



**REGRESSION MODEL OF STAKEHOLDER IMPLEMENTATION ON CSR
PERFORMANCE: A QUANTITATIVE APPROACH TO STATE-OWNED
ENTERPRISES IN THE DIGITAL ERA 2025****Aisyah Amini Hasibuan¹****Universitas Muhammadiyah Surakarta, Surakarta, Indonesia****aminihasibuaanaaisyah@gmail.com****Mahameru Rosy Rochmatullah²****Universitas Muhammadiyah Surakarta, Indonesia****mrn122@ums.ac.id**

Abstract

The manner in which SOEs carry out CSR has undergone a significant transformation thanks to digitalization. The goal of this research is to examine how stakeholder implementation affects CSR performance in state-owned enterprises in the digital age of 2025. For the years 2021–2025, 25 Scopus Q1-Q3 indexed publications were systematically reviewed using the PRISMA 2020 methodology. The study found that stakeholder implementation improves CSR performance, with primary stakeholders' orientation having a greater impact than secondary stakeholders'. Through greater transparency and dynamic skills, digital transformation plays a complicated moderating role that improves relationships. There were notable variations between sectors, with consumer market businesses enjoying greater long-term benefits. In conclusion, in order to maximize sustainable CSR performance, SOEs must prioritize digital transformation and sector-specific methodologies in the development of an integrated stakeholder implementation strategy.

Keywords: Corporate Social Responsibility, Digital Age, Stakeholder Implementation, CSR Performance, State-Owned Companies



INTRODUCTION

The digital transformation era in 2025 has significantly altered the operational environment of companies, particularly regarding SOEs that are tasked with both achieving economic goals and meeting corporate social responsibility obligations. In this setting, the use of Squirrel plays a pivotal role in determining how successful CSR initiatives are, given that SOEs function within a complex network of stakeholders, each with their own expectations. Recent studies indicate that digital transformation has a notable impact on a company's CSR achievements, with firms investing in digital tools likely to record better scores in social responsibility, especially in governance and social accountability (Assarraj and Maache, 2024). This situation highlights a strategic link between embracing digital technology and enhancing corporate sustainability practices (Kantabutra and Ketprapakorn, 2020).

Research findings from diverse geographical regions illustrate the intricate connection among Squirrel, CSR, and corporate performance. Within the framework of state-owned enterprises, studies have demonstrated that the effect of Squirrel on CSR practices is significant and leads to particular advantages like improved financial performance and company valuation (Khuong et al. , 2021; Kujala et al. , 2022), as discussed in research conducted by scholars in Vietnam. Moreover, a comparative analysis of state-owned and private enterprises in China points out that ownership factors crucially influence how different Squirrel is addressed in CSR disclosures, with state-owned firms having distinct social goals compared to private firms due to historical and institutional contexts (Ervits, 2023). Additionally, recent investigations have revealed that the digital transformation throughout the value chain can greatly enhance CSR outcomes, with the transition in digital management being more impactful than shifts in digital production and marketing (Na et al. , 2022).

Nonetheless, there is a significant gap in the current literature. Firstly, most prior studies have concentrated on descriptive or qualitative evaluations of the stakeholder-CSR connection, while quantitative methods that can systematically analyze regression relationships are still scarce, especially concerning Indonesian SOEs in the digital age. Secondly, while the body of research on digital transformation and CSR has grown, the specific role of stakeholder involvement in moderating or mediating the link between digital transformation and CSR performance has not been thoroughly investigated. Thirdly, research on SOEs often overlooks the diversity within sectors and the distinct characteristics of



various stakeholders present in the Indonesian SOE ecosystem, despite this being critical for grasping the dynamics of successful CSR implementation.

The originality of this research comes from a few key points. First, this study combines stakeholder theory with digital transformation theory using a large regression model to examine how Indonesian state-owned enterprises (SOEs) perform in corporate social responsibility (CSR) during the digital era of 2025. Second, this research uses a structured quantitative method, which allows for an unbiased evaluation of how stakeholder implementation impacts various aspects of CSR performance. Third, it focuses on Indonesian SOEs that have distinct features as hybrid organizations that work on both business and social goals in a rapidly changing digital environment. Fourth, the regression model created in this study can serve as a helpful tool for decision-makers and SOE managers in formulating effective strategies for stakeholder engagement to enhance CSR performance as digital transformation speeds up.

