

Review

Corporate social responsibility as the pathway towards sustainability: a state-of-the-art review in Asia economics

Keyi Zhang¹ · Xinyue Hao²

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Abstract

In the evolving global business environment, corporate social responsibility (CSR) has transitioned from being a philanthropic effort to a critical strategic necessity, particularly within Asian economies. Despite the increasing importance of CSR, the literature examining its application and impact in Asia remains both sparse and fragmented. This study addresses this gap by conducting a systematic literature review (SLR) of 79 scholarly articles, adhering to PRISMA guidelines, to ensure a comprehensive and replicable analysis of CSR practices within Asian corporate entities. The review uncovers key themes related to the integration of CSR into corporate governance structures, including the emphasis on renewable energy, ethical business conduct, employee engagement, and data privacy, while highlighting the distinct challenges and opportunities faced by Asian companies given their unique cultural, social, and regulatory landscapes. The findings indicate that although Asian firms are increasingly incorporating CSR into their strategies, there is a significant need for more robust evaluation frameworks, particularly concerning biodiversity, deforestation, and collaboration with conservation organizations. Looking ahead, the study emphasizes the importance of prioritizing renewable energy as a critical environmental focus across Asia, especially given the region's rapid urbanization and industrial growth. The transition to renewable energy sources is not only vital for mitigating environmental impacts and combating climate change but also presents long-term economic benefits. Additionally, the study identifies a substantial growth in digital adoption across various sectors in Asia, underscoring the need for stronger cybersecurity measures to protect emerging digital infrastructures. Culturally and socially, many Asian countries show a natural inclination towards sustainability, which can be leveraged to foster greater acceptance and integration of renewable energy at the grassroots level. Furthermore, the study advocates for enhanced collaboration within Asia and on a global scale to facilitate knowledge transfer, share best practices, and achieve economies of scale in renewable energy projects. Such joint efforts could accelerate the transition to sustainable energy and help overcome challenges related to technology, finance, and policymaking. These insights are essential for both scholars and practitioners aiming to align CSR practices with global sustainability goals, thereby fostering responsible corporate behaviour across diverse sectors in Asia.

Keywords Corporate social responsibility (CSR) · Environmental, social and governance (ESG) · Asian economies · Business strategy · Regional adaptation

✉ Keyi Zhang, Christinezhang2003@163.com; ✉ Xinyue Hao, Haox2@cardiff.ac.uk | ¹University of Warwick, Coventry, UK. ²Cardiff University, Cardiff, UK.



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1 Introduction

In the contemporary global business landscape, corporate social responsibility (CSR) has transitioned from being viewed merely as a philanthropic initiative to being recognized as a strategic necessity [1–3]. While definitions of CSR vary, a common thread is the emphasis on organizations actively considering the well-being of individuals, communities, and the environment beyond their legal duties [4]. This perspective began gaining traction in academic literature during the mid-twentieth century, with pioneers like Howard R. Bowen postulating that organizations held responsibilities that extended beyond profit generation [5]. A central debate in this discourse centres on the potential conflict between upholding broader social and environmental commitments and ensuring shareholder profitability [6]. Carr [7] typifies the “pure profit-making view”, noting an implicit acceptance of a modicum of deceit in the business world, rooted in the notion that industry professionals might be held to a different ethical benchmark than the broader public. Contrasting this stance, perspectives from Friedman [8] and Székely and Knirsch [9] posit that enterprises have the capacity to foster social welfare, address environmental challenges, and still ensure profitability. Notably, while the expenditures associated with CSR may be immediate or recurrent, the advantages, ranging from enhanced brand perception and employee morale to risk management, manifest in the long run [10]. A growing recognition of this paradigm shift is evident in Asian companies, reflecting an understanding that contemporary enterprises must respond to the heightened consumer consciousness regarding environmental degradation, socioeconomic disparities, and ethical imperatives [11].

The rising prominence of CSR within the business sphere notwithstanding, literature examining its varied execution and its impacts across numerous Asian economies remains conspicuously sparse [12]. This can be attributed to the relatively nascent foray of Asia into corporate responsibility, especially when juxtaposed against the longer-standing engagement of Western regions. For perspective, while discussions on CSR in the United States trace back to the 1950s, concentrated exploration of Asian CSR efforts primarily emerged in the 1990s, highlighting the fledgling phase of regions in this domain. Additionally, the distinct cultural and national landscapes across Asia imply that businesses cannot merely replicate Western paradigms; instead, they must navigate the unique challenges, prospects, and cultural nuances inherent to the continent [13]. This lag has resulted in a research landscape where insights into CSR practices in Asian contexts are not only nascent but also fragmented. Current studies often confine their analyses to individual nations such as China, Japan, or India, or narrowly focus on the more developed Asian states, thus offering a fragmented insight into how Asian enterprises address the interwoven economic, social, and environmental dimensions via CSR [14, 15]. This narrow scope fails to capture the diverse and complex ways in which CSR is integrated across different Asian economies, each with unique cultural, social, and regulatory landscapes. Such studies typically do not account for the holistic integration of CSR into the corporate governance structures prevalent in various Asian countries, nor do they sufficiently explore the distinct challenges and opportunities that these countries face in implementing CSR initiatives. With Asian economies in a state of dynamic evolution, there exists an imperative for contemporary evaluations of the CSR terrain, documenting emergent patterns and evolutions in practice. In response, this paper seeks to address these critical gaps by conducting a systematic literature review to document and analyse the current state of CSR in Asia, aiming to uncover emergent patterns, practices, and their implications for sustainable business practices [16]. By doing so, it contributes to the understanding of how CSR can evolve as a strategic and ethical tool tailored to the specific needs and conditions of Asian economies [17].

While much has been explored about CSR in a global economic context, its specific implications within Asian countries have not been as prominently discussed. This study seeks to deepen the understanding within the domain of Asian corporate management by highlighting current trends and broadening the research spectrum on CSR in this region. To this end, the research focuses on two pivotal questions: *RQ1: How does the existing literature characterize the main themes related to corporate governance structures and their association with CSR initiatives in Asian nations?* *RQ2: From the comprehensive body of research, are there identifiable patterns, gaps, and potential future directions concerning the outcomes and effectiveness of CSR actions in Asia?* To provide answers, a systematic literature review was conducted, leading to a detailed descriptive and thematic analysis of a handpicked selection of academic articles focused on CSR practices in Asia.

This research provides substantial contributions to both the theoretical landscape and practical application of CSR and Environmental, Social, and Governance (ESG) performance, with a specific focus on the Asian market. Theoretically, it advances the understanding of CSR by developing a comprehensive framework that categorizes CSR activities into environmental, social, and governance dimensions. Using a grounded theory-based thematic analysis, this study

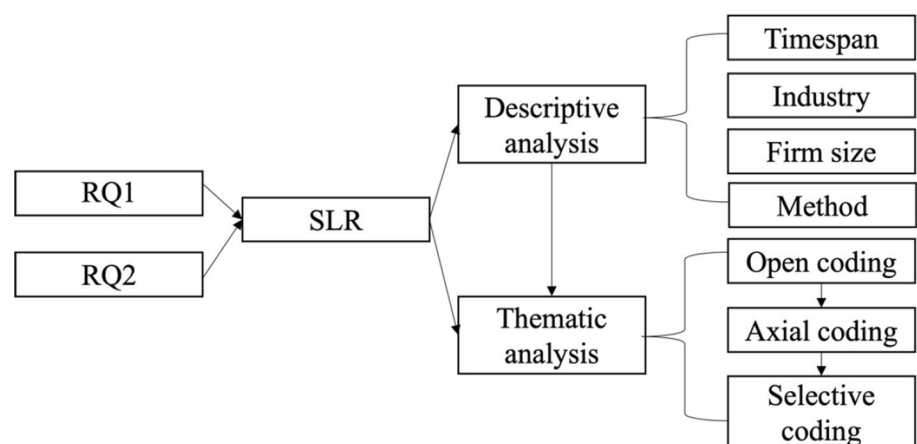
dissects these dimensions through multiple coding phases, revealing key themes such as renewable energy adoption, business ethics, employee engagement, and governance structures like board diversity and tax transparency. These insights help address critical gaps in the literature, particularly in the areas of biodiversity, waste management, and the role of transparency in corporate governance. The study emphasizes the importance of these themes in emerging Asian economies, where businesses are increasingly recognizing the need to align their operations with sustainable development goals. On a practical level, the findings offer detailed recommendations for businesses on how to integrate CSR into their core strategies, tailored specifically to different industries and firm sizes. For example, the analysis highlights the growing relevance of renewable energy solutions for sectors like manufacturing and tourism, where environmental impact is a major concern. It also provides actionable insights for enhancing employee satisfaction and engagement, particularly within small and medium-sized enterprises (SMEs) and large enterprises, which dominate the CSR discourse in Asia. Furthermore, this study underscores the importance of governance practices, such as ensuring board diversity and implementing transparent tax strategies, as essential elements for fostering ethical business operations. The research also makes a methodological contribution by showcasing how secondary data analysis and mixed methods can be effectively used to study CSR across various sectors, providing a clear roadmap for future research. By offering both theoretical advancements and practical insights, this study fills a notable gap in the contemporary literature and provides a strategic guide for businesses and policymakers aiming to implement effective and sustainable CSR practices in the rapidly evolving Asian market.

