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Green Initiatives and Environmental Performance in Various Industries and Its Impact on Human Health: A TCCM-Based Systematic Literature Review

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ABSTRACT: This systematic literature review (SLR) examines the link between ‘green initiatives’ and ‘environmental performance’ in various organisations across sectors. The study analyses 133 articles published between 2010 and 2026 using the PRISMA methodology and TCCM framework. The purpose of this study is to evaluate the state of green initiatives carried out in organisations and their tangible or intangible impact through the lens of environmental performance. This study spans manufacturing, hospitality, banking, and even SMEs, across multiple countries. This study documents all types of green initiatives, technological advancements for sustainability, recent trends and developments in sustainability, dominant variables, theoretical underpinnings, and

methodological approaches. The findings show that technology has helped a good deal in reducing carbon footprint, adopting renewables, and improving recycling in organisations. This review enlists frequently used constructs, including Sustainable Manufacturing Practices, Green Innovation, Conscious Consumerism, Human Health, Natural resources, Circular Economy Practices, Resource Efficiency, Cleaner Production, Eco-efficiency, OCB, to name a few. It offers comprehensive research data and insights for researchers and the industry, aiming to carry out effective green and sustainable practices in organisations.

INTRODUCTION:

This SLR of 133 articles studies articles from both Scopus and WOS lists on “green initiatives” and “environmental performance” (Tulsi & Ji, 2020; Li, Muhammad, Rehman, & Uktamov, 2024; Wang & Chan, 2013; Khalil, Che Abdullah, Haron, & Hamid, 2024). This articles also explores the impact on human health by the green initiatives and environmental performance. It was found that 22 overlapping articles were present in both WOS and Scopus database. The study identified several research questions along TCCM dimensions. Notably, no reviewed study explicitly defined “green initiatives” or “environmental performance” in a rigorous way, revealing a conceptual gap; literature sources generally describe green initiatives as broad environmental efforts e.g., “efforts aimed at promoting environmental sustainability” and environmental performance as the measurable outcome of a firm’s environmental objectives (Dangelico & Pontrandolfo, 2015; Sadiq, Nawaz, Sharif, & Hanif, 2024; Karagkouni & Boile, 2024). The reviewed articles cover a wide variety of initiatives led by green innovation, green supply chain management, and green HRM practices but definitions and labels vary (Lin, Chen, & Huang, 2014; Weng, Chen, & Chen, 2015; Miroshnychenko, Barontini, & Testa, 2017; Garcia-Granero, Piedra-Muñoz, & Galdeano-Gómez, 2018; Quan, Wu, Li, & Ying, 2018). Across studies, the most common independent constructs are green practice variables e.g., green innovation, GSCM, green HRM, and green finance schemes (Tulsi & Ji, 2020; Bangwal, Tiwari, & Chamola, 2017; Afum, Agyabeng-Mensah, Opoku Mensah, Mensah-Williams, Baah, & Dacosta, 2021; Amrutha & Geetha, 2021). In contrast, environmental performance and related sustainable or financial performance measures is overwhelmingly the dependent variable (Qiu, Bashir, Gul, Sadiq, & Naseem, 2025; Varanavicius & Navikaite, 2015; Walls, Berrone, & Phan, 2012; Seo & Cordeiro, 2025). Typical mediators include organisational capabilities e.g., conscious consumerism, green innovation, knowledge management, entrepreneurship orientation, employee green attitudes, and the most popular theories are the Resource-Based View (RBV) and its Natural-Resource variant, Institutional Theory, and Stakeholder Theory (Walls et al. (2012), Seo & Cordeiro (2025), Mohy-ud-Din et al. (2025)). Method-wise, the majority of articles use cross-sectional quantitative studies analysed via SEM/regression drawing on purposive or convenience samples, with few longitudinal or experimental designs.

Due to this space and gap, our study adopts a systematic literature review as per the PRISMA protocols and the TCCM framework. While attempting systematic literature reviews, researchers utilize a structured approach to present their examination of existing literature. (Mir & Bhat, 2022), (Aguilera et al., 2021), and (Caldera et al., 2017), have made significant contributions in the form of review articles in this field. (Paul and Criado, 2020) suggested organising content based on theories, characteristics, contexts, and methods. This study adopts the theories, characteristics, contexts, and methodology (TCCM) framework given by (Paul et al., 2019). This framework helped in consolidating the literature on green initiatives adopted in industry and their impact on environmental performance of the organisation. In this study, researchers reviewed the definitions, types of green initiatives, research trends, dominant variables, theoretical underpinnings, and methodological approaches. This research also examined the industrial contexts of the studies, categorizing them based on the type of organisation. Through this research, the characteristics of the studies, such as the types of green initiatives and strategies, and their environmental impacts, were examined (Birindelli, Miazza, Palea, & Aliano, 2025; Duzgun & Atay, 2025; Hashed, Almaqtari, Elmashtawy, & Raweh, 2025; Omri, Hamza, & Alkahtani, 2025; Abbas, 2026; Wang, Zhen, Li, Ma, & Ma, 2026).