Given the background information, this study poses several research questions. First, how does stakeholder engagement influence CSR performance in state-owned firms during the digital era of 2025? Second, to what degree do different aspects of stakeholder involvement—like internal stakeholder engagement, external stakeholder involvement, and how actively stakeholders communicate—affect variations in CSR performance among SOEs? Third, how does digital transformation affect the link between stakeholder engagement and CSR performance in Indonesian SOEs? Fourth, are there notable differences in how stakeholder engagement relates to CSR performance across various SOE industries? Fifth, what contextual elements should be factored in when modeling the relationship between stakeholder engagement and CSR performance in SOEs during the digital age? This set of questions aims to provide a complete and evidence-based view of how stakeholder engagement plays out concerning the CSR performance of SOEs in a time of digital change.

In line with these research questions, this study aims to analyze and create a model that shows how stakeholder engagement affects CSR performance in SOEs during the digital era of 2025, using a systematic quantitative method. More specifically, the study seeks to identify and quantify how different aspects of stakeholder engagement contribute to CSR performance in SOEs, create a regression model that can forecast CSR performance based on variables related to stakeholder engagement and digital transformation, explore how digital transformation influences the stakeholder engagement-CSR performance relationship, analyze the differences in these relationship patterns across different SOE sectors, and identify factors that impact the success of stakeholder



engagement in enhancing CSR performance. By achieving these goals, this research hopes to contribute to the theoretical understanding of stakeholder theory in the context of hybrid organizations like SOEs, as well as provide practical benefits for improving stakeholder management strategies and CSR initiatives in the digital age.

This study is anticipated to offer important advantages from both a theoretical and practical viewpoint. From a theoretical perspective, this study enhances the literature on stakeholder theory by incorporating it within the framework of digital transformation and hybrid organizations, including SOEs. It deepens the comprehension of successful stakeholder engagement strategies aimed at enhancing CSR performance through a structured quantitative method. Additionally, it offers a conceptual framework for regression models that may be utilized and refined in similar studies across different organizational settings. From a practical standpoint, this research offers a useful tool in the shape of a regression model that SOE management can utilize to formulate and assess strategies for engaging stakeholders in order to enhance CSR performance. It offers data-driven insights for government policymakers involved in the creation of regulations and guidelines concerning SOE governance and CSR activities in the digital age. This study also aids CSR practitioners in identifying the key priorities for stakeholder engagement that most significantly impact the attainment of sustainability objectives. Additionally, it serves as a valuable resource for researchers and scholars interested in exploring further studies on the relationships among stakeholders, CSR, and digital transformation within public sector organizations. Consequently, this study aims to connect theoretical knowledge with practical applications in stakeholder management and corporate social responsibility within state-owned enterprises in the digital era of 2025.

RESEARCH METHOD

To ensure transparency, reproducibility, and accuracy in the process of identifying, selecting, and synthesizing literature, this study employs the SLR methodology in accordance with the PRISMA 2020 standards (Page et al., 2021). The PRISMA method was selected because it offers a uniform and complete framework for carrying out systematic reviews, reducing selection bias, and enhancing the quality of results reporting. Given that Scopus is the biggest repository of scientific literature that has been peer-reviewed, the search procedure was conducted through the Scopus database, concentrating on indexed journals from Q1 to Q3. It covers more than 18,000 journal titles, making



it the ideal tool for researching business social responsibility and its implementation (Lopez-Concepcion et al., 2022).