The paper is structured as follows: it begins with an introduction, followed by a detailed explanation of the methodology, which includes both descriptive and thematic analysis. These analyses systematically examine the selected literature, breaking it down into its core components. In Sect. 3, the paper provides a synthesis and critical discussion of the findings from the literature review. The final sections present the propositions, research limitations, conclusions, and recommendations for future research.

2 Methodology

To ensure the replicability of this study, a tiered methodology was adopted, incorporating both descriptive and thematic analyses within the SLR framework. Each stage of the research process was designed with transparency, enabling other researchers to follow the same steps and arrive at comparable results (Shown in Fig. 1). The descriptive analysis systematically categorized the reviewed literature based on objective parameters such as timespan, industry, firm size, and methodology. These categories were clearly defined and linked to specific criteria that can be replicated in future studies, ensuring that researchers can apply similar filters to their datasets. The thematic analysis was conducted using a grounded theory approach, which entailed open, axial, and selective coding. This three-tier coding process allows for replicability by clearly outlining how codes are generated from raw data, categorized into higher-level themes, and synthesized into overarching conclusions. By utilizing dual-coding, wherein two independent researchers cross-verified each coding decision, the study minimized subjective bias, making the findings more reliable and reproducible. Furthermore, the inclusion and exclusion criteria used for article selection, as well as the search strategies across databases, were explicitly defined, ensuring that future researchers can replicate the article selection process. The standardized tools

Fig. 1 Overview of the method



for managing duplicates and screening for relevance provide additional layers of consistency and transparency, crucial for reproducibility. By carefully documenting each phase of the research process, from article identification to thematic synthesis, this study sets a clear roadmap for replication in similar CSR contexts, both within and beyond Asian markets.

In order to comprehensively understand the existing CSR and ESG performance measures research in Asian firms, the paper conducted a systematic literature review that adhered to the Preferred Reporting in Systematic Review and Meta-Analysis (PRISMA) guidelines [18]. PRISMA recommended guideline includes a 27-item checklist to collect, examine, and reanalyse individual-level data from all studies that address a certain research issue and is hence regarded as the gold standard approach to evidence synthesis [19] applied to sustainable innovation business and management disciplines [20, 21]. Compared with a narrative review which helps identify patterns and trends in the literature to identify gaps or inconsistencies in a body of knowledge, it is widely criticized for being singularly descriptive [22]. PRISMA guidelines differ from narrative reviews by using a transparent, scientific, and replicable process that minimises bias through a comprehensive literature search of the research. While there are research papers that use bibliometric software to analyse ESG globally [23], this paper focuses on the ESG performance of Asian companies. Furthermore, to ensure its currency and relevance, the PRISMA 2009 statement from 2017 incorporates updates and advances in systematic review methodology and terminology over the past decade [24]. The widespread use of PRISMA in business management assists organizations in making evidence-based decisions and improves the overall effectiveness of their strategies and practices [25]. To ensure the interpretability and replicability of this article, a four-stage process was implemented following the PRISMA flow diagram (Fig. 2), which includes the following stages: identification of articles for review, screening of articles, assessment of study eligibility, and final selection of studies to be included in the systematic review.

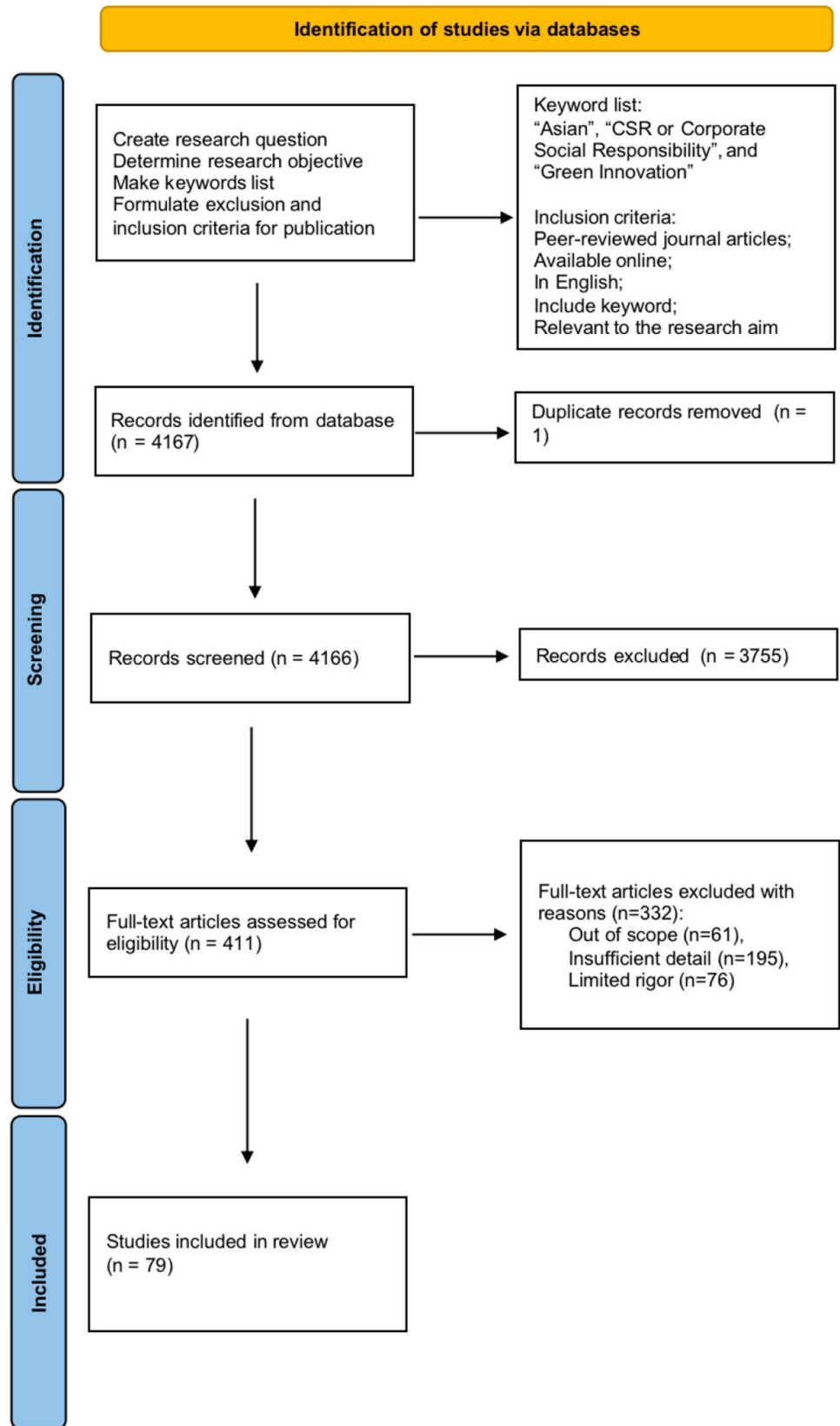
Identification Stage: This stage entails creating the research question, the research objective, a keyword list, and the inclusion and exclusion criteria for publications. This research aims to form a greater understanding of the ESG performance of Asian companies. Several keywords pertinent to the topic were created based on this objective research aim and question: "Asian", "CSR or Corporate Social Responsibility", and "Green Innovation" which were chosen not only for their direct relevance on CSR. These keywords were selected using Boolean operators such as "AND" and "OR" to combine and refine the search results effectively [26]. The inclusion and exclusion criteria included in the articles followed the guidelines outlined by Denyer and Tranfield [27]. The inclusion criteria were intended to be peer-reviewed journal articles; that were available online; and in English; must include at least one predefined keyword from each subset in their title, abstract, or keywords; and had relevance with respect to the research aim. Conversely, the exclusion criteria were strictly defined to omit articles outside the scope of ESG, such as those lacking empirical data or focusing on unrelated geographical regions. The search engine covered three bibliographic repositories, including Scopus, ScienceDirect, and Web of Science. These three databases have comprehensive coverage that provides access to a vast amount of scholarly literature [28]. Additionally, these platforms were selected not only for their content but also for their advanced search capabilities, including citation tracking and cross-referencing, which are essential for conducting thorough literature reviews. This selection enabled us to employ sophisticated search algorithms tailored to retrieve only the most pertinent articles, ensuring efficient use of resources and time. This initial search did not restrict specific periods. The keyword search was conducted in August 2023 and obtained 4167 results that satisfied the search criteria.