The country distribution of the articles demonstrates that green initiatives are in majority in economies, such as China and India (Savita, Dominic, & Ramayah, 2016; Caldera, Desha, & Dawes, 2017). This majority suggests that environmental performance is dominant in countries with industrial growth, manufacturing technology advancements, and mandatory compliance in developing economies. Developed economies such as the United Kingdom, United States, and Germany are more innovation driven, while developing countries do focus on green manufacturing, green HRM, and sustainable development practices. This

review also suggests that African and Latin American countries are comparatively less studied, showing a big gap in environmental performance literature.

The primary aim of this study is to assess the current state of green initiatives carried out in different industry through a systematic analysis of various research (Bangwal, Tiwari, & Chamola, 2017; Miroshnychenko, Barontini, & Testa, 2017; Garcia-Granero, Piedra-Muñoz, & Galdeano-Gómez, 2018). The various industry includes manufacturing, agriculture and food processing industry, heavy engineering, hospitality, chemical, services, to name a few. Surprisingly agriculture and food processing industry are also major contributors of poor environmental performance. Here, green initiatives such as boosting conscious consumerism are also a point of focus. Conscious consumerism is directly opposed to the overuse of chemicals in farming practices, and the desire for organic food is driven by this. This change enhances environmental performance at the farm and organization level, creating a cycle where consumer values drive systemic improvements in sustainability. (Kautish, P., & Sharma, R., 2020). Environmental performance of organizations satisfying consumer's demand for organic and eco-friendly products Fewer chemicals, sustainable farming and ethical supply chains all add up to a smaller ecological footprint and better sustainability metrics (Lazaroiu, G., et al, 2019).

Additionally, this study tries to document many aspects such as definitions, types of green initiatives, research types, variables, theories, and methods. This study does an in-depth examination of various dimensions of green initiatives while delivering a deep review of contributions from various countries. The findings clarify the current status but also contribute to the development of a list of best practices at a glance. Accordingly, this study addresses the following research questions based on the TCCM framework:

Research Question no. 1 is based on the Theory: Which theories dominate the research on green initiatives and environmental performance?

Research Question no. 2 is based on the Context: What all contexts such as industry, type of organisation, country etc have been studied, and how do they moderate the link between green initiatives and performance?

Research Question no. 3 is based on the Characteristics: What all initiatives are considered as “green initiatives” and what shows “environmental performance” of the organisation, and what types of green initiatives are most common that impact the human health?

Research Question no. 4 is based on the Methodology: What all methodologies were used in the articles, and what are their limitations?

RESEARCH METHODOLOGY:

SLRs are important components of detailed research analysis, divided into three main categories: theory-based, domain-based, and method-based reviews. These categories provide a framework for understanding and organising research in various fields. Domain wise reviews, which are prevalent in existing literature, are shown as the most common type, covering both business and non-business research, as done by Paul et al. (2020). There are different approaches, including framework-based reviews, which organise existing research within established frameworks to improve understanding, as discussed by Paul and Benito (2018). Bibliometric reviews, introduced by Oraee et al. (2017), Randhawa et al. (2016), S. Verma and Gustafsson (2020), Xu et al. (2018), use quantitative analysis to show patterns and relationships within the literature, showcasing influential authors, key concepts, and thematic trends. Hybrid-narrative reviews, as demonstrated by A. Kumar et al. (2020) and Paul et al. (2017), combine narrative building with systematic methodologies to create an intact narrative linking different studies. Theory-based reviews, as explored by Paul et al. (2019), looked into the theories of a subject, enriching readers' understanding of theoretical foundations. Systematic reviews, including meta-analysis reviews, as introduced by Barari et al. (2021), Maseeh et al. (2021), Segijn and Eisend (2019), statistically analyse data from many studies to extract few broader insights which are not evident in individual research.

TCCM Framework:

The popular TCCM framework stands for Theory, Context, Characteristics and Methodology. It was proposed by Justin Paul and Alexandra Rosado-Serrano in 2019 as a structured framework for conducting systematic literature reviews and identifying research gaps very clearly. The framework helps researchers review existing studies from four important dimensions that are-

the theories used in the studies, the contexts where the studies were conducted, the major constructs and variables examined, and the methodologies adopted by researchers. TCCM has emerged as one of the most widely used frameworks in recent SLR studies because it provides an all-encompassing and organized way of reviewing literature and developing research agendas for future.

This study adopts the TCCM framework because it allows a systematic understanding of the literature on green initiatives and environmental performance from multiple perspectives. Unlike traditional reviews that mainly summarize findings, TCCM helps in identifying theoretical gaps, contextual limitations, construct-related issues, and methodological weaknesses in the existing research. Through this framework, it was possible to examine the most commonly used theories, countries, variables, and research methods in the selected articles. It also helped in developing future research directions in a structured manner. Thus, TCCM was considered suitable for this review because it provides a clear and whole picture of the research field and supports robust theory development for future studies.

Previous Literature Reviews:

Table 1. Previous Literature Reviews in the Field of Green Initiatives and Environmental Performance.

