinary integration, and the production of diverse types of knowledge. In the context of green technology management, Orlando et al. (2022) found that government investment in green innovation is more effective than company investment because governments are more willing to take risks in radical innovation. Their analysis using data from Eurostat shows that the culture of countries that show indulgence has a positive effect on the green innovation index. Additionally, Pattinson et al. (2023) proposed a multi-value model to build a green innovation network that supports a firm's green transition by identifying critical success factors such as technological diversity, knowledge-sharing mechanisms, open innovation strategies, and overcoming resistance to change. Finally, Yin and Yu (2022) examines how the integration of digital technology in green innovation and production processes can improve digital green innovation performance and

enterprise competitiveness. Moreover, the researcher found that the creation of digital green knowledge that is exploited and used has an inverted U-relationship with the performance of digital green innovation. In contrast, the search for digital green knowledge from supply chains and markets has a positive effect on the creation of digital green knowledge that is exploited.

THEME 2: Green Knowledge Management and Organizational Performance:
Green Knowledge Management (GKM) plays a vital role in enhancing organizational performance, particularly in sustainability. GKM involves the acquisition, storage, sharing, and application of green knowledge that helps organizations achieve better green performance. This analysis examines various aspects of GKM and its impact on organizational performance by analyzing several published studies.

Table 3
Comprehensive analysis in tabular form

No	Author's Name and Year	Objectives	Methodologies	Findings	Conclusion & Future Research
1	Baquero (2024)	Investigate the mediating role of ambidextrous green innovation and the moderating effects of resource orchestration capability in the relationship between green entrepreneurial orientation and green performance.	Hierarchical linear regression, moderated mediation approach.	Green entrepreneurial orientation influences green performance through both exploratory and exploitative green innovation. Resource orchestration capability strengthens the relationship between green entrepreneurial orientation and exploitative green innovation, as well as between exploitative green innovation and green performance.	Firms should adopt proactive environmental strategies and innovative approaches to achieve sustainable green performance. Future research could explore factors influencing green innovation in various industries.
2	Bag (2024)	Examine the effect of resources (tangible, human skills, and intangible resources) on sustainable net zero economy implementation and its impact on financial, environmental,	Variance-based structural equation modeling.	Tangible resources, human skills, and intangible resources positively influence sustainable net zero economy adoption. Intangible resources have a stronger influence. Net zero economy adoption significantly enhances financial, environmental, and	Managers should recognize the importance of resource management and utilize Industry 4.0-based digital technologies for effective knowledge management. Future research could focus on

		and social performance among SMEs.		social performance, with a stronger impact on social performance.	the application of digital technologies in green knowledge management.
3	Vrabcova et al. (2022)	Identify strategic trends implemented by Czech organizations to ensure sustainable competitive advantage.	Factor analysis, principal component method, varimax method.	Six key factors were identified: integrated management system, employee development, CSR reporting, organizational structure for innovation development, succession planning, and knowledge continuity.	Organizations need to consider economic, socio-cultural, and environmental dimensions to achieve sustainable competitiveness. Future research could explore the application of sustainability strategies in various industrial sectors.
4	Cegarra-Navarro et al. (2023)	Examine the effect of green skills on organizational reputation through technology assimilation and avoiding embarrassment.	Conceptual model, data analyzed using SmartPLS 3.	Technology assimilation supported by green skills reduces stress, anxiety, and fears caused by embarrassment and supports organizational reputation.	Managers should encourage green skills and technology assimilation to enhance organizational reputation. Future research could explore the impact of technology assimilation in various industrial contexts.
5	Shih (2024)	Examine the effects of prospective corporate social responsibility (CSR) on firm performance, mediated by innovation.	Structural equation modeling.	Internal, external, and environmental/social CSR benefits firms' innovation performance at different levels. CSR initiatives impact firm performance, mediated by innovation.	Knowledge management related to CSR generates innovation and sustainability. Future research could focus on the application of CSR in different business contexts.
6	Cheng et al. (2023)	Study the determinants affecting	Online questionnaire survey,	Big data analytics capability mediates the positive	Awareness of critical factors contributing to

| | sustainability performance in manufacturing companies and the impact of business intelligence and big data analytics capability, considering the moderating role of green knowledge management. | structural equation modeling using SmartPLS 4. | relationship between business intelligence and sustainability performance. Green knowledge management does not moderate this relationship. | big data analytics capability and its outcomes on sustainability performance is essential for manufacturing companies. Future research could explore the role of green knowledge management in various industries. |