The strategy for searching was created by combining the key phrases "corporate social responsibility," "CSR outcomes," "stakeholder implementation," "stakeholder engagement," "state-owned companies," "digital transformation," and "regression analysis," using the Boolean operators AND and OR. The time frame for the search is set from 2021 to 2025 to ensure that the results are relevant and up-to-date, reflecting the current digital environment. The criteria for inclusion consist of empirical and conceptual scholarly articles published in English, categorized in Scopus Q1-Q3, that focus on stakeholder implementation within the realm of CSR or digital transformation and apply quantitative methods suitable for developing regression models. Articles such as conference papers, book chapters, editorials, texts lacking complete content, and studies that do not pertain to state-owned enterprises are among those excluded.

The process of selection adheres to the four stages outlined by PRISMA: identification, screening, eligibility, and inclusion. During the identification phase, potential articles are sourced from Scopus based on the specified keywords. The screening phase consists of eliminating duplicates and reviewing titles and abstracts to determine their relevance. In the eligibility phase, full texts are read to check if they satisfy the inclusion criteria, specifically regarding methodological quality and theoretical contributions. The inclusion phase results in a final collection being analyzed to uncover patterns, themes, and research voids concerning the regression analysis of stakeholder implementation in relation to CSR performance in state-owned enterprises. Each phase is meticulously recorded in a PRISMA flowchart for clarity. The data gathered includes bibliographic details, research goals, theoretical frameworks, methodological approaches, variables, significant findings, and implications. The analysis was conducted both narratively and thematically to amalgamate findings, pinpoint trends, and propose research ideas that guide the advancement of a regression analysis concerning stakeholder implementation in the CSR performance of state-owned enterprises for the year 2025 within a digital context.

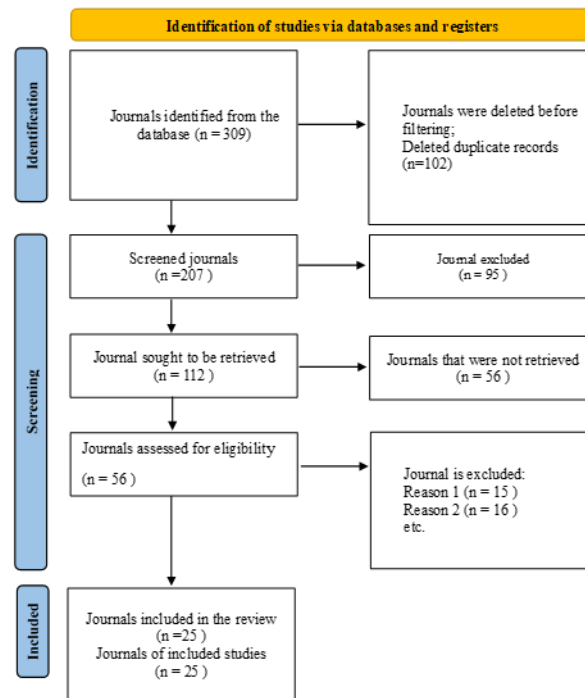


Figure 1.
Flowchart PRISMA

“This research employs a structured review technique using the PRISMA framework to find and choose relevant studies. The process started with identifying a total of 309 journals, which were successfully found through various databases and academic catalogs. After the first screening, 102 journals were removed because they were duplicates, leaving 207 journals for the next step. During the screening phase, a feasibility check was done on these 207 journals, resulting in 95 journals that had to be left out since they didn’t fit the inclusion criteria. Out of 112 journals that were attempted to be accessed completely, 56 journals couldn’t be obtained and were thus excluded from the review. Additionally, the 56 journals that were accessed were examined more closely for eligibility, and 31 journals were discarded for different specific reasons, with 15 being excluded for one reason and 16 for another. Ultimately, 25 journals fulfilled all criteria and were included in this systematic review to be analyzed further regarding how stakeholders implement CSR performance in state-owned enterprises during the digital age.