Sr No	Title	Reference	Focus	Type of study	Type of industry
1	"A review of green practices and initiatives from stakeholders' perspectives towards sustainable hotel operations and performance impact".	Khalil et al., 2024	Green practices in hospitality	Empirical and conceptual hospitality studies	Hotel industry
2	"Green banking and sustainability – a review".	Mir & Bhat, 2022	Green banking & sustainability	Conceptual + empirical banking literature	Banking sector
3	"The Corporate Governance of Environmental Sustainability: A Review and Proposal for More Integrated Research".	Aguilera et al., 2021	Governance & environmental sustainability	Primarily conceptual + prior empirical literature	Corporations
4	"Eco-innovation measurement: A review of firm performance indicators".	García-Granero et al., 2018	Eco-innovation measurement	Empirical indicator-based studies	Corporations
5	"Exploring the role of lean thinking in sustainable business practice: A systematic literature review".	Caldera et al., 2017	Lean + sustainability integration	Conceptual and empirical research articles	Manufacturing Industry

This study used the systematic literature review approach given by Paul and Criado (2020) to examine the previous lot of literature on green initiatives and environmental performance. An important factor in creating a robust literature review article lies in the subject you choose. An SLR on the chosen subject should not have been done in recent publications or the review should offer new and innovative perspectives.

Khalil et al., 2024 conducted a literature review and identified 27 attributes of green practices and initiatives for sustainable hotel operations from the perspectives of managers, employees and customers. The identified attributes were 10 from the

manager's perspective, which included Green Marketing Strategy, Green Managerial Attitude, Eco-Innovation Investment, Marketing and Sustainability, Environmental Management Strategy, Green Supply Chain, Green Managerial Awareness, Green Procurement, Green Human Resources and Green Technology. The identified attributes were 5 from the employee's perspective, which included Employee Green Awareness, Employee Green Training and Educating, Employee Environmental Behaviour, Employee Green Performance and Employee Green Reward. The identified attributes were 12 from the customer's perspective, which included Customer Perception, Customer Loyalty, Customer Awareness, Customer Behaviour, Customer Trust, Green Supply Chain, Green Value, Green Marketing Strategy, Customer Perceived Value, Service Quality, Brand Image and Hotel Design. This SLR differs from prior work in its use of the TCCM framework and critically examines how knowledge is produced. Furthermore, it not only provides descriptive synthesis but also offers managerially relevant insights by linking green initiatives with improved environmental performance of the firm. These differences make our SLR a timely and original contribution that goes beyond the descriptive scope of previous studies.

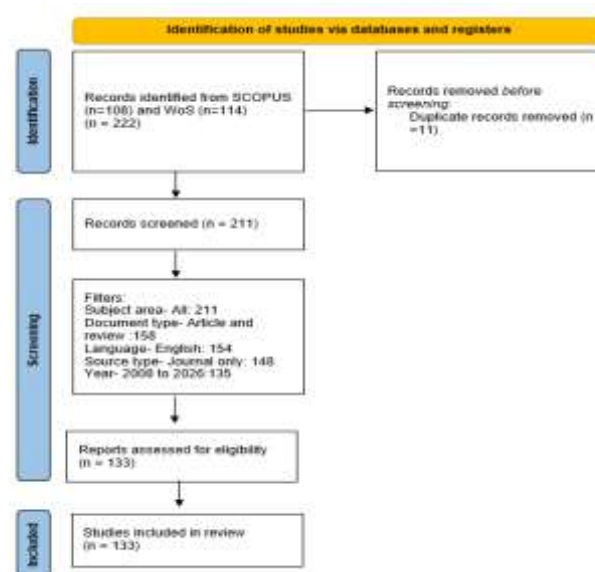
Inclusion and Exclusion Criteria:

This SLR studies articles about green initiatives and their impact as environmental performance of the organisation published in Scopus indexed and Web of Science journals. Scopus and WoS were chosen as they are reputed indexers and quality of the journals and articles are impeccable.

The keywords “Green Initiatives” AND “Environmental Performance”, were searched utilizing the filters and provisions of the Scopus and WoS database website, within the Article title, Abstract, Keywords in the search documents section of Scopus and WoS database. The search for documents was refined in the refine results section of Scopus & WoS database website. The subject area was limited to “Business, Management and Accounting” only. Document type was set to Article and Review. Language was selected as English only. Source type was limited to Journal only. The publication stage was limited to final and articles in press. After that, as per the aim of the study the publications from the year 2010 to 2026. The current SLR emphasizes studies focusing on green initiatives and environmental performance. This study takes into account, empirical and conceptual studies with clear framework to study direct linkage between green initiatives and performance outcomes.

PRISMA Framework: PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) where the flow diagram shows the process of article selection for a systematic literature review. WoS and Scopus identified 222 articles in the first round. Only articles and reviews (158 articles), written in English (154 articles), published in journals (148 articles), and in the final publication stage or in press (148 articles) were taken into account. The publication period was restricted to 2010 to 2026 (133 articles) as the first article (Walls, J. L., et. al. (2012)) on corporate governance and environmental performance was published in 2012. After the screening process, all articles were assessed for eligibility, from these all 133 articles were included.

Table 1: PRISMA flow chart.



Source: Page MJ, et al. BMJ 2021;372:n71. doi: 10.1136/bmj.n71.