Table 4

Comprehensive analysis in tabular form

No	Author's Name and Year	Objectives	Methodologies	Findings	Conclusion & Future Research
1	de Pablos (2024)	To understand how intellectual capital, knowledge management, and organizational learning contribute to competitiveness in the digital and green transition.	Editorial analysis.	Intellectual capital and knowledge management are essential for achieving sustained competitive advantage in volatile environments.	Future research should focus on the integration of intellectual capital and knowledge management practices to support digital and green transitions in organizations.
2	Rasool et al. (2023)	To examine the impact of reverse logistics adoption on firms' digitalization and collaboration activities.	Longitudinal survey, negative binomial regression analyses.	Reverse logistics adoption facilitates digitalization and inter-organizational collaboration, positioning firms better for sustainable supply chains.	Future research could explore the long-term impacts of reverse logistics on digital transformation and collaborative practices in various industries.
3	Paulraj et al. (2023)	To investigate the role of knowledge acquisition from suppliers in product stewardship and	Hierarchical ordinary least squares regression.	Knowledge acquisition has a double-edged effect; it does not directly impact product stewardship but	Further studies should explore ways to optimize knowledge acquisition processes and mitigate negative

		environmental performance.		positively moderates the relationship between product stewardship and environmental performance when knowledge exploitation and supplier opportunism are managed.	impacts in different contexts of product stewardship.
4	Shafait and Huang (2024)	To examine the impact of sustainable leadership on green knowledge sharing and learning and its effect on green innovation and organizational performance in HEIs.	Quantitative cross-sectional study, PLS-SEM analysis.	Sustainable leadership positively affects green learning outcomes; green knowledge sharing does not mediate between leadership and learning outcomes. Green learning outcomes positively influence green innovation and organizational performance.	Future research should investigate the role of sustainable leadership in other sectors and explore additional mediators and moderators in the relationship between leadership and organizational learning outcomes.

THEME 3 : Green Knowledge Management and Organizational Learning Capabilities:
Green Knowledge Management (GKM) and organizational learning capabilities are increasingly recognized as critical elements for enhancing sustainability and competitive advantage in today's dynamic business environment. GKM involves the systematic management of green knowledge, encompassing its acquisition, storage, sharing, and application, which collectively drive green innovation and improve organizational learning capabilities. This analysis explores various studies to understand how GKM contributes to organizational learning and sustainable performance.

Discussion and Conclusion
The application of Green Knowledge Management (GKM) and Green Innovation (GI) is crucial for achieving corporate sustainable development. (Widyanti et al., 2024b) highlighted that green knowledge acquisition, storage, application, and creation positively impact business sustainability in South Kalimantan's mining industry, though collectivist norms hinder knowledge sharing. Liyanage et al. (2022) stressed reconfiguring university infrastructure to produce green knowledge and innovation. Coughlan et al. (2023) found that multi-stakeholder collaboration fosters diverse knowledge production in green process innovation. Orlando et al. (2022) revealed that government investment is more effective in green innovation than company investment. Pattinson et al. (2023) identified success factors for

building green innovation networks. Yin and Yu (2022) showed that integrating digital technology enhances digital green innovation performance.

Green Knowledge Management (GKM) significantly enhances organizational sustainability. Baquero (2024) found that green entrepreneurial orientation improves green performance via ambidextrous green innovation, strengthened by resource orchestration. Bag (2024) demonstrated that tangible, human, and intangible resources positively influence net zero economy adoption, enhancing financial, environmental, and social performance. Strategic trends such as integrated management systems and CSR reporting are key to sustainable competitiveness. Cegarra-Navarro et al. (2023) showed technology assimilation and green skills improve organizational reputation by reducing stress and anxiety. Shih (2024) highlighted CSR's role in boosting innovation and firm performance. Cheng et al. (2023) emphasized that big data analytics, supported by business intelligence, enhances sustainability performance, though GKM does not moderate this relationship. Future research should explore GKM's role across various industries.

References

Bag, S. (2024). From resources to sustainability: A practice-based view of net zero economy implementation in small and medium business-to-business firms. *Benchmarking: An International Journal*, *31*(6), 1876–1894. https://doi.org/10.1108/BIJ-01-2023-0056

Abdullah, R.S., Hakimi, H., & Kamalrudin, M. (2024). Software Security Readiness Index for Remote Working Employee in Public Organization: Preliminary Study. International Journal of Academic Research in Business and Social Sciences.

