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Systematic Literature Review on the Impact of Green Manufacturing Implementation on Corporate Sustainability Performance

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Abstract

This literature review explores the impact of green manufacturing on corporate sustainability performance with green innovation as a mediator. Green manufacturing, characterized by environmentally friendly practices in production processes, has gained significant attention due to its potential to enhance sustainability outcomes. Corporate sustainability performance, encompassing economic, environmental, and social dimensions, is crucial for long-term organizational success and stakeholder value creation. Green innovation, including technological advancements and strategic initiatives towards sustainability, plays a vital role in driving positive environmental impacts and competitive advantages. Understanding the interplay between these factors is essential for firms seeking to integrate sustainable practices into their operations and achieve superior performance in a rapidly evolving global landscape.

Keywords

Green Manufacturing, Green Innovation, Corporate Sustainability Performance

1. Introduction

Amid increasing awareness of climate change, environmental degradation, and social inequality, companies are required not only to pursue financial profits but also to contribute to environmental sustainability and societal well-being. Corporate Sustainability Performance (CSP) reflects long-term competitive advantage as evidenced by the financial returns achieved by companies considering their environmental and social impacts without compromising stakeholder needs (Huo et al., 2019). By applying these principles, companies can create long-term value that benefits not only shareholders but also a wide range of other stakeholders. In this context, green manufacturing and green innovation are two key elements that play a crucial role in supporting and strengthening corporate sustainability.

Green manufacturing refers to the adoption of production practices that are resource-efficient and environmentally friendly. This includes the use of recyclable raw materials, reduction of waste and emissions, and optimization of energy usage. Its primary goal is to minimize the negative environmental impact of the production process, thereby supporting long-term sustainability. On the other hand, green innovation involves the development of new products, services, and technologies that are environmentally friendly. This can include innovations in product design that minimize material usage, development of technologies that reduce energy consumption, or creation of solutions that address environmental challenges such as pollution and climate change. Furthermore, green innovation significantly helps companies reduce negative environmental impacts and generate additional revenue (Fernando et al., 2019; Zhu et al., 2012).

In this paper, we conduct a systematic review of the literature discussing the relationship between the implementation of green manufacturing and corporate sustainability performance. We explore the contributions of green manufacturing practices to the environmental, social, and economic performance of companies. Additionally, we examine the role of green innovation in linking green manufacturing practices with overall sustainability performance. How does the implementation of green manufacturing affect a company's sustainability performance, with green innovation acting as a mediator? Do green manufacturing practices significantly contribute to the environmental, social, and economic performance of companies?

2. Literature Review

2.1. Green Manufacturing Implementation

Since the 1990s, green manufacturing practices, known as GMPs, have experienced rapid growth. Increased demand from various stakeholders concerned with environmental sustainability has elevated GMP as a critical subject (Sezen & Cankaya, 2013). The drive behind this growth lies in the need to reduce adverse environmental impacts while enhancing industry productivity and efficiency. Although academics may define GMP differently, it generally refers to the adoption of fast, reliable, and energy-efficient manufacturing techniques and tools aimed at reducing waste and improving productivity (Nimawat & Namdev, 2012). GMP encompasses strategies such as waste reduction, efficient production methods, and manufacturing systems that utilize inputs generating minimal pollution (Ghazilla et al., 2015). The ultimate objective of implementing GMP is to achieve sustainability in industrial production.

Manufacturing firms that adopt green practices may attract more investors, as suggested by Dubey et al. (2015). Furthermore, research indicates that companies successfully implementing GMP can increase their revenues and enhance their Environmental Performance (EP) (Yang et al., 2013; Laari et al., 2016; Roy &

Khastagir, 2016). According to Sezen & Cankaya (2013), Green Manufacturing Practice significantly and positively impacts Sustainability Performance, particularly in terms of Environmental Performance (EnP) and overall Sustainability Performance (SP). Enhancements in sustainability performance reflect a company's ethical approach towards its stakeholders. Generally, adopting environmentally responsible methods like green manufacturing processes leads to improvements in both social and environmental performance.