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Coding Procedures and Inter-Coder Reliability.

To add power to the reliability and unbiasedness of the review process, a systematic coding procedure was adopted for data extraction and organisation. Articles that were shortlisted through the PRISMA framework were studied in detail and categorized according to the heads of the TCCM framework, such as theory underpinnings, constructs, contextual settings and research methodology.

Data Analyses and Interpretation:

Definitions of Green Initiatives and Environmental Performance in the Literature:

The table compiles definitions from all the articles to illustrate what the terms can mean. Since each paper had a different connotation, giving a structured definition was infeasible due to the lack of explicit definitions in the articles.

Table 2: Definitions

Term	Definitions	Source
Green Initiatives	“Organisational efforts aimed at promoting environmental sustainability (e.g., reducing carbon footprint, adopting renewables, improving recycling)”.	The Oxford Review
Environmental Performance	“The measurable outcomes of a firm’s operations/products in relation to environmental objectives essentially, how well it manages its environmental impact”.	Science Direct

The definitions of both Green Initiatives and Environmental Performance mean different for different industries (Quan, Wu, Li, & Ying, 2018; Aziz, Ong, Foong, Senik, & Attan, 2018; Singjai, Winata, & Kummer, 2018). The literature review shows that both green initiatives and environmental performance are umbrella terms to denote a number of activities and their impact (Sureeyatanapas, Poophiukhok, & Pathumnakul, 2018; Krysovaty, Zvarych, Zvarych, & Zhyvko, 2018; Shashi, Cerchione, Centobelli, & Shabani, 2018; Trid, Corbett, & Bouchard, 2019; Tulsi & Ji, 2020). There is less consensus on the definitions of “green initiatives”, leading to inconsistent operationalization (Heras-Saizarbitoria, Boiral, & Diaz de Junguitu, 2020; Gupta & Zhang, 2020; Puig, Raptis, Wooldridge, & Darbra, 2020). There was a need to standardize definitions. Articles were collected and studied to get clear definitions but none of the reviewed articles provided a fixed or standard definition of “green initiatives” or “environmental performance”, highlighting gap. According to the industry or the sector studied, the authors describe green initiatives through examples prevalent in that particular industry or sector (Yousaf, Radulescu, Nassani, Aldakhil, & Jianu, 2021; Wang, Khan, Anwar, Shahzad, Adu, & Murad, 2021). The Oxford Review, defined “green initiatives” as broadly “organisational or community-led efforts aimed at promoting environmental sustainability”, including actions like reduction in carbon footprints, promoting reduce, reuse, recycle, repurpose, promoting renewable energy usage, or improving recycling.

In the same way, “environmental performance” is often called “the measurable outcomes of a company’s operations in relation to environmental objectives”, or simply, “how well an organisation manages its impact on the world” (Walls, Berrone, & Phan, 2012; Wang & Chan, 2013; Weng, Chen, & Chen, 2015; Jackson, Singh, & Parsa, 2015; Rajput, Bharti, & Singh, 2016). These definitions try to summarize how the reviewed articles implicitly treat the terms. It is noted that none of the articles in the corpus were widely accepted definitions, which leads to conceptual ambiguity.

Green Initiatives Identified

Across the 133 articles, we identified and listed the specific types of green practices labelled as “green initiatives.” Table no. 3 displays major categories and how often they appear. The standout initiatives include:

Eco-innovation or Green Innovation which appears in around 50 articles - referring to developing environmentally friendly products or processes.

Green-Supply Chain Management that appears around 50 articles - Practices like eco-design, green procurement, lean & green manufacturing.

Green Human Resource Management (GHRM) in around 46 articles - Employee-level initiatives (green training, rewards, leadership).

Environmental Management Systems in around 28 articles - Formal systems (e.g. ISO 14001) that organise green initiatives.

Green Finance in around 23 articles - Financial processes, instruments or policies (e.g. green banking, sustainability bonds).

Green Training or Green Culture in around 12 articles - Educational or cultural initiatives within firms.

Information Systems like Green IT/IS and Renewable Energy and Resource Efficiency in around 7–8 articles each.

These reflect how broad the label “green initiatives” is in practice. Many articles clearly equate green initiatives with whatever environmental practice they study (Savita, Dominic, & Ramayah, 2016; Bangwal, Tiwari, & Chamola, 2017; Miroshnychenko, Barontini, & Testa, 2017). For example, one study considers “green innovation” itself as the initiative, another studies “green supply chain practices”, and yet another looks at firms’ rewards of sustainability-linked bonds.

Table 3: Most frequent green initiatives in the literature

Category of the Initiative	Number of articles	Initiatives
“Green Innovation/Eco-innovation”	50	Developing eco-friendly products/processes
“Green Supply Chain Management”	50	Lean & green manufacturing, supplier green practices
“Green HRM (employees)”	46	Green training, performance rewards
“Environmental Management Systems”	28	ISO 14001, formal environmental programs
“Green Finance/Banking”	23	Sustainability bonds, green credit lines
“Green Training/Culture”	12	Employee green workshops, green leadership initiatives
“Green IT/IS”	7	Green data centres, eco-IT projects
“Renewable Energy & Efficiency”	8	Renewable power adoption, energy saving
less than 5 each	–	Green marketing, green taxation, etc.