Baquero, A. (2024). Linking green entrepreneurial orientation and ambidextrous green innovation to stimulate green performance: a moderated mediation approach. *Business Process Management Journal*, *30*(8), 71–98. https://doi.org/10.1108/BPMJ-09-2023-0703

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Cegarra-Navarro, J. G., Kassaneh, T. C., Caro, E. M., Martínez, A. M., & Bolisani, E. (2023). Technology assimilation and embarrassment in SMEs: The mediating effect on the relationship of green skills and organizational reputation. *IEEE Transactions on Engineering Management*, *70*(12), 4278–4286. https://doi.org/10.1109/TEM.2021.3112615

Chen, Y. S., Lai, S. B., & Wen, C. T. (2006). The influence of green innovation performance on corporate advantage in Taiwan. *Journal of Business Ethics*, *67*(4), 331–339. https://doi.org/10.1007/s10551-006-9025-5

Cheng, J., Mahinder Singh, H. S., Zhang, Y. C., & Wang, S. Y. (2023). The impact of business intelligence, big data analytics capability, and green knowledge management on sustainability performance. *Journal of Cleaner Production*, *429*, 139410. https://doi.org/10.1016/j.jclepro.2023.139410

Coughlan, P., Bellini, R., Bello-Dambatta, A., Dallison, R., Dreyer-Gibney, K., Gallagher, J., Harris, I., McNabola, A., Mitrovic, D., Murali, M., Novara, D., Patil, S., Rigby, A., Ritsos, P., Schestak, I., Singh, A., Walker, N., & Williams, P. (2023). Researching green process innovation across borders and boundaries through collaborative inquiry. *The Journal of Applied Behavioral Science*, *59*(4), 556–584. https://doi.org/10.1177/00218863231194655

Pablos, P. O. (2024). Editorial: Human capital, leadership and creativity: understanding how intellectual capital reinforces competitiveness. *International Journal of Learning and Intellectual Capital*, *21*(1), 1–5. https://doi.org/10.1504/IJLIC.2024.136644

Goh, S. C. (2002). Managing effective knowledge transfer: An integrative framework and some practice implications. *Journal of Knowledge Management*, *6*(1), 23–30. https://doi.org/10.1108/13673270210417664

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, *17*(S2), 109–122. https://doi.org/10.1002/smj.4250171110

Hakimi, H., Kamalrudin, M., & Abdullah, R. S. (2023). Software Security Readiness Model For Remote Working In Malaysian Public Sectors: Conceptual Framework. Journal Of Theoretical And Applied Information Technology, 101(8).

Hart, S. L. (1995). A natural-resource-based view of the firm. *Academy of Management Review*, *20*(4), 986–1014. https://doi.org/10.5465/amr.1995.9512280033

Horbach, J., Rammer, C., & Rennings, K. (2012). Determinants of eco-innovations by type of environmental impact — The role of regulatory push/pull, technology push and market pull. *Ecological Economics*, *78*, 112–122. https://doi.org/10.1016/j.ecolecon.2012.04.005

Ismail, N. F., Akmal, S., Mohd, Massila Kamalrudin, Amirul Affiq, Hakimi, H., & Azmi, S. S. (2024). Agile Decision-Making as an Alternative for Decision Making's Complexities in Information Management to Flood Rescue and Recovery: A Systematic Literature Review. Journal of Advanced Research in Applied Sciences and Engineering Technology, 89–105. https://doi.org/10.37934/araset.58.1.89105

Jabbour, C. J. C., & de Sousa Jabbour, A. B. L. (2016). Green human resource management and green supply chain management: Linking two emerging agendas. *Journal of Cleaner Production*, *112*, 1824–1833. https://doi.org/10.1016/j.jclepro.2015.01.052

Kruesi, L., Burstein, F., & Tanner, K. (2020). A knowledge management system framework for an open biomedical repository: Communities, collaboration and corroboration. *Journal of Knowledge Management*, *24*(10), 2553–2572. https://doi.org/10.1108/JKM-05-2020-0370

Liyanage, S. I. H., Netswera, F., Meyer, J., & Botha, C. (2022). Four pillars of the green university soft infrastructure. *International Journal of Knowledge Management*, *18*(1), 1–16. https://doi.org/10.4018/IJKM.305225

Lozano, R. (2015). A holistic perspective on corporate sustainability drivers. *Corporate Social Responsibility and Environmental Management*, *22*(1), 32–44. https://doi.org/10.1002/csr.1325