2.2. Green Innovation

Green innovation (GI) emerged in the late 1990s as a concept focused on transitioning from traditional production methods to creating new products and processes under environmental regulations. This approach, discussed by Cleff & Rennings (1999) and later by the OECD (2009), aims to ensure sustainable industrial development by balancing economic, environmental, and social factors. The primary goal of GI is to minimize negative environmental impacts (Chen & Chang, 2013). The theory of green innovation (GI) merges environmental economics, which focuses on regulatory frameworks, with innovation economics, which highlights early-stage entrepreneurship and new technologies. Additionally, marketing factors that influence business growth and expansion are considered within this framework (Cleff & Rennings, 1999). According to Huang & Li (201), innovation that leads to a decrease in environmental impact, regardless of whether it is intentional or not, is the broad definition of GI.

This term is often used interchangeably with terms such as ecological innovation, eco-friendly innovation, environmental innovation, and sustainable innovation (Shahzad, 2020; Li, 2022). In general, Green Innovation (GI) Encompasses Green Product Innovation (GPRI) and Green Process Innovation (GPI), which involve developing new green products or modifying existing product designs to minimize their negative environmental impact (Huang and Li, 2017). Products that minimise adverse environmental effects over the course of their whole life cycle are referred to as green production innovation, or GPI (Huang & Chen, 2021). According to Kraus et al. (2020) and Mohsin et al. (2022), green innovation (GI) practices generally help to boost consumer loyalty, improve a company's brand identity, create equal opportunities, ensure safety, and encourage ethical behaviour. By focusing on GI that utilizes eco-friendly manufacturing practices, companies can achieve higher levels of efficiency and reduce the number of resources used, ultimately reducing total costs. Green Innovation (GI) is all about using innovation to tackle environmental issues.

1. Green Process Innovation: This involves businesses updating their production methods to be more eco-efficient. It includes adopting the latest technologies for waste recycling, energy conservation, pollution prevention, green product design, and environmental management (Cleff & Rennings, 1999; Chen et al., 2006).
2. Green Product Innovation: This focuses on a company's commitment to creating new products that reduce environmental impact throughout the supply chain (Cleff & Rennings, 1999; Chen et al., 2006).
3. Innovation in Green Supply Chain Management: This refers to a company's ability to manage costs, allocate resources, and operate efficiently while prioritizing environmental sustainability (Chiou et al., 2011).

Corporate Sustainability Performance (CSP) evaluates how well a company integrates CSR practices like resource conservation, environmental risk management, community engagement, sustainable consumption promotion, and corporate governance improvement. It aims for economic, environmental, and social balance by emphasizing efficient resource use, minimal environmental impact, and positive societal contributions (Dyllick & Hockerts, 2002). CSP is measured through

indicators such as energy efficiency, waste management, social responsibility, and transparency, and research shows that companies focusing on sustainability tend to achieve better financial performance, higher customer loyalty, and improved public reputation (Dyllick & Hockerts, 2002).

2.3. Corporate Green Sustainability

Corporate business sustainability has become an increasingly important topic in management and business literature. With increasing pressure from governments, consumers and other stakeholders, companies are required to adopt more sustainable business practices. One prominent approach is the implementation of green innovation and green manufacturing, which is expected to improve the sustainability performance of the company. Corporate Sustainability Performance is seen as achievable when a company minimizes its environmental impact and prioritizes social, environmental, financial, and economic aspects for success. Shareholders may find this approach beneficial, as noted by Boiral & Paillé (2012) and Daily et al. (2009). According to Taha et al. (2023), corporate sustainability performance serves as a reliable predictor of various organizational outcomes, encompassing financial, social, and environmental dimensions (Indriastuti & Chariri, 2021). Similarly, Le et al. (2022) suggest that Corporate Sustainability Performance involves diverse performance indicators that encompass both financial and non-financial factors.