RESULTS AND DISCUSSION

Descriptive Statistical Test

The findings from the descriptive statistical examination of the independent variables and the moderated dependent variables are presented in the table below:

Table 1.
Synthesis of relevant journal research and articles

Yes	Journal Title	Author & Year	Research and Sample Focus	Stakeholder Implementation	Corporate Social Responsibility Performance	Regression Models and Quantitative Approaches	Implications
1	Business Model Innovation: A Bridge Between Corporate Social Responsibility and Successful Performance for Medium-Size Enterprises (SMEs) in the Digital Era	(Omidvar et al., 2025)	SMEs in Iran (n=483); mediation of business model innovation on CSR and performance	The application of Carroll's CSR dimension includes economic, legal, ethical, and environmental responsibilities to stakeholders	Business model innovation mediates the relationship between all aspects of CSR and performance except the environmental dimension	Structural Equation Modeling (SEM) with 483 respondents	Managers need to understand the specific aspects of CSR that affect innovation and performance in the digital age
2	Corporate Social Responsibility (CSR) Performance and Stakeholder Engagement: Evidence from the Quantity and Quality of CSR Disclosures	(Koh et al., 2021)	U.S. companies (n=2,774 standalone CSR reports, 2003-2015); the relationship between CSR performance and the quality of disclosure	Stakeholder engagement through quality and informative CSR reporting	Companies with good CSR performance publish longer and high-quality reports; underperforming companies using uncertain words	Textual content analysis using a quantitative approach on 2,774 reports	The quality of CSR disclosure affects stakeholder perception and engagement
3	Corporate social responsibility and export performance under stakeholder view: The	(Martos-Pedrero et al., 2023)	Agri-food companies (n=107); The Influence of CSR on Export Performance by Mediating Innovation	CSR does not have a direct effect on export performance but through innovation; The form of cooperative	Innovation acts as a mediator between CSR practices and the company's export performance	Mediation and moderation analysis using data from 107 companies	Legal forms of organization and innovation are important in optimizing the impact of CSR on performance



	mediation of innovation and the moderation of the legal form			law is more profitable			
4	CSR reporting in China's private and state-owned enterprises: A mixed methods comparative analysis	(Ervits, 2023)	State-owned and non-state-owned companies in China; CSR Reporting Comparison	Homogeneity of CSR reporting due to coercive isomorphism; state-owned banks mediate the government's socio-economic goals	The government's incentive system encourages SOEs and non-SOEs to engage in socially responsible behavior and disclosure	Quantitative and qualitative content analysis mixed methods	The government creates an incentive system that encourages CSR behavior in SOEs and non-SOEs
5	Effect of CSR and Ethical Practices on Sustainable Competitive Performance: A Case of Emerging Markets from Stakeholder Theory Perspective	(Waheed & Zhang, 2022)	SMEs in China and Pakistan; The Influence of CSR Practices on Sustainable Competitive Performance	Responsibility to the environment, communities, customers, suppliers, employees, and government regulations	CSR practices are positively related to sustainable competitive performance through the mediation of ethical cultural practices	SEM with data from SMEs in two developing countries	Ethical cultural practices mediate the relationship between CSR practices and sustainable competitive performance
6	Effect of digital transformation on innovation performance in China: corporate social responsibility as a moderator	(Wang & Yan, 2023)	China's A-share listed companies; Digital transformation and innovation performance	CSR positively moderates the role of digital transformation on innovation performance	Digital transformation improves product and process innovation performance with CSR moderation	Fixed-effect regression with Hausman test and heterogeneity test	Digital transformation has a heterogeneous impact across industries; CSR strengthens its influence on innovation
7	Examining the Role of Stakeholder-Oriented Corporate Governance in Achieving Sustainable Development: Evidence from the SME CSR	(L. Zhang et al., 2022)	China-listed SMEs (n=172); Stakeholder-oriented governance	A stakeholder-oriented type of CSR negatively impacts short-term operational profitability	Government subsidies partially moderate the relationship between stakeholder-oriented CSR and performance	Regression analysis with a sample of 172 SMEs listed	Managerial stakeholder theory is more pragmatic for the sustainable development of SMEs