The counts reveal that the most frequently occurring labels are “green innovation” and “green supply chain”. Other examples, less frequent but still relevant, are financial instruments and HR initiatives. The diversity of initiatives reflects the absence of a common classification in the literature a problem we advise to be addressed in future research.

Most influential articles:

Out of the 133 articles, the top 15 most influential articles have been listed in the table. Most top-cited articles fall in the WoS, meaning a stronger citation or visibility compared with the Scopus records.

Table 4: Most Influential Articles

Sr. No.	Reference	Title	Journal	Indexing	Citations
1	Judith L. Walls et al.	“Corporate governance and environmental performance: is there really a link?”	Strategic Management Journal	WoS	969
2	Yafei Tan & Zhaohui Zhu	“The effect of ESG rating events on corporate green innovation in China: The mediating role of financial constraints and managers' environmental awareness.”	Technology in Society	WoS	529
3	Hua-Hung Weng et al.	“Effects of Green Innovation on Environmental and Corporate Performance: A Stakeholder Perspective.”	Sustainability	WoS	457
4	Ivan Miroshnychenko et al.	“Green practices and financial performance: A global outlook”.	Journal of Cleaner Production	WoS	341
5	Ruth V. Aguilera et al.	“The Corporate Governance of Environmental Sustainability: A Review and Proposal for More Integrated Research.”	Journal of Management	WoS	330
6	Rosa Maria Dangelico & Pierpaolo Pontrandolfo	“Being 'Green and Competitive': The Impact of Environmental Actions and Collaborations on Firm Performance”.	Business Strategy and the Environment	WoS	321
7	Junaaid Aftab et al.	“Green human resource management and environmental performance: The role of green innovation and environmental strategy in a developing country.”	Business Strategy and the Environment	WoS	307
8	H.T.S. Caldera et al.	“Exploring the role of lean thinking in sustainable business practice: A systematic literature review”.	Journal of Cleaner Production	Scopus	200
9	H.T.S. Caldera et al.	“Exploring the role of lean thinking in sustainability”.	Journal of Cleaner Production	WoS	195
10	Eva M. Garcia-Granero et al.	“Eco-innovation measurement: A review of firm performance indicators.”	Journal of Cleaner Production	WoS	192
11	Syed Ali Raza et al.	“Impact of green human resource practices on hotel environmental performance: the moderating effect of environmental knowledge and individual green values.”	International Journal of Contemporary Hospitality Management	Scopus	191

12	Han Long et al.	“ESG performance and green innovation: An investigation based on quantile regression.”	Business Strategy and the Environment	WoS	184
13	Komkrit Singjai et al.	“Green initiatives and their competitive advantage for the hotel industry in developing countries.”	International Journal of Hospitality Management	WoS	178
14	Farzana Riva et al.	“Investigating the link between managers' green knowledge and leadership style, and their firms' environmental performance: The mediation role of green creativity.”	Business Strategy and the Environment	Scopus	169
15	Amrutha, V.N. et al.	“Linking organisational green training and voluntary workplace green behavior: Mediating role of green supporting climate and employees' green satisfaction.”	Journal of Cleaner Production	Scopus	165

Mostly used variables:

The variables most studied were identified as:

Independent Variables (Antecedents/Predictors) Several articles examine specific green practices or drivers as predictors of outcomes. The most popular IVs are Green Innovation (appeared in about 22 articles) and Green Supply Chain Management (about 8), Green HRM Practices (about 8) and Green Finance/Banking (about 5). Other common IVs are stakeholder pressures (e.g. customer or regulatory pressure), managerial environmental concern and lean management practices. Different green-organisational constructs are thus used as IVs.

Dependent Variables (Outcomes): By far the most common DV is Environmental Performance or related environmental outcomes (explicitly mentioned in around 55 articles) – i.e. measures of an organisation's environmental impact or eco-efficiency. Other studies explore Sustainable Performance (about 6 articles) and traditional outcomes such as Financial Performance (9 total articles) and Operational Performance (4). The top DVs used are listed in Table 4.

Mediating Variables: Common mediators are Green Innovation (mediating between organisational initiatives and performance), organisational Learning, Sustainability Orientation and employee-related attitudes (Organisational identification, green passion, green satisfaction). For example, several studies indicate that green HRM enhances performance through improved green knowledge or innovation. Other mediators such as Green Entrepreneurial Orientation and Green Business Model adoption were also in place. But there is no prevailing mediator.