Corporate Sustainability Performance (CSP) assesses how well a company integrates CSR practices into its operations. Researchers and practitioners are increasingly interested in evaluating a company's overall sustainability, including efforts like resource conservation, environmental risk management, community engagement, promoting sustainable consumption, and improving corporate governance. CSP involves achieving economic, environmental, and social balance, emphasizing efficient resource use, minimal environmental impact, and positive societal contributions (Dyllick & Hockerts, 2002). It encompasses indicators such as energy efficiency, waste management, social responsibility, and transparency. Studies indicate that sustainable-focused companies often see improved financial performance, increased customer loyalty, and enhanced public reputation (Dyllick & Hockerts, 2002).

Corporate Sustainability Performance (CSP) is crucial in modern business strategies, reflecting a company's commitment to corporate social responsibility. It serves as a key mediator between green innovation and green manufacturing. Recent literature emphasizes the global importance of CSP in fostering a sustainable future, focusing on ecological efficiency and social benefits as integral to corporate improvement. This review explores how environmental, social, and governance practices influence financial performance, particularly through green innovation. Studies demonstrate that Green Manufacturing Practices (GMP) positively correlate with CSP, with Green Innovation (GI) playing a pivotal mediating role. Market dynamics further enhance the impact of GMP on CSP through GI, underscoring the necessity of adaptive market strategies for sustainable performance.

Previous research shows that green innovation and green manufacturing positively impact corporate sustainability. Green innovation enables the creation of environmentally friendly products, enhancing the company's reputation among eco-conscious consumers (Porter & van der Linde, 1995). Meanwhile, green manufacturing reduces costs and improves efficiency, leading to better financial performance. Corporate sustainability acts as a mediator here: when companies adopt green practices, their sustainability performance improves, benefiting overall financial and operational outcomes (Zhu & Sarkis, 2004). In essence, corporate sustainability acts as a bridge linking green practices to enhanced company performance. Green innovation and green manufacturing are crucial for improving business sustainability, with corporate sustainability playing a pivotal role in

ensuring these practices meet regulatory and stakeholder expectations while driving competitive advantage. Future research should delve into the specific mechanisms through which green practices influence corporate sustainability, exploring factors that strengthen or weaken this relationship.

3. Methods

The research methods for this systematic literature review used the PRISMA method (Monher et al., 2009), following this approach makes the review process more transparent and replicable, and allows the recommendations resulting from the review to be traced back to the primary studies. The methods used are explicit, thus open to critique, and allow assessment of potential bias at each stage of the review.

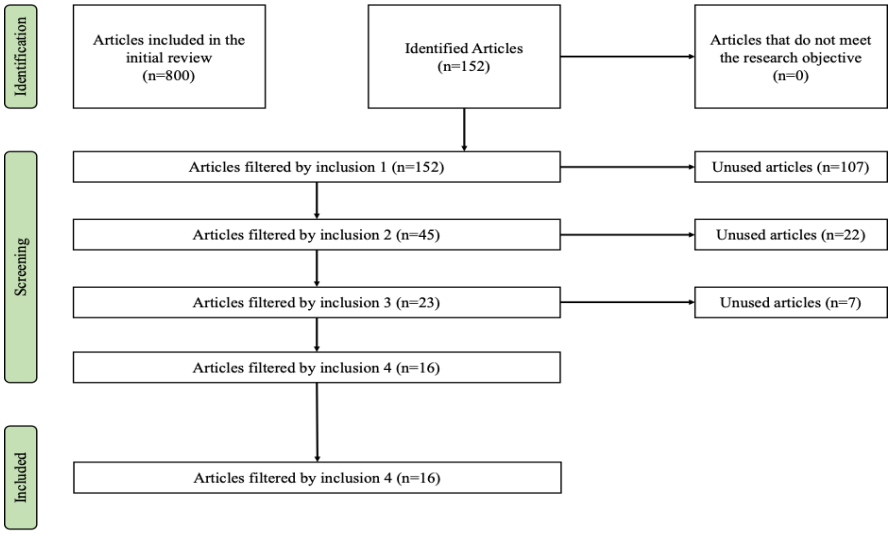

Figure 1. Research Flow

In the initial stage, researchers searched the literature through databases and generated 1200 articles. The research questions had to be clearly defined to answer the research objectives. The articles were examined based on the inclusion and exclusion criteria applied in the study. The following inclusion and exclusion criteria have been validated by a group of experts.