Screening Stage: To manage duplication, which is a common issue in large digital databases, we employed bibliometric tools within Scopus, ScienceDirect, and Web of Science. These tools automatically identified and removed duplicates, resulting in 4166 unique papers. A date filter was applied to focus on studies published between 2000 and 2023, which narrowed the search leaving 3874 results. This period was chosen because it encompasses significant advancements in ESG practices, marked by important technological and regulatory changes, globalization, and economic shifts, particularly in Asian contexts. The subsequent screening involved the application of predefined inclusion criteria using advanced database filtering options. Articles that were peer-reviewed and available online were selected, criteria that are essential for ensuring the credibility and accessibility of the research. This filtering refined the pool to 1631 articles. Content analysis was utilized to check whether titles, abstracts, and keywords verified compliance with the inclusion criteria. To ensure the focus remained tightly aligned with the research objectives, the pool was further refined by categorizing articles into relevant academic disciplines: Social Science & Business, Management, Accounting & Economics, Econometrics, and Finance. This was achieved through database categorization features, which classify articles based on their content and focus area, reducing the number to 411 relevant articles.

Specific database contributions were as follows:

- Scopus: Contributed 1300 articles, of which 300 met the final inclusion criteria.
- ScienceDirect: Contributed 1500 articles, of which 61 met the final inclusion criteria.

Fig. 2 PRISMA flow diagram



- Web of Science: Contributed 1367 articles, of which 50 met the final inclusion criteria.

Eligibility Stage: In the eligibility stage, the full texts of the remaining articles were thoroughly evaluated for their relevance to the research objectives and for methodological rigor. Out of the 411 articles reviewed, a total of 332 were excluded for various reasons. Specifically, 61 articles were excluded as they were deemed outside the scope of ESG, 195 articles were removed due to insufficient methodological details, and 76 articles were excluded for lacking the necessary methodological rigor. This rigorous screening process ensured that only the most relevant and robust studies were considered eligible for inclusion in the final review.

Included Stage: The remaining 79 articles underwent a meticulous ‘eyeballing’ process, where each article was individually reviewed to confirm its consistency with the research theme, as well as the accuracy of the keyword relevance. This stage involved at least two independent reviewers assessing each article, a method known as dual-review [29, 30], which significantly reduces the risk of selection bias. This is a critical part of the systematic review process as it ensures a high level of rigor and reliability in the study selection process. Reviewers used a standardized form to document their evaluations and reasons for inclusion or exclusion, which not only provided a clear audit trail for the research process but also facilitated the subsequent meta-analysis by ensuring the consistency and relevance of selected studies.

2.1 Descriptive analysis

After refining the database of documents, this research carried out descriptive analyses to determine key parameters: the year of publication, industry relevance, firm size, and the research methodologies applied. Building on this foundation, our study utilizes a comprehensive thematic analysis rooted in theory to dissect the complexities of CSR. The exploration is methodically segmented into three stages: open, axial, and selective coding, providing a structured approach to delve deeper into the intricacies of CSR.

Research on CSR and ESG performance disclosure has garnered increased focus within the academic community. Current research databases indicate a notable volume of papers published between 2011 and 2023. While data collection began in 2000, the first piece on this subject only appeared in 2011, likely due to the slower pace of economic progression in Asia during the earlier years (Fig. 3). The trajectory of research demonstrated notable spurts, particularly starting in 2013 and again in 2019. Initial publications included 2 articles in 2011, followed by 6 in 2012, and a modest increase through 2016, culminating in 10 articles that year. Interestingly, there was a plateau with only a single publication each year from 2017 to 2019. This reduction in research output could be attributed to shifting research priorities or external factors influencing the field. However, a resurgence was observed with 5 articles in 2020, 3 in 2021, and a remarkable uptick in 2022, seeing 19 articles. This renewed interest in ESG performance underscores its growing relevance in the business sector. Both companies and their investors recognize its importance, signalling a burgeoning research domain with promising prospects for future exploration.

In our curated document database, we categorized each paper based on the industry it focused on to discern potential connections between various sectors. Using classifications from the International Labour Organization, companies referenced in the studies were distributed across 12 distinct industry types, determined by their primary business focus. Predominantly, research gravitated towards the hotels, tourism, and catering sectors. This can be attributed to the fact that within these industries, CSR perceptions of employees play a pivotal role in job satisfaction. Given the nature of tourism companies, internal stakeholders, such as employees, are vital for securing a competitive

Fig. 3 Distribution of articles over time (Until August 2023)

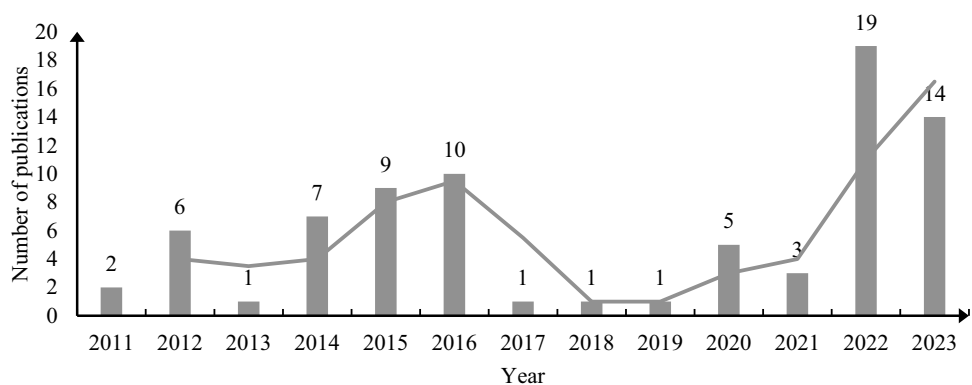
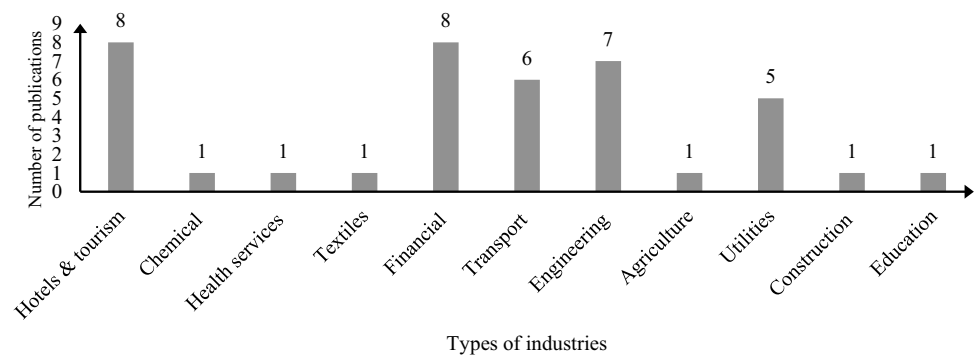
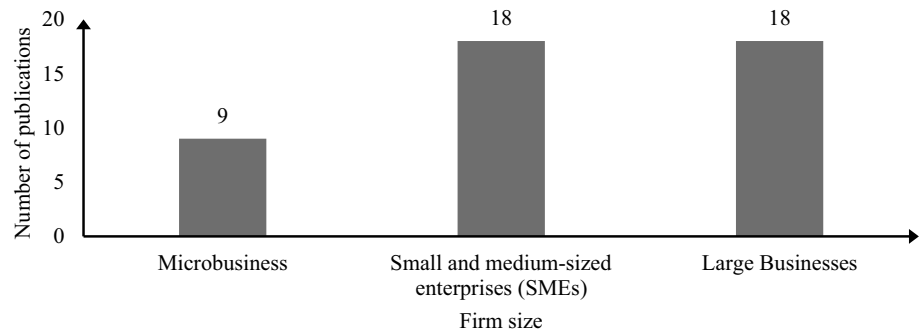