	in the Context of China					
8	Exploring the effect of digital CSR communication on firm performance: A deep learning approach	(Han et al., 2024)	Chinese manufacturing enterprises (n=65, 2015- 2019); digital CSR communication on social media	Digital CSR communication increases stakeholder engagement through social media	The positive but delayed influence of digital CSR communication on financial performance through stakeholder engagement	Natural Language Processing (NLP) deep learning for the detection of 64,769 tweets
9	From a Shareholder to Stakeholder Orientation: Evidence from the Analyses of Chief Executive Dismissal in Large U.S. Firms	(Shin et al., 2021)	Large U.S. corporations (1980-2015); Shifting Corporate Governance Orientation	After the 2000s, CEOs were more valued for CSR activities than shareholder orientation	Governance practices evolved from shareholder orientation to stakeholder orientation	Empirical evidence of a shift in governance practices towards a post- Enron era stakeholder orientation
10	Industry and Stakeholder Impacts on Corporate Social Responsibility (CSR) and Financial Performance: Consumer vs. Industrial Sectors	(Arian et al., 2023)	Australian listed companies (2007-2021); Difference between consumer and industrial industries	Consumer market companies get stakeholder rewards for CSR efforts; does not occur in the industrial market	CSR performance has a positive effect on financial performance, especially in the consumer market sector	Regression analysis of Australian public companies longitudinal panels
11	Leveraging stakeholder engagement for market value growth: Empirical evidence on sustainable development leadership in Europe	(Garcia- Blandon et al., 2024)	European Companies in DJSI (2010- 2018); Sustainable Development Leadership	Stock market participants do not perceive sustainability leadership as a value-added asset	Corporate governance establishes the link between sustainable development leadership and performance	Market sentiment towards sustainability leadership declines as initiatives become public
12	Research on the Influence Mechanism of	(Ji et al., 2025)	Chinese State- Owned Enterprises	The U-shaped relationship between ESG	ESG performance affects the	Dynamic panel model and Digital transformation and ESG



	Environment Social Government Performance in State-Owned Enterprise Value: The Role of Digital Transformation	(2014-2020); ESG performance and company value	performance and SOE value; Digital transformation moderates positivity	company's value by reducing financing constraints	endogeneity test	practices are important for the sustainable development of SOEs
13	Stakeholder management, CSR commitment, corporate social performance: The moderating role of uncertainty in CSR regulation	(Adomako & Tran, 2022)	Companies from various sectors (n=228); stakeholder management and CSR commitment	Stakeholder integration positively affects the company's CSR commitment	CSR commitment mediates the relationship between stakeholder integration and corporate social performance	Uncertainty in CSR regulations weakens the relationship between stakeholder integration and commitment
14	Stakeholder- Centered Corporate Governance and Corporate Sustainable Development: Evidence from CSR Practices in the Top Companies by Market Capitalization at Shanghai Stock Exchange of China	(Bai et al., 2023)	SSE's top 100 manufacturing companies (2012-2021); Stakeholder- centric governance	Responsibility to governments, communities, suppliers, customers, and creditors affects performance	Government subsidies motivate large companies to focus on stakeholder- centric CSR practices	Fixed effect regression, moderation analysis, CSMAR database
15	Government subsidies are a key factor in improving CSR practices and company performance					
	State-owned capital and corporate social responsibility of private- holding companies: evidence from China	(T. Zhang & Gu, 2023)	Private- holding companies listed (n=9,872, 2009-2019); state-owned capital and CSR	State capital ownership >5% improves CSR performance; appointment of directors by state shareholders promotes CSR	State-owned capital increases CSR fulfillment in private- holding listed companies	Regression OLS data panel of Shanghai- Shenzhen listed companies
						State capital improves corporate governance mechanisms and CSR performance of private companies