Table 1. Criteria

Inclusion Criteria	Exclusion Criteria
Research that focuses on the implementation of green manufacturing in a corporate context.	Research that is not relevant to the topic of green manufacturing or corporate sustainability performance.
Research that examines the relationship between green manufacturing and corporate sustainability performance.	Research that does not consider green innovation as a mediator.
Research that considers the role of green innovation as a mediator in the relationship between green manufacturing and firm performance.	Research that does not use empirical data or only focuses on theory without empirical analysis.
Research articles published in international journals or presented at international conferences.	Research articles are not published by international journals or have been presented at international conferences.

During the screening stage, we read the entire article to filter out discussions that didn't fit our research goals. Initially, we identified 152 articles based on the first criterion. Out of these, 45 articles met the second inclusion requirement. After applying all three criteria, we narrowed it down to twenty-three articles, with 16 of

them meeting the fourth criterion. We used five specific study questions to determine the content of the articles. Keywords like corporate sustainability performance, green innovation, and green industry implementation were crucial in this process. Finally, at the decision stage, we selected the articles for review. Articles that were not relevant to the research objectives were excluded to ensure consistent focus and reduce bias. A total of 16 articles were selected and reviewed for this study.

4. Results and Discussion

The results show that green manufacturing significantly enhances performance in social, economic, and environmental dimensions. It's noteworthy that operational competitiveness and corporate reputation did not show any influence on economic performance. Moreover, the findings from the mediation analysis revealed that the connection between green manufacturing and economic performance is not influenced by operational competitiveness, corporate reputation, or environmental performance. Instead, the connection between green manufacturing and economic performance was found to be mediated by social performance (Afum et al., 2020). The advent of Industry 4.0 in today's era has heightened the integration of digital technology across various industries. Green supply chain management practices offer dual benefits to businesses, addressing both socioeconomic and environmental concerns. Research indicates that Industry 4.0 has a beneficial effect on sustainable practices like green manufacturing and green logistics. Moreover, these green initiatives significantly enhance the sustainability performance of companies (Umar et al., 2022).

With regards to the connection between corporate culture and green practices, the findings align with what the model suggests. The research indicates that employees tend to view the company's sustainability performance more positively when they are aware of its green initiatives. A robust corporate culture that supports quality improvement processes and green initiatives can also lead to positive sustainability outcomes (Fok et al., 2022). Empirical results prove that green dynamic capabilities, green practices and green value co-creation enhance green innovation mechanisms in SMEs (Yossaf, 2021). The research shows that green human resource management (GHRM) practices greatly improve SMEs' sustainable performance. Green innovation acts as a partial mediator in this relationship, emphasizing its role in enhancing sustainability through GHRM. The study highlights how adopting GHRM can leverage green innovation to strengthen overall sustainability. It also confirms the conventional wisdom about the benefits of environmental management practices in promoting sustainability in innovation and human resource sectors (Al-Shammari et al., 2022).

Kiranantawat & Ahmad (2023) A suggested framework for SME sustainability outlines how SMEs' sustainable performance (SP) interacts with their Green Dynamic Capability (GDC), where Organizational Agility (OA) plays a moderating role. Green Innovation (GI) and Organizational Creativity (OC) are identified as key factors mediating this interaction. Ambidextrous leadership enhances sustainability performance. This relationship is influenced by employees' innovative green ideas. Furthermore, green product innovation also plays a mediating role between ambidextrous leadership and sustainability success. The connection between ambidextrous leadership and sustainability performance is sequentially mediated through a chain involving green creativity and the development of green products (Lyu et al., 2022).