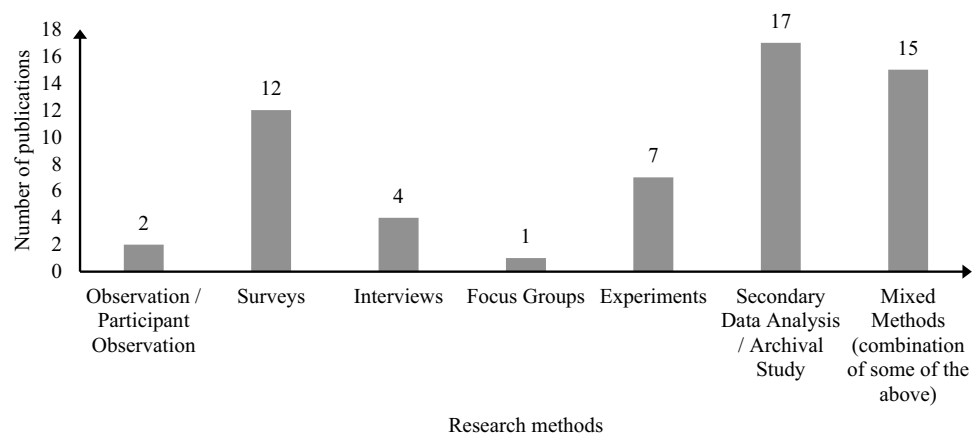
Fig. 4 The distribution of different industry**Fig. 5** The distribution of different firm sizes

edge [31]. Similarly, the financial service industry has been a significant focal point, given its instrumental influence on the environmental and social initiatives of other sectors, driven by its investment and lending practices [32, 33]. On the contrary, industries like chemicals, health services, textiles, agriculture, construction, and education saw limited research. Just one study was identified for each of these sectors, possibly due to the lack of a strong correlation between employee satisfaction and organizational growth in these areas. Lastly, research concerning mechanical engineering, transport, and utility industries showed a more balanced representation, with 7, 6, and 5 studies respectively. These findings hint at the diverse research challenges and objectives across different industrial landscapes, as depicted in Fig. 4.

Firm size is undeniably a crucial aspect of business structure, playing a significant role in entrepreneurial innovation and overall competitiveness. Drawing from the classification guidelines by Csabay and Stehlikova [34], companies in the database were divided into three categories: microbusinesses, SMEs, and large enterprises. A classification of the firm is determined based on total assets, sales, and market capitalization. Specifically, businesses with fewer than 10 employees, fall under the microbusiness category; those with up to 249 employees, such as retail stores, are termed SMEs; and entities with over 250 employees, akin to global corporations, are considered large enterprises (Forth et al., 2006). As illustrated in Fig. 5, current research on CSR predominantly centres around SMEs (40%) and large enterprises (40%), with microbusinesses receiving less attention (20%). This discrepancy is likely due to the prevailing notion that CSR initiatives are typically associated with larger businesses.

In the present study, based on Vogt, Gardner [35], research methodologies were categorized into seven distinct types: observation, surveys, interviews, focus groups, experiments, secondary data analysis, and mixed methods. It is essential to recognize that the selection of research methods in past reviews varies and each comes with its own set of constraints. Consequently, the research method should align with the objectives [36]. The distribution of these methods across the analysed studies is illustrated in Fig. 6. Breaking it down, 29.3% (17 articles) employed secondary data analysis in their research. This was closely followed by mixed methods, accounting for 26% (15 articles), and surveys, representing 21% (12 articles). Experimental methods were utilized in 12% (7 articles). Further, the methodologies of observation, interviews, and focus groups were less frequently employed with 2, 4, and 1 article respectively. A prominent trend in CSR research is the use of data previously gathered by other researchers. This is primarily done to steer the study towards a different objective from the original intent, making secondary analysis or mixed methods popular choices [37]. Moreover, to gauge employee satisfaction, surveys remain a prevalent research tool.

Fig. 6 Distribution of research methods



2.2 Thematic analysis

To construct a comprehensive landscape of the chosen literature, thereby elucidating previously uncharted or misunderstood concepts, patterns, and interconnections, this study employs a thematic analysis anchored in grounded theory. This approach is segmented into three distinct phases: open, axial, and selective [38]. Thematic analysis, with its structured yet flexible methodology, facilitates the extraction of codes and themes from qualitative datasets [39]. Given the intricate nature of CSR inquiries, which often probe the multifarious facets of the ESG repercussions, thematic analysis becomes an indispensable tool. It empowers researchers to delve profoundly into the corpus, discerning salient themes, patterns, and subtleties associated with CSR strategies and their subsequent outcomes [40–42].

The first echelon, open coding, entails line-by-line data scrutiny, therein discerning core concepts and crafting preliminary codes. This stage is crucial for identifying fundamental concepts and developing preliminary codes that form the backbone of our thematic analysis. Within the context of the present investigation, terms like “Climate change and carbon emissions”, “Renewable energy”, and “A balance between profitability and sustainability” have been earmarked as foundational codes, given their encompassing purview due to their central relevance to our research objectives. This rigorous process entailed multiple iterations where codes were continuously refined and adjusted to reflect the underlying data and ensure comprehensive coverage of all potential thematic elements more accurately. To enhance the transparency and replicability of the coding process, a dual-coding system was employed, wherein two independent researchers analysed the data. This was followed by a reconciliation discussion to resolve any discrepancies, thereby enhancing the reliability of the coding, and ensuring that the derived themes were robustly supported by the data.

After this, the axial coding phase seeks to weave interrelations amongst these codes, thereby foregrounding cardinal sustainability concepts and correlating codes which are divided into three main categories: environmental performance, social performance, and governance performance [43]. To illustrate, the thematic cluster of environmental performance delves into the corporate eco-impact, shedding light on potential environmental risks and their management strategies [44]. The study examines ‘Deforestation’ [44], where strategies to combat forest degradation are linked with broader environmental sustainability policies, alongside ‘Renewable Energy’ [45–51], where shifts toward sustainable energy sources are assessed for their corporate and ecological impact. The ‘Biodiversity’ code [52, 53] explores corporate effects on natural habitats, emphasizing partnerships with conservation bodies. The social performance dimension examines the corporate footprint within its societal milieu. This typically encompasses engagements with diverse internal and external stakeholders, underscored by themes of inclusivity, community integration, and socio-economic parity [45]. ‘Employee Engagement’ [44, 46, 68–71] highlights initiatives encouraging sustainability within corporate culture, while ‘Supply Chain Transparency’ [51, 72, 73] discusses the transparency in operations essential for ethical business practices and ‘Privacy and Data Security’ [56, 59, 66, 78] tackles how companies handle sensitive information, ensuring compliance and ethical standards. Concurrently, governance performance, as a category, emphasizes the corporate governance ethos, spotlighting transparent accounting procedures, executive selection predicated on ethical and diversity criteria, and overarching shareholder accountability [3, 4]. ‘Board Diversity’ [53, 55, 59, 83] explores how diverse leadership contributes to enhanced sustainability strategies,

while ‘Executive Compensation’ [59, 81, 85] analyses how remuneration structures incentivize sustainable practices. Additionally, ‘Anti-Competitive Practices’ [89, 90] are analysed to understand corporate ethics in competitive environments. This phase not only refines the thematic links between individual sustainability practices but also illustrates the complex interdependencies that underpin corporate sustainability strategies, setting the stage for the selective coding phase where these themes are synthesized into a comprehensive narrative.

Afterwards, the coding phase synthesizes the outputs of both open and axial codings. By emphasizing the primary phenomenon and key category that encompasses the majority of the data, it produces a coherent CSR framework. [46]. This phase integrates the broader themes of environmental sustainability, social performance, and ethical governance, showcasing how each stream contributes to the overarching CSR objectives. By mapping these interconnections, the study delineates a comprehensive CSR model whose synthesis not only highlights the individual contributions of each domain to CSR but also their collective impact on enhancing corporate accountability and ethical stature in the business landscape [47].

Table 1 organizes the extracted open codes from the thematic analysis within the triad of ESG dimensions, delineating specific practices pertinent to each category. Under the Environmental dimension, several initiatives contributing positively to ecological sustainability are identified: practices combating deforestation; advocacy for and utilization of renewable energy sources; biodiversity preservation strategies; partnerships with wildlife and nature conservation entities; an equilibrium approach between economic profitability and environmental sustainability; policies focusing on efficient waste management and minimization; proactive involvement in climate change mitigation and carbon footprint reduction; and commitments to safeguarding and sustaining natural resources. In the context of social performance, the analysis underscores a spectrum of practices advantageous to societal welfare. These encompass strategies for bolstering employee engagement; ensuring transparency throughout the supply chain; stringent adherence to product safety and quality standards; robust mechanisms for privacy and data security; comprehensive programs for employee skill enhancement and professional development; dedication to maintaining healthy and safe work environments; initiatives promoting gender equity and embracing diversity; and a staunch commitment to upholding human rights. Regarding

Table 1 Grounded theory-based tri-level coding

Selective coding	Axial coding	Open coding	Citations
CSR	Environmental performance	Deforestation	[48]
		Renewable energy	[49–55]
		Biodiversity	[56, 57]
		Collaborate with wildlife and nature conservation organisations	[56]
		A balance between profitability and sustainability	[58–61]
		Waste management	[62–65]
		Climate change and carbon emissions	[65–69]
		Protect natural resources	[55, 64, 70, 71]
	Social performance	Employee engagement	[48, 50, 72–75]
		Supply chain transparency	[55, 76, 77]
		Product safety and quality	[59, 72, 78–81]
		Privacy and data security	[60, 63, 70, 82]
		Employment training and development	[72, 73, 75, 83]
		A healthy working condition	[58, 72, 75, 82, 84]
		Gender and diversity	[56, 60, 66]
	Governance performance	Human rights	[59, 82, 85, 86]
		Board diversity	[57, 59, 63, 87]
		Tax transparency and strategy	[49, 69, 86, 88]
		Donations and political lobbying	[48]
		Audit committee structure	[66, 73, 89–92]
Executive compensation	[63, 66, 85, 89]		
Anti-competitive practices	[93, 94]		
Business ethics and conduct	[50, 60, 82, 87, 95–97]		

Governance performance, the analysis elucidates several codes indicative of effective corporate stewardship. These include a commitment to board diversity, ensuring representation and varied perspectives in decision-making; transparent tax strategies and disclosures; responsible approaches to donations and political lobbying, maintaining corporate integrity and public trust; an audit committee structure that underscores accountability and oversight; balanced executive compensation aligned with shareholder interests and corporate performance; policies to deter anti-competitive practices and promote fair business competition; and a rigorous emphasis on business ethics and conduct, thereby solidifying a foundation of corporate probity and responsibility.