16	The firm under the spotlight: How stakeholder scrutiny shapes corporate social responsibility and its influence on performance	(Forcadell et al., 2023)	Companies from 23 developed countries (n=5,762, 2013-2017); stakeholder oversight	Stakeholder oversight shapes the credibility of a company's CSR signals	Stakeholder oversight has a positive impact on the credibility of CSR signals through moderated-mediated influence	Panel analysis with signaling theory and stakeholders	Stakeholder oversight increases the credibility of ESG cross-dimensional CSR signals
17	The impact of corporate social responsibility types on happiness management: a stakeholder theory perspective	(Mu et al., 2024)	Employees of Chinese companies with CSR experience; types of CSR and happiness management	Primary and secondary stakeholders-oriented CSR influences job satisfaction and happiness	Both types of CSR have a significant positive impact on happiness management; Primary CSR has a greater impact	Partial Least Squares-Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0	Companies can develop sustainable strategies by prioritizing CSR practices
18	The Interplay of Corporate Social Responsibility, Innovation Capability, Organizational Learning, and Sustainable Value Creation: Does Stakeholder Engagement Matter?	(Alshukri et al., 2024)	Turkish manufacturing managers (n=416); CSR, innovation, organizational learning, and value creation	Stakeholder engagement moderates the relationship between CSR and organizational learning and innovation capabilities	CSR positively influences sustainable value creation; Organizational learning and innovation mediate partially	AMOS 24 for quantitative research model testing	Stakeholder engagement strengthens the positive influence of CSR on learning, innovation, and value
19	Too Old to Bother: CEO Age and Corporate Stakeholder Engagement	(Yousaf & Nguyen, 2025)	French listed companies (2006-2023); CEO age and stakeholder engagement	CEO age is negatively correlated with the likelihood and intensity of stakeholder engagement	Older CEOs are associated with weaker CSR performance, especially in resource use and emissions	Panel analysis with multiple specifications and alternative engagement indicators	The age of the CEO needs to be considered by boards, investors, and policymakers for sustainability strategies
20	Will the Governance of Non-State Shareholders Inhibit	(R. Zhang et al., 2022)	state-owned enterprises listed Shanghai-Shenzhen	Non-state shareholder governance helps improve SOEs' social	Non-state shareholders improve SOEs' CSR performance	OLS regression of the A-share SOE panel data model	The impact of non-state governance on SOEs' CSR is heterogeneous



	Corporate Social Responsibility Performance? Evidence from the Mixed-Ownership Reform of China's State-Owned Enterprises		(2013-2019); Governance of non-state shareholders	responsibility performance	through improving the quality of internal control		according to marketization and competition
21	Corporate social responsibility internal as a predictor for motivation to serve, normative commitment, and adaptive performance among State-owned Enterprises' employees	(Ramdhan et al., 2022)	Non-manager employees of SOEs in the defense industry (n=289); Internal CSR and adaptive performance	Internal CSR becomes a resource that increases employee motivation to serve and normative commitment	Internal CSR affects adaptive performance both directly and through service motivation and normative commitment	Causal study with a survey of 289 randomly selected SOE employees	Internal CSR based on environmental ethical awareness is important for adaptive performance during the pandemic
22	Corporate social responsibility, digital economy, and corporate energy utilization efficiency-based on moderating effect and heterogeneity analysis	(Cui et al., 2025)	Listed Companies in China (2009-2022); CSR, digital economy, and energy efficiency	Actively fulfilling social responsibility to improve the efficiency of the company's energy utilization	The digital economy moderates the relationship between CSR fulfillment and corporate energy utilization efficiency	Empirical analysis with the econometric model of listed companies	The effect of digital economy moderation shows heterogeneity between SOEs and private companies
23	Enhancing corporate social responsibility in the digital economy era: Evidence from China	(Liu et al., 2024)	Listed companies in China (2013-2021); digital economy and CSR enhancement	The digital economy promotes CSR performance, especially in SOEs and large-scale companies	The digital economy facilitates the fulfillment of CSR at three levels: financial, human, and social capital	Econometric model to assess the impact of CSR on the digital economy	The digital economy improves CSR by reducing financial constraints and digital transformation