The analysis confirmed nine out of the 11 research hypotheses originally proposed. Statistical data from surveys and in-depth interviews revealed positive relationships among Green Supply Chain Integration (GSCI), Corporate Social Responsibility (CSR), and Green Innovation (GI). These findings highlight the significant roles these factors play in driving sustainable success. The study explains

the positive associations among these variables from three perspectives: (1) how GSCI and CSR contribute to GI, (2) their impact on green industries, and (3) their influence on sustainable performance (Tantayanubutr & Panjakajornsak, 2017).

The study findings showed that HRM practices significantly enhanced employees' environmental performance and promoted green innovation. Additionally, significant effects of various HRM factors were observed on outcomes such as green performance management and evaluation, green training and development, green recruitment and selection, and green compensation and rewards. Beyond their theoretical and practical implications, the study suggests important policy insights, including addressing consumer resistance to innovation in low-income neighborhoods, and identifies future research topics in this area (Kuo et al., 2022).

Sezen & Cankaya (2013), The results of this study show that green manufacturing applications have a significant positive impact on environmental performance and social performance. In addition, green process innovation has a significant positive impact on corporate sustainability. However, green product innovation was not found to have a significant influence on any of the three types of performance. This systematic literature review involved three main stages: planning, execution, and reporting. In the planning phase, we developed review questions, structured the framework, and outlined our approach. Specific search terms, keywords, and inclusion criteria were established, focusing on studies with full-text availability, peer review, and relevance to CSR, green innovation, and sustainable firm performance within the last fifteen years. We excluded modelling-based studies, non-English papers, and publications older than 15 years. The execution phase included tasks such as data extraction, synthesis, quality assessment, and study selection. We conducted a thorough literature search across journals, databases, conferences, and case studies, resulting in a comprehensive list of articles for review and reporting (Le at al., 2022).

Based on the empirical evidence, implementing extensive green technology innovation significantly boosts sustainability performance across economic, environmental, and social dimensions. Moreover, innovation capability plays a crucial role as a strong positive moderator in enhancing the relationship between sustainability performance and green technology innovation (Mukhtar et al., 2024).

The results indicate that sustainable performance, Encompassing Economic (EP), Environmental Performance (EnP), and Social Performance (SP), experiences significant enhancement through Green Manufacturing Practices (GMP). Additionally, Green Supply Chain Integration (GSCI) sees substantial benefits from GMP. Moreover, GSCI acts as a mediator between sustainable performance and the implementation of green manufacturing processes (Afum et al., 2020). The capacity of an organization to Adopt Green Innovation (ORGI) directly enhances its sustainability performance. According to mediation analysis, the improved performance in green innovation is the mechanism through which ORGI contributes to sustainability performance. The moderating role of knowledge integration underscores the importance of internal readiness and proactive engagement with external knowledge to bolster green innovation performance (Ullah et al., 2024).

The research findings affirm that Green Manufacturing Practices (GMP) influence Green Innovation (GI), which in turn affects Corporate Sustainable Performance (CSP). Moreover, the presence of a Green Organizational Culture (GOC) enhances the positive impact of GMP on CSP through GI. This study sheds light on the relationship between GMP and CSP, as well as the mechanisms and conditions that influence this relationship. In addition to advancing understanding in sustainability and green issues, this research holds managerial implications for businesses striving to achieve sustainable performance objectives (Al-Hakimi et al., 2022). Green manufacturing improves a company's competitiveness and reputation,

leading to better sustainable performance. However, to fully benefit, future research needs to fill in the gaps and provide a clearer understanding of how green practices affect company performance. This will help researchers and practitioners use green manufacturing more effectively to promote sustainable growth. Latest technologies like IoT, AI, blockchain, and big data can greatly enhance green practices and operational sustainability. To fully benefit from these technologies, future research should address existing gaps, understand how they connect to green practices, and explore ways to integrate them into a comprehensive sustainability framework. This will help researchers and practitioners use these technologies more effectively for sustainable and eco-friendly operations (Umar et al., 2022).