Table 2 delineates a comprehensive database encapsulating the utilization of diverse CSR codes or criteria within the ambit of ESG dimensions. This tabulation offers insights regarding the frequency of application for each code, alongside its relative percentage in the context of the cumulative codes employed. A salient observation is the predominance of the “Renewable Energy” code, claiming a notable 7.7% of the total applications, underscoring the pronounced inclination of the dataset towards sustainable energy practices. Similarly, “Business Ethics and Conduct” mirrors this prominence, occupying 7.7%, thereby emphasizing the paramount importance of ethical business protocols. In stark contrast, areas such as “Deforestation”, “Collaboration with Wildlife and Nature Conservation Organizations”, and “Donations and Political Lobbying” are represented minimally, each constituting a mere 1.1%. This delineates the narrow emphasis of the dataset on these domains.

3 Results & discussion

The preceding sections of this paper have systematically examined the multifaceted dimensions of CSR within Asian economies, with a particular emphasis on historical development, key thematic areas, and methodological approaches derived from an extensive literature review. As the discussion section commences, it is essential to synthesize these findings and critically evaluate their implications within the broader context of evolving significance of CSR in the region. This section will explore the interconnections between CSR practices and broader economic, social, and environmental outcomes in Asia and directly engage with the research questions of this study. By analysing the identified themes such

Table 2 Frequency and proportional representation of codes in citations

Applied coding	Number of citations	Proportion
Deforestation	1	1.1%
Renewable energy	7	7.7%
Biodiversity	2	2.2%
Collaborate with wildlife and nature conservation organisations	1	1.1%
A balance between profitability and sustainability	4	4.4%
Waste management	4	4.4%
Climate change and carbon emissions	5	5.5%
Protect natural resources	4	4.4%
Employee engagement	6	6.6%
Supply chain transparency	3	3.3%
Product safety and quality	6	6.6%
Privacy and data security	4	4.4%
Employment training and development	4	4.4%
A healthy working condition	5	5.5%
Gender and diversity	3	3.3%
Human rights	4	4.4%
Board diversity	4	4.4%
Tax transparency and strategy	4	4.4%
Donations and political lobbying	1	1.1%
Audit committee structure	6	6.6%
Executive compensation	4	4.4%
Anti-competitive practices	2	2.2%
Business ethics and conduct	7	7.7%

as the adoption of renewable energy, the adherence to ethical business conduct, and the effectiveness of governance structures, this discussion seeks to provide a nuanced understanding of how these practices contribute to sustainable enterprise development within this dynamic and culturally diverse context. Furthermore, this section will address the challenges and opportunities that arise from these findings, offering insights into potential directions for future research and the continuing evolution of CSR in Asia.

To answer RQ1, the literature on CSR in Asia reveals several key themes related to corporate governance structures. From a developmental perspective spanning long durations, the principles of “Business ethics and conduct” remain central to corporate governance, bearing complex implications [60, 82]. Trust, built on the bedrock of ethical business behaviours, forms the linchpin for maintaining enduring relationships within an organization and its myriad stakeholders—employees, customers, investors, suppliers, and the overarching societal framework. Ethical governance cultivates a reputation marked by credibility [98]. Several Asian nations have instituted regulatory frameworks that mandate adherence to ethical and legal standards by businesses [95, 96]. Observing these regulations transcends mere legal compliance, crystallizing into the very essence of responsible corporate stewardship. Averting practices that might offer fleeting advantages but risk tarnishing the reputation of the company ensures a trajectory characterized by stability and continued expansion [87, 97]. “Employee engagement” stands as a potent determinant influencing governance and its journey toward sustained growth. Prioritizing this facet within CSR initiatives, companies attempt to sculpt environments where employees resonate with feelings of appreciation, empowerment, and motivation. Engaged employees often experience elevated job satisfaction and holistic well-being, culminating in societal benefits, including augmented productivity and dedication to tasks [50, 74]. Additionally, high levels of employee engagement are often associated with lower turnover rates [72, 73]. This stability in employment contributes to social stability within communities [75]. They are more likely to go the extra mile, which not only benefits the organization but also contributes to economic and social development by boosting overall productivity levels. [48]. Also at the corporate governance level, the “Audit committee structure” ensures that the CSR activities of the company are conducted ethically, transparently, and in compliance with regulations. CSR activities often involve inherent risks, including reputational risks related to ethical or environmental issues [73]. The role of the audit committee includes assessing and managing risks, which can help prevent CSR-related incidents and mitigate the potential social and financial impacts of such incidents [91]. Transparent reporting is essential in CSR because it helps stakeholders, including investors and the public, understand how the company is addressing social and environmental issues [90, 92]. As more CSR initiatives are subject to regulations and reporting requirements, the role of the audit committee in overseeing CSR becomes increasingly significant. Not only do companies need to focus on the internal structure of the company, but they also need to pay attention to “Product safety and quality” as one of the conditions for attracting customers. It is critical to ensure the safety and quality of products in order to protect customer health and well-being [59, 79]. Prioritizing product safety and quality displays a dedication to ethical business practices as well as respect for the rights and well-being of customers [72]. High-quality and safe products help firms and consumers create trust. Unsafe or low-quality items, on the other hand, can cause major harm, disease, or injury, harming both persons and communities [59]. A commitment to product safety and quality is integral to long-term business sustainability. Providing products that consistently meet or exceed customer expectations can lead to loyal customers, repeat business, and sustainable growth over time [78, 80, 81]. “Privacy and data security” are paramount for safeguarding the personal and sensitive information of employees, customers, and other stakeholders [99]. Ensuring data privacy reflects a commitment to ethical and responsible governance. Mishandling data can lead to breaches, reputational damage, and loss of trust [63]. Demonstrating a strong commitment to data security builds trust with stakeholders and protects the reputation of the company [70]. “Board diversity” and “Tax transparency” also emerge as significant themes in the literature. Board diversity brings varied perspectives and experiences to decision-making, reflecting a dedication to inclusivity and fair representation at the highest levels of leadership. Transparent and responsible tax practices mitigate legal and reputational risks, promoting good governance. However, the literature suggests that these areas are often underemphasized in CSR discussions, indicating a need for greater attention. To conclude, the study employed a thematic analytical approach to discern the salient themes associated with corporate governance frameworks related to CSR endeavours. The iterative open coding technique was meticulously applied across the comprehensive dataset until reaching a point of data saturation. Subsequently, these identified codes were aggregated under the umbrella of ESG dimensions, all the while considering sector-contextual. Prominent themes emerging from the corpus of literature on corporate governance and CSR initiatives in Asian landscapes encompass the strategic shift towards renewable energy adoption to counter environmental adversities and address global climate change imperatives in alignment with overarching CSR objectives. Furthermore, the literature accentuates

the significance of upholding ethical business conduct, fostering trust, ensuring regulatory compliance, and the imperative of cultivating workplaces where employees experience a sense of value, support, and active engagement. Additionally, the literature underscores the paramountcy of transparent and ethically grounded CSR activities, and adept risk management strategies, particularly in relation to potential reputational challenges, among other aspects.