Mustafa, W. A., Halim, A., Nasrudin, M. W., & Ab Rahman, K. S. (2022). Cervical cancer situation in Malaysia: A systematic literature review. *BIOCELL*, *46*(2), 367–381. https://doi.org/10.32604/biocell.2022.016814

Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, *5*(1), 14–37. https://doi.org/10.1287/orsc.5.1.14

Orlando, B., Ballestra, L. V., Scuotto, V., Pironti, M., & Giudice, M. Del. (2022). The impact of R&D investments on eco-innovation: A cross-cultural perspective of green technology management. *IEEE Transactions on Engineering Management*, *69*(5), 2275–2284. https://doi.org/10.1109/TEM.2020.3005525

Pattinson, S., Damij, N., El Maalouf, N., Bazi, S., Elsahn, Z., Hilliard, R., & Cunningham, J. A. (2023). Building green innovation networks for people, planet, and profit: A multi-level,

multi-value approach. *Industrial Marketing Management*, *115*, 408–420. https://doi.org/10.1016/j.indmarman.2023.10.016

Paulraj, A., Rajkumar, C., Blome, C., & Faruquee, M. (2023). The rugged landscape of product stewardship: Does it invoke the double-edged effect of knowledge acquisition? *Supply Chain Management: An International Journal*, *28*(5), 874–893. https://doi.org/10.1108/SCM-11-2021-0501

Porter, M. E., & van der Linde, C. (1995). Toward a new conception of the environment-competitiveness relationship. *Journal of Economic Perspectives*, *9*(4), 97–118. https://doi.org/10.1257/jep.9.4.97

Rasool, F., Greco, M., Morales-Alonso, G., & Carrasco-Gallego, R. (2023). What is next? The effect of reverse logistics adoption on digitalization and inter-organizational collaboration. *International Journal of Physical Distribution & Logistics Management*, *53*(5/6), 563–588. https://doi.org/10.1108/IJPDLM-06-2022-0173

Rennings, K. (2000). Redefining innovation — eco-innovation research and the contribution from ecological economics. *Ecological Economics*, *32*(2), 319–332. https://doi.org/10.1016/S0921-8009(99)00112-3

Sahoo, S., Kumar, A., & Upadhyay, A. (2023). How do green knowledge management and green technology innovation impact corporate environmental performance? Understanding the role of green knowledge acquisition. *Business Strategy and the Environment*, *32*(1), 551–569. https://doi.org/10.1002/bse.3160

Shafait, Z., & Huang, J. (2024). Examining the impact of sustainable leadership on green knowledge sharing and green learning: Understanding the roles of green innovation and green organisational performance. *Journal of Cleaner Production*, *457*, 142402. https://doi.org/10.1016/j.jclepro.2024.142402

Shih, T. Y. (2024). Exploring the effects of prospective corporate social responsibility on firm performance: The mediating role of innovation. Technology *Analysis & Strategic Management*, *36*(2), 293–305. https://doi.org/10.1080/09537325.2022.2033201

Veenoth, A., Shankarvelu, L., Hakimi, H., Marlia, Z., & Octaviani, D. (2023). Food Donation Application to Improve the Distribution and Verification Process Within Selangor: Feedback. Journal of Applied Technology and Innovation (e-ISSN: 2600-7304), 7(3), 7.

Vrabcova, P., Urbancova, H., & Hudakova, M. (2022). Strategic trends of organizations in the context of new perspectives of sustainable competitiveness. *Journal of Competitiveness*, *14*(2), 174–193. https://doi.org/10.7441/joc.2022.02.10

Widyanti, R., Rajiani, I., & Basuki, B. (2023). Green knowledge management to achieve corporate sustainable development. *Journal of Infrastructure, Policy and Development*, *8*(2), 2844. https://doi.org/10.24294/jipd.v8i2.2844

Yin, S., & Yu, Y. (2022). An adoption-implementation framework of digital green knowledge to improve the performance of digital green innovation practices for industry 5.0. *Journal of Cleaner Production*, *363*, 132608. https://doi.org/10.1016/j.jclepro.2022.132608

Junaidah, Y., & Annette, A., &Endang, S., & Siti, P., & Sabariah, N., & Iman, J. N., & Mohd, H., & Halimaton, H. (2025). The psychosocial factors of blood donation during the pandemic: Strategies for sustainable blood supply. Journal of Infrastructure, Policy and Development. 9. 9677. 10.24294/jipd9677.