Supportive organizational culture and effective quality improvement practices are essential for implementing green practices and boosting sustainable performance. To fully harness this potential, future research should address existing gaps, better understand how these elements interact with green practices, and find ways to integrate them into a holistic sustainability framework. This will help researchers and practitioners use organizational culture and quality improvement practices more effectively for sustainable and eco-friendly operations (Fok et al., 2022). Green dynamic capabilities can significantly drive green innovation through green practices and value creation. To fully harness this potential, future research needs to fill gaps, understand how these capabilities relate to green practices and innovation, and explore integrating various green initiatives into a comprehensive innovation framework. This will help researchers and practitioners use green dynamic capabilities more effectively for sustainable and eco-friendly operations (Yousaf 2021).

Green manufacturing and eco-friendly innovation can greatly boost a company's sustainable performance. To fully benefit, future research should address gaps in understanding how these green practices relate to sustainable performance and explore ways to integrate them into a comprehensive sustainability framework. This will help researchers and practitioners use green manufacturing and eco-friendly innovation more effectively for sustainable operations. Green manufacturing practices and green supply chain integration can significantly improve a company's sustainable performance. To fully harness this potential, future research should address existing gaps, better understand how these green practices connect to sustainable performance, and explore ways to integrate them into a comprehensive sustainability framework. This will help researchers and practitioners use green practices and supply chain integration more effectively for sustainable and eco-friendly operations (Afum et al., 2020).

This literature review highlights how proactive organizational strategies, readiness for green innovation, and enhancing green innovation performance drive environmental sustainability among exporting companies. By fostering these practices and integrating knowledge effectively, companies can meet regulations and gain long-term competitive advantages. Future research should further investigate these dynamics to offer practical insights for sustainable business practices in the global market (Ullah et al., 2024). Le et al. (2022) This literature review emphasizes the crucial role of CSR and green innovation in advancing environmental sustainability and gaining competitive advantages in corporations. Integrating CSR principles with innovative green practices helps companies foster resilience, adaptability, and long-term profitability in a sustainability-focused global market. Future research should further explore these dynamics to offer practical insights for achieving sustainable business practices and enhancing societal well-being.

5. Conclusion

The conclusions derived from the reviewed journals reveal that each variable referenced in the research hypothesis produces positive and significant outcomes.

Green manufacturing implementation consistently demonstrates a positive and significant effect on green innovation and corporate green sustainability, while green innovation significantly enhances corporate green sustainability. This indicates that companies embracing green manufacturing and innovation practices are more likely to attain long-term sustainability across economic, social, and environmental dimensions. Future research should include further studies to investigate the contextual variability and long-term impacts of these practices, as well as the integration of green manufacturing practices with other sustainability dimensions to offer a more comprehensive perspective on corporate sustainable performance.

References

Afum, E., Agyabeng-Mensah, Y., Sun, Z., Frimpong, B., Kusi, L. Y., & Acquah, I. S. K. (2020). Exploring the link between green manufacturing, operational competitiveness, firm reputation and sustainable performance dimensions: a mediated approach. *Journal of Manufacturing Technology Management*, *31*(7), 1417-1438.

Afum, E., Osei-Ahenkan, V. Y., Agyabeng-Mensah, Y., Owusu, J. A., Kusi, L. Y., & Ankomah, J. (2020). Green manufacturing practices and sustainable performance among Ghanaian manufacturing SMEs: the explanatory link of green supply chain integration. *Management of Environmental Quality: An International Journal*, *31*(6), 1457-1475.

Al-Shammari, A. S., Alshammrei, S., Nawaz, N., & Tayyab, M. (2022). Green human resource management and sustainable performance with the mediating role of green innovation: a perspective of new technological era. *Frontiers in Environmental Science*, *10*, 901235.

Boiral, O. &. (2012). Organizational Citizenship Behaviour for the Environment: Measurement and Validation. *Journal of Business Ethics*, 109(4), 431-445.