To answer RQ2, the literature presents a mixed picture of the outcomes and effectiveness of CSR initiatives in Asia, revealing both patterns and gaps that suggest directions for future research. A notable pattern is the increasing emphasis on renewable energy as a central component of CSR. The emphasis on “Renewable energy” underscores its environmental significance, especially in various Asian regions where certain communities remain devoid of consistent energy access, such as electricity. Corporations are recognizing the imperative shift towards renewable energy to mitigate environmental repercussions, curtail carbon footprints, and address climate change [50, 55]. A significant portion of Asia depends on fossil fuels, notably coal and oil, elevating air pollution and greenhouse gas emission levels. In contrast, renewable energy sources like wind, solar, hydro, and geothermal offer electricity generation with diminished greenhouse gas emissions relative to fossil fuels [49]. Systems harnessing renewable energy often champion energy efficiency [100] and waste reduction [51, 74, 101]. Illustratively, solar panels and wind turbines capture energy directly from nature, thereby bypassing energy-intensive, pollutant-producing processes, which can lead to economic savings and diminished environmental impact, enhancing corporate CSR efforts [54]. The integration of renewable energy demonstrates a commitment to enduring sustainability [52]. Unlike the limited reserves of fossil fuels, renewable sources offer a virtually inexhaustible supply of clean energy for upcoming generations [53]. This alignment with the tenets of CSR promotes judicious resource utilization, ensuring a sustainable trajectory for both organizations and societies, aiding Asian nations in their pursuit of sustainable development objectives. “**Climate change and carbon emissions**” are also critical concerns that have gained prominence in CSR initiatives. Addressing these issues is not only necessary for environmental sustainability but also for aligning corporate practices with international climate goals [102]. Companies that actively work to reduce their carbon footprints demonstrate a strong commitment to CSR and environmental stewardship [103]. However, the review also identifies significant gaps, particularly in the measurement and evaluation of **biodiversity** and **deforestation** practices. These aspects of CSR are often overlooked or inadequately addressed, despite their critical importance to environmental sustainability [104]. The literature suggests that while there is growing awareness of these issues, they are not consistently prioritized across industries, and there is a need for more robust metrics and evaluation frameworks to assess their impact effectively. This gap presents an opportunity for future research to develop more sophisticated tools for measuring the ecological outcomes of CSR initiatives. Additionally, the concept of collaborating with wildlife and nature conservation organizations is mentioned less frequently, yet it is crucial for preserving biodiversity and ensuring the sustainability of natural ecosystems. The infrequent mention of this theme indicates a potential area for future CSR efforts, especially in industries directly impacting natural habitats. The themes of a balance between profitability and sustainability [105] and waste and pollution management [106] are also central to the effectiveness of CSR in Asia. Achieving a balance ensures that resources are used efficiently and responsibly, contributing to environmental preservation while maintaining economic viability. Waste management, which includes recycling and reducing pollution, is essential for promoting resource efficiency and supporting a circular economy. “Protecting natural resources” is another area where CSR efforts are vital. The preservation of natural resources is essential for the survival of ecosystems and the sustainability of industries that rely on these resources. Companies that prioritize resource protection contribute to long-term environmental sustainability and enhance their CSR profiles. In terms of employment training and development, healthy working conditions, and respecting human rights, the literature suggests that these areas are critical for promoting social sustainability within CSR [107]. Providing training and development opportunities helps employees acquire new skills and improve existing ones, contributing to the overall success of the organization. Ensuring healthy working conditions and respecting human rights are fundamental to maintaining a responsible and ethical work environment. Finally, donations and political lobbying, and anti-competitive practices are less frequently addressed in CSR discussions. These themes, while important, maybe more context-specific, depending on the industry and region. The relatively low emphasis on these themes suggests that they may be considered secondary to more immediate CSR concerns, yet they remain significant in ensuring a comprehensive approach to corporate responsibility. In conclusion, CSR initiatives in Asia reveal a growing focus on renewable energy and environmental sustainability, reflecting the region’s pressing need to address climate challenges. However, gaps remain, particularly in areas like biodiversity and resource conservation, where stronger evaluation metrics are needed. Balancing profitability with sustainability, improving working conditions, and advancing social responsibility are key to long-term corporate success. These findings suggest that while progress is being made, there is still significant room for more comprehensive and effective CSR practices across industries.

4 Conclusion

In conclusion, this study provides a comprehensive analysis of CSR and ESG performance across Asian economies, highlighting how these practices are evolving in response to the region's unique socio-economic, environmental, and regulatory contexts. The systematic literature review revealed that key themes such as the adoption of renewable energy, ethical business conduct, employee engagement, and governance practices like board diversity and tax transparency are fundamental to the successful implementation of CSR in Asia. These findings emphasize that businesses in Asia must adopt a more integrated approach to CSR, where environmental sustainability, social equity, and governance accountability are not just peripheral concerns but central components of their strategic operations. The growing emphasis on renewable energy reflects the region's need to mitigate environmental degradation while supporting economic growth. Similarly, employee engagement, ethical governance, and transparent reporting are identified as vital components that enhance reputation, increase employee morale, and build stakeholder trust.

Despite the progress highlighted, the study uncovers significant gaps in current CSR practices in Asia, particularly in relation to biodiversity conservation, deforestation, and comprehensive waste management strategies. These environmental concerns, while critical to sustainable development, are often underrepresented in the CSR efforts of many Asian firms. For example, only a few companies have adopted robust biodiversity protection measures, and there is a lack of focus on deforestation prevention, despite Asia being home to some of the world's most ecologically sensitive areas. Similarly, waste management practices, which are crucial for reducing pollution and supporting a circular economy, are not yet fully integrated into the strategic frameworks of most firms. Addressing these gaps is essential for companies aiming to align with global sustainability standards, and it highlights the need for more stringent regulations and frameworks to guide companies in these areas. The study also points out the relatively low engagement of firms with wildlife and nature conservation organizations, which are vital for promoting biodiversity and long-term environmental health. Consequently, this research presents five propositions for the industry that reshape CSR practices in Asia:

Proposition 1: *Renewable energy is a top environmental priority, especially in many parts of Asia. The rapid urbanization and industrial growth in the region have led to an increased demand for energy, making sustainable sources critical for meeting this demand without degrading the environment.*

Proposition 2: *Transitioning to renewable energy sources is essential to mitigate environmental impacts and combat climate change. The over-reliance on fossil fuels has been a major contributor to global greenhouse gas emissions, leading to the alarming effects of climate change. A shift to renewable sources like wind, solar, and hydroelectric power is not only environmentally beneficial but also economically viable in the long run.*

Proposition 3: *This research indicates a substantial growth in the digital adoption rate across various sectors in Asia. This increase, while promising, also highlights the need for robust cybersecurity measures. Collaborative approaches between different stakeholders could bolster the reputation of Asia as a secure digital hub.*

Proposition 4: *The cultural and societal aspects of many Asian countries provide an inherent inclination towards sustainability. Leveraging this sentiment can lead to greater acceptance and integration of renewable energy solutions at a grassroots level.*

Proposition 5: *Collaboration across nations, both within Asia and globally, can help in knowledge transfer, sharing best practices, and achieving economies of scale in renewable energy projects. Joint efforts can further accelerate the transition and help in overcoming challenges related to technology, finance, and policymaking.*

This study provides a detailed exploration of CSR in Asian economies from 2011 to 2023, underscoring its growing importance in both business and academic domains. It highlights a particular focus on SMEs and large enterprises, with research methodologies predominantly using secondary data. Industry-wise, sectors such as tourism, hospitality, and financial services stand out, where CSR plays a crucial role in shaping employee satisfaction and ethical practices. The research addresses the gap in CSR studies related to Asian companies, noting that much of the existing literature centres on Western enterprises. While the study offers valuable insights, it also acknowledges limitations, particularly in its reliance on a few bibliographic databases, suggesting that future studies should incorporate more

diverse sources and comparative research across Asian cultures, along with longitudinal studies to track the evolution of CSR. The paper also emphasizes the need for deeper, industry-specific approaches that go beyond surface-level commitments, focusing on evaluating the tangible outcomes of CSR in areas like biodiversity and sustainability. By developing a more holistic approach, integrating environmental conservation, social equity, and transparent governance, Asian businesses can enhance their competitive edge while contributing to sustainable development. Future research should explore innovative methods to assess the true impact of CSR and examine the role of both governmental and non-governmental actors in promoting CSR, ultimately helping businesses build resilience and trust in their operations.

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Declarations

Competing Interests No potential conflict of interest was reported by the author(s).