Table 5: Top dependent and independent variables in reviewed studies

Variable Type	Variable	No. of articles	Study Context
Independent	“Green Innovation”	22	Impact of green product innovation on EP
	“Green Supply Chain Management”	8	Effects of lean/green supply practices
	“Green HRM Practices”	8	Effects of green training, rewards
	“Green Finance (e.g. green bonds)”	5	Sustainability bonds & firm performance
	“Stakeholder/Customer Pressure”	4	Customer pressure on environmental actions

	“Managerial Environmental Concern”	3	CEO green values → sustainability practices
Dependent	“Environmental Performance”	55	Firm’s eco-efficiency or emission level
	“Sustainable Performance”	6	Triple bottom-line measures
	“Economic/Financial Performance”	9	ROI, profitability, firm value
	“Operational Performance”	4	Production efficiency, waste reduction
	“Employee Outcomes (e.g. green behavior)”	5	Employees’ environmental initiative-taking

Theoretical Perspectives:

The reviewed articles bring about a variety of theoretical frameworks. Table 5 shows the most cited theories:

1. Resource-Based View (RBV) / Natural-Resource-Based View (NRBV): These were present in 20 articles. Some view green practices as strategic resources that create sustained advantage and better performance. One study explicitly draws on RBV to explain how green HRM capabilities lead to green innovation and performance (Tulsi & Ji, 2020).
2. Institutional Theory: Used in around 8 articles, it explains adoption of green initiatives via institutional pressures or legitimacy motives (Khalil, Che Abdullah, Haron, & Hamid, 2024).
3. Stakeholder Theory: Cited in around 6 articles, framing green initiatives as responses to stakeholder demands for sustainability (Adomako, Simms, Vazquez-Brust, & Nguyen, 2023).
4. Upper Echelons Theory / Leadership Theories: A few studies (3 to 5 articles) use upper-echelons to link executive attributes to environmental strategy.
5. AMO (Ability-Motivation-Opportunity) Theory: Appears in 1 to 2 articles in the HRM context explaining how to motivate employees to enact green practices (Amrutha & Geetha, 2021).
6. Legitimacy / Institutional logics: A few articles mention these (1 to 2 articles) in passing.
7. Other theories: Social Exchange Theory, Resource Dependence Theory, Cognitive Appraisal, Diffusion Theory, etc., each appears sporadically (1 to 2 articles each).

Theoretical fragmentation is suggested in this study. Many authors do not base their study on a strong theory or use multiple unrelated theories. We observe a dearth of theory testing – conflicting predictions of different frameworks rarely overlap.

Table 6: Mostly used Theory

Theoretical Lens	No. of articles	Example
Resource-Based View (RBV)/Natural-Resource-Based View	20	Most common; explains green capabilities
Institutional Theory (incl. Neo-Institutional)	8	Focus on regulatory/normative pressures
Stakeholder Theory	6	Firms' response to stakeholder concerns
Upper Echelons Theory / Leadership theories	3	Top management influence on green strategy
AMO (Ability-Motivation-Opportunity) Theory	2	Green HRM designs (ability, motivation)
Legitimacy / CSR theory	2	Gaining legitimacy via greening
Others (Resource Dependence, Diffusion, Social Exchange, etc.)	5	Rare theories applied

Sampling and Methodology:

Data Collection Methods: The literature states that most of the studies are quantitative. Most empirical studies used survey questionnaires completed by managers or executives and statistical analysis like structural equation modelling was then applied. Our keyword search yields about 40 articles that explicitly mention survey-based collection and many mention SEM or regression analysis. A small number used secondary data (e.g. environmental disclosures, financial records etc) to test the hypotheses. Almost no studies used qualitative or mixed methods such as interviews, case studies or content analysis. A few are purely literature reviews or conceptual. Two bibliometric studies have examined publication trends.

Table 7: Data collection methods used

Method	No. of articles	Example
Survey / Questionnaire	40	Questionnaires to managers, SEM analysis
Archival / Secondary Data	9	Panel regressions on firm filings
Case Study / Interviews	6	Interviews with company officials
Analytical Modelling	3	Theoretical/modelling articles
Literature Review	6	Review or conceptual framework
Bibliometric Analysis	2	Co-citation trend analyses

Sampling Methods Non-probability samples are used in most quantitative studies. For example, many surveys use convenience or purposive samples of managers in a given industry or region, rather than random samples. A few attempts – stratified or systematic sampling. The practical implication is a possible selection bias. The results may not extend to other firms or countries not surveyed. We estimate that more than 70% of empirical articles use convenience and purposive samples, with only a few referring to any randomization or robust sampling frame. Caution is advised when interpreting the results due to the heavy reliance on convenience sampling and cross-sectional design. Without representative samples, reported effects may not be observed in other contexts. This suggests the need for research studies with more rigorous sampling and research designs.

Table 8: Sampling types observed

Sampling Type	Prevalence	Remarks
Convenience/Purposive	Very common	Most survey studies target accessible manager groups e.g. local firms with no random selection.
Stratified or Random	Rare	A few studies mention stratifying by industry or using panel data of companies.
Snowball	Occasional	A couple recruited respondents via referrals.
Industry databases	Few	A few used archival databases e.g. FTSE, Bloomberg as samples.
Not reported	around 25%	Many articles do not specify methods.