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*, 107-119.

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*, 331-339.

Cheng, C. C., & Shiu, E. C. (2012). Validation of a proposed instrument for measuring eco-innovation: An implementation perspective. *Technovation*, *32*(6), 329-344.

Cheng, C. Y. (2014). The link between eco-innovation and business performance: a Taiwanese industry context. *Journal of Cleaner Production*, 64, 81-90.

Chiou, T.-Y. C. (2011). The influence of greening the suppliers and green innovation on environmental performance and competitive advantage in Taiwan. *Transportation Research Part E: Logistics and transportation review*, 47, 822-836.

Cleff, T. &. (1999). Determinants of environmental product and process innovation. *European Environment*, 9, 191-201.

Dheeraj, N. a. (1992). An overview of green supply chain management in India. *Research Journal of Recent Sciences* , ISSN, *2277* (1992): 2502.

Dubey, R., Gunasekaran, A., & Ali, S. S. (2015). Exploring the relationship between leadership, operational practices, institutional pressures and environmental performance: A framework for green supply chain. *International Journal of Production Economics*, *160*, 120-132.

Dyllick, T., & Hockerts, K. (2002). Beyond the business case for corporate sustainability. *Business strategy and the environment*, *11*(2), 130-141.

Fernando, Y., Jabbour, C. J. C., & Wah, W. X. (2019). Pursuing green growth in technology firms through the connections between environmental innovation and sustainable business performance: does service capability matter?. *Resources, conservation and recycling*, *141*, 8-20.

Fok, L., Zee, S., & Morgan, Y. C. T. (2022). Green practices and sustainability performance: the exploratory links of organizational culture and quality improvement practices. *Journal of Manufacturing Technology Management*, *33*(5), 913-933.

Ghazilla, R. a.-R. (2015). Drivers and Barriers Analysis for Green Manufacturing Practices in Malaysian SMEs: A Preliminary Findings. *Procedia CIRP*, *26*, 658–663.

Gul, R. F. ((2021b)). Linkages between Market Orientation and Brand Performance with Positioning Strategies of Significant Fashion Apparels in Pakistan. *Fash. Text*, 8 (1), 1–19.

Huang, J. W., & Li, Y. H. (2017). Green innovation and performance: The view of organizational capability and social reciprocity. *Journal of business ethics*, *145*, 309-324.

Huang, Y. a. (2021). Institutional pressure, firm's green resources and green product innovation: evidence from Taiwan's electrical and electronics sector. *European Journal of Innovation Management*, 0217.

Indriastuti, M., & Chariri, A. (2021). The role of green investment and corporate social responsibility investment on sustainable performance. *Cogent Business & Management*, *8*(1), 1960120.

Kiranantawat, B., & Ahmad, S. Z. (2023). Conceptualising the relationship between green dynamic capability and SME sustainability performance: the role of green innovation, organisational creativity and agility. *International Journal of Organizational Analysis*, *31*(7), 3157-3178.

Kraus, S. R. (2020). Corporate Social Responsibility and Environmental Performance: The Mediating Role of Environmental Strategy and Green Innovation. *Technol. Forecast. Soc. Change* , 160, 120262.

Kuo, Y. K., Khan, T. I., Islam, S. U., Abdullah, F. Z., Pradana, M., & Kaewsaeng-On, R. (2022). Impact of green HRM practices on environmental performance: The mediating role of green innovation. *Frontiers in Psychology*, *13*, 916723.

Laari, S., Töyli, J., Solakivi, T., & Ojala, L. (2016). Firm performance and customer-driven green supply chain management. *Journal of cleaner production*, *112*, 1960-1970.

Le, T. H. (2022). Quantile time–frequency price connectedness between green bond, green equity, sustainable investments and clean energy markets. *Journal of Cleaner Production*, *361*, 132088.

Lyu, C., Peng, C., Li, R., Yang, X., & Cao, D. (2022). Ambidextrous leadership and sustainability performance: serial mediation effects of employees' green creativity and green product innovation. *Leadership & Organization Development Journal*, *43*(8), 1376-1394.