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References

1. Galant A, Cadez S. Corporate social responsibility and financial performance relationship: a review of measurement approaches. *Econ Res.* 2017;30(1):676–93.
2. Feng Y, et al. The impact of corporate social responsibility on the sustainable financial performance of Italian firms: mediating role of firm reputation. *Econ Res.* 2022;35(1):4740–58.
3. Škare M, Golja T. Corporate social responsibility and corporate financial performance—is there a link? *Econ Res.* 2012;1:215–42.
4. Barnea A, Rubin A. Corporate social responsibility as a conflict between shareholders. *J Bus Ethics.* 2010;97:71–86.
5. Schnepf G, Bowen H. Social responsibilities of the businessman. *Am Cathol Sociol Rev.* 1954;15:42.
6. Bird R, et al. What corporate social responsibility activities are valued by the market? *J Bus Ethics.* 2007;76:189–206.
7. Carr AZ. Is business bluffing ethical. *Harv Bus Rev.* 1968;46(1):143–53.
8. Friedman M. The social responsibility of business is to increase its profits. In: *Corporate ethics and corporate governance.* Springer; 2007. p. 173–8.
9. Székely F, Knirsch M. Responsible leadership and corporate social responsibility: metrics for sustainable performance. *Eur Manag J.* 2005;23(6):628–47.
10. Branco MC, Rodrigues LL. Corporate social responsibility and resource-based perspectives. *J Bus Ethics.* 2006;69:111–32.
11. Chapple W, Moon J. Corporate social responsibility (CSR) in Asia: a seven-country study of CSR web site reporting. *Bus Soc.* 2005;44(4):415–41.
12. Fan P, Hou M. Is there a gap between saying and doing in CSR? Cases from Asian firms. New York: Taylor & Francis; 2022.
13. Ramasamy B, Yeung MC, Chen J. Selling to the urban Chinese in East Asia: Do CSR and value orientation matter? *J Bus Res.* 2013;66(12):2485–91.
14. Onkila T, Sarna B. A systematic literature review on employee relations with CSR: state of art and future research agenda. *Corp Soc Responsib Environ Manag.* 2022;29(2):435–47.
15. Font X, et al. Corporate social responsibility: the disclosure–performance gap. *Tour Manage.* 2012;33(6):1544–53.

16. Hao X, Florez-Perez L. The effect of classroom environment on satisfaction and performance: towards IoT-sustainable space. 2021;443–453.
17. Yadav A, Prakash A. Factors influencing sustainable development integration in management education: an empirical assessment of management education institutions in India. *Int J Manag Educ.* 2022;20(1): 100604.
18. Moher D, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Ann Intern Med.* 2009;151(4):264–9.
19. Stewart LA, et al. Preferred reporting items for a systematic review and meta-analysis of individual participant data: the PRISMA-IPD statement. *JAMA.* 2015;313(16):1657–65.
20. Regona M, et al. Opportunities and adoption challenges of AI in the construction industry: a PRISMA review. *J Open Innov Technol Market Compl.* 2022;8(1):45.
21. Mustapha I, et al. The impact of industry 4.0 on innovative organisations, a thematic review using the PRISMA statement 2020. *Int J Interactive Mobile Technol* 2023;17:9.
22. Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Info Libr J.* 2009;26(2):91–108.
23. Daugaard D, Ding A. Global drivers for ESG performance: the body of knowledge. *Sustainability.* 2022;14(4):2322.
24. Page MJ, et al. Updating guidance for reporting systematic reviews: development of the PRISMA 2020 statement. *J Clin Epidemiol.* 2021;134:103–12.
25. Hao X, Demir E. Artificial intelligence in supply chain decision-making: an environmental, social, and governance triggering and technological inhibiting protocol. *J Modell Manag.* 2023;2:5.
26. Bhattarai PC, et al. Determinants of adolescents' pro-sustainable behavior: a systematic literature review using PRISMA. *Discov Sustain.* 2024;5(1):112.
27. Denyer D, Tranfield D. Producing a systematic review. 2009.
28. López-Illescas C, de Moya-Anegón F, Moed HF. Coverage and citation impact of oncological journals in the Web of Science and Scopus. *J Informet.* 2008;2(4):304–16.
29. Martínez-Falcó J, et al. The interplay between competitive advantage and sustainability in the wine industry: a bibliometric and systematic review. *Discov Sustain.* 2024;5(1):13.
30. Hao X, Demir E. Artificial intelligence in supply chain management: enablers and constraints in pre-development, deployment, and post-development stages. *Prod Plan Control.* 2024;2:1–23.
31. Kim H, et al. Why hotel employees care about corporate social responsibility (CSR): using need satisfaction theory. *Int J Hosp Manag.* 2020;87: 102505.
32. Douglas A, Doris J, Johnson B. Corporate social reporting in Irish financial institutions. *TQM Mag.* 2004;16(6):387–95.
33. Kiliç M, Kuzey C, Uyar A. The impact of ownership and board structure on corporate social responsibility (CSR) reporting in the Turkish banking industry. *Corp Gov.* 2015;15(3):357–74.
34. Csabay M, Stehlikova B. Firm size distribution and the effects of ownership type. *J Competitiv.* 2020;2:4.
35. Vogt WP, Gardner DC, Haeffle LM. When to use what research design. London: Guilford Press; 2012.
36. Zhu M, Sari A, Lee MM. A systematic review of research methods and topics of the empirical MOOC literature (2014–2016). *Internet Higher Educ.* 2018;37:31–9.
37. Bookstaver M. Secondary data analysis. *The Encycl Res Methods Criminol Criminal Just.* 2021;2:531–4.
38. Glaser B, Strauss A. *Discovery of grounded theory: strategies for qualitative research.* London: Routledge; 2017.
39. Clarke V, Braun V, Hayfield N. Thematic analysis. *Qual Psychol.* 2015;3:222–48.
40. Mahmood A, et al. Unleashing the barriers to CSR implementation in the sme sector of a developing economy: a thematic analysis approach. *Sustainability.* 2021;13(22):12710.
41. Tate WL, Ellram LM, Kirchoff JF. Corporate social responsibility reports: a thematic analysis related to supply chain management. *J Supply Chain Manag.* 2010;46(1):19–44.
42. Shu C, et al. How do Islamic values influence CSR? A systematic literature review of studies from 1995–2020. *J Bus Ethics.* 2021;2:1–24.
43. Gillan SL, Koch A, Starks LT. Firms and social responsibility: a review of ESG and CSR research in corporate finance. *J Corp Finan.* 2021;66: 101889.
44. Mansour A, et al. Societal sustainability consciousness and its influence on corporate responsibility uptake in Jordan's business sector. *Discov Sustain.* 2024;5(1):133.
45. Lagasio V, Cucari N. Corporate governance and environmental social governance disclosure: a meta-analytical review. *Corp Soc Responsib Environ Manag.* 2019;26(4):701–11.
46. Walker D, Myrick F. Grounded theory: an exploration of process and procedure. *Qual Health Res.* 2006;16(4):547–59.
47. Raman R, Lathabai HH, Nedungadi P. Sustainable development goal 12 and its synergies with other SDGs: identification of key research contributions and policy insights. *Discov Sustain.* 2024;5(1):150.
48. Abaeian V, Yeoh KK, Khong KW. An exploration of CSR initiatives undertaken by Malaysian hotels: underlying motivations from a managerial perspective. *Proc Soc Behav Sci.* 2014;144:423–32.
49. Hulshof D, Mulder M. The impact of renewable energy use on firm profit. *Energy Econ.* 2020;92: 104957.
50. Yusof JM, et al. Customer's loyalty effects of CSR initiatives. *Proc Soc Behav Sci.* 2015;170:109–19.
51. Chen C-C, Hsieh T-Y, Lin Z-S. An analysis of silicon-based solar industry operation performance in Taiwan. *Proc Soc Behav Sci.* 2012;57:306–11.
52. Martinez S, et al. Pre-construction quantification of embodied environmental impacts to promote sustainable construction projects: the case study of a diversion dam. *J Environ Manage.* 2022;314: 115061.
53. Bhamra T, et al. Product service systems: a sustainable design strategy for SMES in the textiles and leather sectors. *She Ji.* 2018;4(3):229–48.
54. Ye F, Li Y, Liu P. Impact of energy efficiency and sharing economy on the achievement of sustainable economic development: New evidences from China. *J Innov Knowl.* 2023;8(1): 100311.
55. Pfajfar G, et al. Value of corporate social responsibility for multiple stakeholders and social impact—relationship marketing perspective. *J Bus Res.* 2022;143:46–61.