Mostly used keywords:

The most common keywords apart from green initiatives and environmental performance in all the studies are listed in the table. The keyword analysis demonstrates that the literature is focused on the relationship between green initiatives and environmental performance, with environmental performance being the dominant construct across the reviewed literature. The frequent appearance of keywords such as green innovation, GHRM, and GSCM indicates that this research views environmental improvement as an outcome of organisational capabilities, employee motivation and engagement, and eco-innovation-driven practices. Also, the presence of terms such as corporate governance and ethics (Mohy-ud-Din, Shahbaz, & Khamdamov, 2025), greenwashing (Heras-Saizarbitoria, Boiral, & Diaz de Junguitu, 2020), and transformational leadership suggests a gradual shift in the literature from operational sustainability toward strategic and behavioral sustainable perspectives.

Table 9: Most used Keywords

Rank	Keyword	Frequency
1	Environmental Performance	57
2	Green Innovation	22
3	Sustainability	17
4	Green Human Resource Management (GHRM)	12
5	Green Supply Chain Management (GSCM)	10
6	Financial Performance	7
7	Sustainable Performance	7
8	Green Initiatives	6
9	Economic Performance	6
10	Greenwashing	5
11	Hospitality Industry	5
12	Corporate Governance	5
13	Environmental Management	4
14	Transformational Leadership	4
15	Environmental Regulation	4
16	Lean and Green	4
17	Operational Performance	4
18	Eco-innovation	4
19	Circular Economy	3
20	Organisational Performance	3

Contradictions and Gaps:

This study points out several inconsistencies and gaps such as conceptual level ambiguities, theory variety and mismatch, difference in measurement scales, methodological limitations etc.

Conceptual ambiguity: As above, the absence of clear definitions is a big lacuna. Articles often treat “green initiatives” as self-evident, but we now know that the term covers anything from “green HRM practices” to “sustainable supply chains” to “green bonds” and many others. This range makes comparisons difficult. We suggest that future research should begin by identifying the specific subset of green initiatives that are under scrutiny and then try to give a theoretical justification for this selection.

Theory-Method Mismatch: Many studies claim to test theory such as RBV, but do not rigorously derive hypotheses. Some theories suggest conditions under which initiatives add value e.g. RBV highlights resource heterogeneity and not tested and mentioned only. Furthermore, divergent frameworks such as isomorphic pressure vs. competitive advantage can lead to varied predictions of performance and its consequences. Researchers should be more rigorous in applying theory and testing. For

instance, do green initiatives improve performance only when rare capabilities of firms exist as per Resource Based View theory or universally because of stakeholder approval as per Institutional Theory?

Measurement and Operationalization: No standard measures for dependent and independent variables. “Environmental performance” is measured in different ways like reduction in emission levels, ISO certification or eco score etc. Similarly, green initiatives are also measured inconsistently, as some articles use counts of green practices while other articles use subjective indices. This makes it difficult to aggregate findings systematically. We recommend using or developing validated scales or a clear reporting measure and testing robustness across measures.

Methodological limitation: Causality, almost all studies are cross-sectional with self-reports of the organisations. This leads to concerns such as that well-performing firms might report more green practices than they actually practice. Very few studies employ longitudinal or experimental designs to establish causality. Future research should employ tools such as panel data, natural experiments of regulatory changes, or interventions to enhance our understanding of causal effects.

Contextual Gaps: The studies cover different countries and industries, but only few studies systematically investigate contextual moderators. A green initiative will produce different results in a heavy engineering industry than in a service industry. We invite research that isolates comparisons across contexts by country, industry, firm size etc. to identify boundary conditions.

Sampling Bias: The study shows that there is a prevalence of convenience samples, results may be biased towards well-known companies or popular industrial regions. Future SLRs or meta-analyses should code study quality as a moderator, random vs. convenience sampling. Researchers should also seek larger and more representative samples.

Over emphasis on common constructs: Certain initiatives like eco-innovation and supply chain are studied extensively, while others like green leadership and process innovations are less explored. We should encourage a diversity of focus. For example, social or policy-based initiatives such as sustainability governance, compliance and regulations.

The literature is growing, but it is very fragmented and methodologically narrow in short. While the evidence is not consistent, most studies report that green initiatives can positively impact environmental performance and indirectly financial outcomes. Findings should be interpreted in the light of these limitations by organisations.

Implications of this study:

This study presents important understanding about how green initiatives help organisations in improving their environmental performance. The findings reinforce that organisations which adopt green practices like green HRM, green packaging, eco labelling, recycling, green supply chain management and green innovation are more likely to achieve better environmental or sustainability outcomes (Wang, Zhen, Li, Ma, & Ma, 2026). It means organisations should not see green initiatives only as a legal compliance or a burden but also as a long-term business strategy for better financial outcomes.

The study is useful for managers because it helps them understand which green practices are heavily linked with positive environmental performance of the organisation. Managers can lead by example and also can focus more on employee engagement and involvement, green training and development, green rewards and sustainable operational practices to improve overall environmental responsibility and accountability in the organisation.

This review is also helpful for policymakers and government authorities as the findings suggest that proper environmental regulations, rewards and support systems can encourage organisations to adopt more sustainable practices. In many developing countries, organisations still face difficulties in implementing green initiatives because of lack of support, resources and awareness. Therefore, stronger policies and incentives may help organisations perform better in this regard. For researchers, this study provides an overview of the current literature and identifies important gaps. The review revealed that many studies are concentrated in China or India, while other regions are less studied. Future researchers can conduct studies in other countries and industries for better generalization of results.