Mandal, A., & Pal, B. (2021). Effects of green innovation and advertisement in an imperfect production-based competitive supply chain under two-tier credit facility. *Mathematical Methods in the Applied Sciences*, *44*(17), 13227-13251.

Mohammed A. Al-Hakimi, A. K.-S. (2022). T*he influence of green manufacturing practices on the corporate sustainable performance of SMEs under the effect of green organizational culture: A moderated mediation analysis*. Elsevier.

Mohsin, M., Jamil, K., Naseem, S., Sarfraz, M., & Ivascu, L. (2022). Elongating nexus between workplace factors and knowledge hiding behavior: mediating role of job anxiety. *Psychology Research and Behavior Management*, 441-457.

Mukhtar, B., Shad, M. K., & Lai, F. W. (2024). *Fostering sustainability performance in the Malaysian manufacturing companies: the role of green technology innovation and innovation capabilities*. Benchmarking: An International Journal.

Padilla-Lozano, C. C. (2021). *Corporate social responsibility, green innovation and competitiveness – causality in manufacturing*. Compet. Review, ahead-of-print.

Porter, M. E., & Linde, C. V. D. (1995). Toward a new conception of the environment-competitiveness relationship. *Journal of economic perspectives*, *9*(4), 97-118.

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), 146-165.

Sezen, B. &. (2013b). Effects of Green Manufacturing and Eco-innovation on Sustainability Performance. *Procedia: Social & Behavioral Sciences*, 99, 154–163.

Sezen, B., & Cankaya, S. Y. (2013). Effects of green manufacturing and eco-innovation on sustainability performance. *Procedia-Social and Behavioral Sciences*, *99*, 154-163.

Shahzad, M., Qu, Y., Zafar, A. U., Rehman, S. U., & Islam, T. (2020). Exploring the influence of knowledge management process on corporate sustainable performance through green innovation. *Journal of knowledge management*, *24*(9), 2079-2106.

Taha, N. A.-R. (2023). Corporate sustainability performance and profitability: The moderating role of gender diversity. *Cogent Business & Management*, 10(1), 2162685.

Tantayanubutr, M., & Panjakajornsak, V. (2017). Impact of green innovation on the sustainable performance of Thai food industry. *Business and Economic Horizons*, *13*(2), 192-209.

Thanh Tiep Le, X. V. (2022). *Role of green innovation and supply chain management in driving sustainable corporate performance. Elsevier.*

Ullah, S., Ahmad, T., Kukreti, M., Sami, A., & Shaukat, M. R. (2024). How organizational readiness for green innovation, green innovation performance and knowledge integration affects sustainability performance of exporting firms. *Journal of Asia Business Studies*, *18*(2), 519-537.

Umar, M., Khan, S. A. R., Zia-ul-haq, H. M., Yusliza, M. Y., & Farooq, K. (2022). The role of emerging technologies in implementing green practices to achieve sustainable operations. *The TQM Journal*, *34*(2), 232-249.

Yang, C. S., Lu, C. S., Haider, J. J., & Marlow, P. B. (2013). The effect of green supply chain management on green performance and firm competitiveness in the context of container shipping in Taiwan. *Transportation Research Part E: Logistics and Transportation Review*, *55*, 55-73.

Yousaf, Z. (2021). Go for green: green innovation through green dynamic capabilities: accessing the mediating role of green practices and green value co-creation. *Environmental science and pollution research*, *28*(39), 54863-54875.

Zhu, Q., & Sarkis, J. (2004). Relationships between operational practices and performance among early adopters of green supply chain management practices in Chinese manufacturing enterprises. *Journal of operations management*, *22*(3), 265-289.

Zhu, Q., Sarkis, J., & Lai, K. H. (2012). Green supply chain management innovation diffusion and its relationship to organizational improvement: An ecological modernization perspective. *Journal of Engineering and Technology Management*, *29*(1), 168-185.