56. Lay Hong T, Boon Cheong C, Syaiful Rizal H. Service innovation in Malaysian banking industry towards sustainable competitive advantage through environmentally and socially practices. *Proc Soc Behav Sci.* 2016;224:52–9.
57. Nilnoppakun A, Ampavat K. Is Pai a sustainable tourism destination? *Proc Econ Finan.* 2016;39:262–9.
58. Lee MT, Suh I. Understanding the effects of environment, social, and governance conduct on financial performance: arguments for a process and integrated modelling approach. *Sustain Technol Entrepr.* 2022;1(1): 100004.
59. Mousiolis DT, Bourletidis K. The corporate identity through the CSR's paths. *Proc Soc Behav Sci.* 2015;175:511–4.
60. Rashid NRNA, Khalid SA, Rahman NIA. Environmental corporate social responsibility (ECSR): exploring its influence on customer loyalty. *Proc Econ Finan.* 2015;31:705–13.
61. Truong BTT, Nguyen PV. Driving business performance through intellectual capital, absorptive capacity, and innovation: the mediating influence of environmental compliance and innovation. *Asia Pac Manag Rev.* 2023;2:8.
62. Chiu ASF. Sustainable consumption and production policy options in Asia and the Pacific. *Proc Soc Behav Sci.* 2011;25:413–8.
63. Adomako S, et al. Nonmarket strategy in emerging markets: the link between SMEs' corporate political activity, corporate social responsibility, and firm competitiveness. *J Bus Res.* 2023;160: 113767.
64. Hsu M-S, Lin F-J. The developing strategy of green energy industry cluster a case study of the solar photoelectric industry in Taiwan. *Proc Soc Behav Sci.* 2012;40:165–73.
65. Falchetta G, et al. Harnessing finance for a new era of decentralised electricity access: a review of private investment patterns and emerging business models. *Energy Res Soc Sci.* 2022;90: 102587.
66. George G, Schillebeeckx SJD. Digital transformation, sustainability, and purpose in the multinational enterprise. *J World Bus.* 2022;57(3): 101326.
67. Groenewoudt AC, Romijn HA. Limits of the corporate-led market approach to off-grid energy access: a review. *Environ Innov Soc Trans.* 2022;42:27–43.
68. Hyytiäinen K, et al. Extending the shared socioeconomic pathways for adaptation planning of blue tourism. *Futures.* 2022;137: 102917.
69. Chenet H, Ryan-Collins J, van Lerven F. Finance, climate-change and radical uncertainty: towards a precautionary approach to financial policy. *Ecol Econ.* 2021;183: 106957.
70. Rokhmawati A, Sathye M, Sathye S. The effect of GHG emission, environmental performance, and social performance on financial performance of listed manufacturing firms in Indonesia. *Proc Soc Behav Sci.* 2015;211:461–70.
71. Sun Y, Shahzad M, Razzaq A. Sustainable organizational performance through blockchain technology adoption and knowledge management in China. *J Innov Knowl.* 2022;7(4): 100247.
72. Hanaysha J. Examining the effects of employee empowerment, teamwork, and employee training on organizational commitment. *Proc Soc Behav Sci.* 2016;229:298–306.
73. Putthiwani C. Exploring the impact of organizational culture on employees in multinational enterprise: a qualitative approach. *Proc Soc Behav Sci.* 2015;207:483–91.
74. Chen C-H. The mediating effect of corporate culture on the relationship between business model innovation and corporate social responsibility: a perspective from small- and medium-sized enterprises. *Asia Pac Manag Rev.* 2022;27(4):312–9.
75. Ayrancı AE, Ayrancı E. A research on job satisfaction factors of private entrepreneurs: the case of beylikduzu organized industrial zone. *Proc Soc Behav Sci.* 2015;195:268–77.
76. Osman MNH, Nahar HS. Understanding and assessing governance agents' relationships: the contribution of leader-member exchange theory. *Proc Econ Finan.* 2015;31:746–58.
77. Lin R-J, Sheu C. Why do firms adopt/implement green practices?—An institutional theory perspective. *Proc Soc Behav Sci.* 2012;57:533–40.
78. Ghosh S, Chandra Mandal M, Ray A. Exploring the influence of critical parameters on green supply chain management performance of small and medium-sized enterprise: an integrated multivariate analysis-robust design approach. *Cleaner Logist Supply Chain.* 2022;4: 100057.
79. Xie X, Hoang TT, Zhu Q. Green process innovation and financial performance: the role of green social capital and customers' tacit green needs. *J Innov Knowl.* 2022;7(1): 100165.
80. Kunkel S, et al. Industry 4.0 in sustainable supply chain collaboration: insights from an interview study with international buying firms and Chinese suppliers in the electronics industry. *Resour Conserv Recyc.* 2022;182: 106274.
81. Lozano MB, Martínez-Ferrero J. Do emerging and developed countries differ in terms of sustainable performance? Analysis of board, ownership and country-level factors. *Res Int Bus Financ.* 2022;62: 101688.
82. Phillips S, Thai VV, Halim Z. Airline value chain capabilities and CSR performance: the connection between CSR leadership and CSR culture with CSR performance, customer satisfaction and financial performance. *Asian J Shipp Logist.* 2019;35(1):30–40.
83. Dekoulou P, Trivellas P. Learning organization in greek advertising and media industry: a way to face crisis and gain sustainable competitive advantage. *Proc Soc Behav Sci.* 2014;148:338–47.
84. Jankalova M. Approaches to the evaluation of corporate social responsibility. *Proc Econ Finan.* 2016;39:580–7.
85. Holmström Lind C, et al. Involvement of multinational corporations in social innovation: exploring an emerging phenomenon. *J Bus Res.* 2022;151:207–21.
86. Nicolae JC, Sabina DBM. The ICT implication on CSR in the tourism of emerging markets. *Proc Econ Finan.* 2012;3:702–9.
87. Florackis C, Fu X, Wang J. Political connections, environmental violations and punishment: evidence from heavily polluting firms. *Int Rev Financ Anal.* 2023;88: 102698.
88. Oesterreich TD, et al. The role of the social and technical factors in creating business value from big data analytics: a meta-analysis. *J Bus Res.* 2022;153:128–49.
89. Fatima T, Elbanna S. Advancing sustainable performance management in the hospitality industry: a novel framework based on a health-inclusive balanced scorecard. *Tourism Manag Perspect.* 2023;48: 101141.
90. Gnych S, et al. Is community tenure facilitating investment in the commons for inclusive and sustainable development? *For Policy Econ.* 2020;111: 102088.
91. Amiril A, et al. Transportation infrastructure project sustainability factors and performance. *Proc Soc Behav Sci.* 2014;153:90–8.

92. Mason MC, et al. Understanding the impact of entrepreneurial orientation on SMES' performance the role of the financing structure. *Proc Econ Finan.* 2015;23:1649–61.
93. Rodriguez-Fernandez M. Social responsibility and financial performance: the role of good corporate governance. *BRQ Bus Res Q.* 2016;19(2):137–51.
94. Waworuntu SR, Wantah MD, Rusmanto T. CSR and financial performance analysis: evidence from Top ASEAN listed companies. *Proc Soc Behav Sci.* 2014;164:493–500.
95. Younis H, Sundarakani B, O'Mahony B. Investigating the relationship between green supply chain management and corporate performance using a mixed method approach: developing a roadmap for future research. *IIMB Manag Rev.* 2020;32(3):305–24.
96. Garg A, et al. As you sow, so shall you reap: assessing drivers of socially responsible investment attitude and intention. *Technol Forecast Soc Chang.* 2022;184: 122030.
97. Mugoni E, Nyagadza B, Hove PK. Green reverse logistics technology impact on agricultural entrepreneurial marketing firms' operational efficiency and sustainable competitive advantage. *Sustain Technol Entrepreneurship.* 2023;2(2): 100034.
98. Yusof JM, Musa R, Rahman SA. The effects of green image of retailers on shopping value and store loyalty. *Proc Soc Behav Sci.* 2012;50:710–21.
99. Hao X, Demir E, Eysers D. Exploring collaborative decision-making: a quasi-experimental study of human and generative AI interaction. *Technol Soc.* 2024;78: 102662.
100. Ghiami Y, et al. A deteriorating inventory routing problem for an inland liquefied natural gas distribution network. *Transport Res Part B Methodol.* 2019;126:45–67.
101. Wang X, Rodrigues VS, Demir E. Managing your supply chain pantry: food waste mitigation through inventory control. *IEEE Eng Manag Rev.* 2019;47(2):97–102.
102. Mishra T, Datta P, Behera B. Corporate environmental responsibility, financial performance and environmental outcomes in India: a review. *Discov Sustain.* 2024;5(1):213.
103. Demir E et al. Vehicle routing problem: past and future. *Contemporary operations and logistics: achieving excellence in turbulent times,* 2019: p. 97–117.
104. Oelschläger LM, Kim RE. Do NGOs recognise the climate-biodiversity nexus? Insights from 107 climate NGOs in Germany. *Discov Sustain.* 2024;5(1):114.
105. Masmoudi MA, et al. A study on the heterogeneous fleet of alternative fuel vehicles: reducing CO2 emissions by means of biodiesel fuel. *Transp Res Part D: Transp Environ.* 2018;63:137–55.
106. Demir E. Models and algorithms for the pollution-routing problem and its variations. University of Southampton 2012.
107. Ahmad Z, Hidhiir MHB, Rahman MM. Impact of CSR disclosure on profitability and firm performance of Malaysian halal food companies. *Discover Sustain.* 2024;5(1):18.

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