The study also highlights that there is confusion in defining concepts like green initiatives and environmental performance in a standard manner. Therefore, the future studies should develop more clear and standard definitions. More qualitative and longitudinal studies are also needed because most of the existing articles used survey methods only. Overall, this study adds to the growing literature on sustainability and highlights that green initiatives are becoming very important for both environmental protection and organisational success in every sector.

Table 10: Future Research Recommendations as Per the TCCM Framework

TCCM Dimension	Future Recommendations
Theory	Most of the studies used theories like Resource-Based View, Institutional theory and Stakeholder theory. Future researchers can use other theories like Dynamic Capability theory, theory of planned behaviour, Ability-Motivation-Opportunity theory and Behavioural theory. This will help in understanding green initiatives from different perspectives. Multiple studies focused on strategy and performance only, but less importance was given to employees' behaviour and other social aspects.
Context	Most of the studies were conducted in countries like China, India and other Asian countries. More studies can be done in African and Latin American countries as very little research is available there. Most articles are from the manufacturing sector, so future studies can focus on healthcare, education, agriculture, tourism, hospitality and IT industries also. SMEs and family businesses are also under explored.
Characteristics	The review revealed that many articles used terms like green initiatives, green practices, eco-initiatives, sustainable initiatives and sustainability practices interchangeably. Because of this, there is confusion in defining these concepts properly. Future studies should develop clear definitions and common measurement scales for measuring the green initiatives and their impact on human health. Researchers should also study constructs like green rewards, green culture, ecological leadership, cradle to cradle concept, employee green behavior and circular economy practices more deeply.
Methodology	Multiple studies used quantitative survey method with convenience sampling as a sampling method. It has its own drawbacks as discussed. Future research should use longitudinal studies and mixed methods i.e. quantitative and qualitative for better understanding. More qualitative studies like case studies and interviews would be appreciated as they can provide deeper and reliable insights. Researchers could also use advanced techniques like SEM and machine learning methods. Some studies used a small sample size, they should use a larger sample size.

This TCCM analysis shows that the study and literature on green initiatives and environmental performance have matured substantially in terms of empirical evidence but still remains ambiguous conceptually and methodically. Existing studies emphasize predominantly on operational green practices and strategic capability development while ignoring behavioural, intentional, and socio-cultural dimensions of sustainability. Moreover, the dependence on cross-sectional surveys and migratorily Asian manufacturing contexts restricts the generalizability of findings. This review shows more use of the Resource-Based View (RBV and NRBV) and Institutional/Stakeholder theories, and also occasional Social Exchange, AMO.

Therefore, future scholars must look towards interdisciplinary, multi-theory-integrated, and context-specific approaches that can explain not only whether green initiatives improve environmental performance or not. Additionally, how, why, and under what organisational conditions such improvements happen.

Recommendations: We recommend future research to (1) try and standardize definitions of green initiatives and environmental performance, at least in manufacturing context; (2) clearly test the mediating and moderating variables suggested by theory; (3) use more strong methods like longitudinal designs, multiple sources of data, and diverse sampling; and (4) integrate findings using meta-analysis to resolve contradictions. Done well, it will build the field's capacity to advise on effective green strategies.

CONCLUSION:

This systematic literature review analysed 133 research articles from Scopus and Web of Science databases to understand the relationship between green initiatives and environmental performance using the TCCM framework. This review shows that

research in this area has increased very rapidly in the last decade because due to compliance and self-motivations as well, organisations are now giving more importance to sustainability, environmental responsibility and long-term business survival.

The findings suggest that green initiatives such as green rewards, green HRM, green supply chain management, green innovation, sustainable manufacturing and environmental management practices generally have a positive impact on environmental performance. Many studies also showed that these initiatives improve organisational performance, competitive advantage and employee commitment towards sustainability at workplace and outside as well. Among all the constructs, environmental performance, green innovation and GHRM were the most studied variables.

The review saw that most studies were conducted in countries such as India and China, mainly in manufacturing and other industrial sectors. Quantitative research methods and convenience sampling were used in most of the articles. Theories like resource-based view of a firm and stakeholder theory were very widely tested to explain the relationship between green practices and environmental performance outcomes. However, this review also highlights some important gaps in the literature till now. Multiple studies used the terms green initiatives, green practices and sustainability practices as synonyms, which gives rise to conceptual confusion. There is little research from developing regions outside Asia and limited use of qualitative and longitudinal methods is also seen. Employee behavioural aspects and social sustainability dimensions are also comparatively less researched. Future research should also focus on Agri industry and the root cause of their contribution in pollution. Researchers should focus on integrating consumer psychology, sustainable farming practices, and organizational performance metrics, with special attention to India's growing organic sector and global innovations in precision agriculture. In short, this SLR provides a comprehensive knowledge of how green initiatives contribute towards environmental performance and sustainable development of an organisation in various industry. The study also gives useful pointers for interested researchers, managers and policymakers who are working towards creating more environmentally responsible organisations. Even though the field has grown significantly, more theoretical clarity is needed and methodological diversity is also needed for better understanding of sustainable practices in different organisations.

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