24	Factors influencing corporate social responsibility disclosure (CSRSD) by Libyan state-owned enterprises (SOEs)	(Masoud & Vij, 2021)	Libyan SOEs (n=95, 2010-2018); factors influencing CSR disclosure	The size, age, type of sector, and CSR responsibilities of the company are significant with CSR disclosure	The disclosure of SOEs CSR is mostly descriptive with charity and donations as the most disclosed items	Content analysis with multiple regression on 310 annual reports	The profile of SOE managers with CSR responsibilities has a significant influence on information disclosure
25	How does digital transformation affect the ESG performance of Chinese manufacturing state-owned enterprises?-Based on the mediating mechanism of dynamic capabilities and the moderating mechanism of the institutional environment	(Jin & Wu, 2024)	Shanghai-Shenzhen listed manufacturing state-owned enterprise; digital transformation and ESG performance	Digital transformation improves ESG performance through dynamic capability mechanisms	Digital transformation promotes SOEs' ESG performance through absorbent feedback mechanisms, matching responses, and innovation efficiency	OLS regression, gradual and hierarchical regression with unbalanced panels	Informal systems and digital transformation have synergistic governance effects on SOEs' ESG performance



Figure 2.
Journal Publication Trends by Year (2021-2025)



The publication trend graph shows the development of academic interest in CSR relationships, stakeholders, and digital transformation during the period 2021-2025. This temporal analysis identifies a significantly increased research momentum post-pandemic, reflects the urgency of the topic in the context of the digital age and provides a strong justification for the relevance of this research in 2025.”

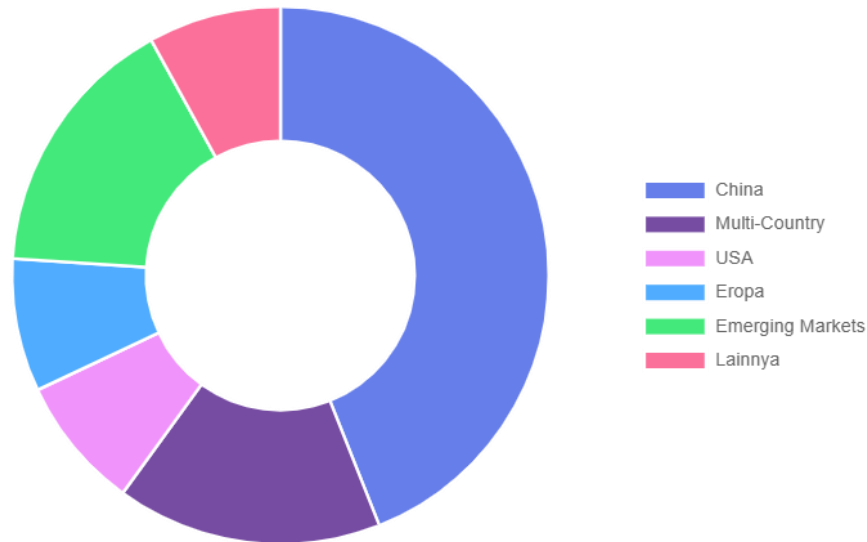


Figure 3.
Geographic Focus Distribution of Research

The study focuses on rising economies, notably China and emerging markets, as shown by its geographical distribution. The significant importance of CSR-stakeholder concerns for nations with robust SOE sectors is demonstrated by this trend. The study of Indonesian SOEs is best understood in the context of the prevalence of Asian research, considering the parallels between the characteristics of state-owned enterprise governance in the regional region.

Table 2.

Classification of the Main Themes of Research

Main Themes	Number of Journals	Percentage	Dominant Keywords
CSR & Firm Performance	8	32%	Financial performance, ROA, Stakeholder theory
Digital Transformation & CSR	6	24%	Digital era, Innovation, Digital transformation



State-Owned Enterprises (SOEs)	5	20%	SOEs, Governance, Government subsidies
Stakeholder Engagement	4	16%	Stakeholder integration, Engagement quality
ESG & Sustainability	2	8%	ESG performance, Sustainable development

The thematic classification identifies five main research clusters from 25 synthesis journals. This table maps the distribution of academic focus, showing the dominance of CSR performance themes (32%), digital transformation (24%), and SOEs (20%). This analysis reveals a research gap and positions this study on three dominant themes: stakeholder implementation, CSR performance, and the context of SOEs in the digital era.

The involvement of stakeholders positively affects the CSR performance of state-owned enterprises in the digital landscape of 2025. This aligns with the research by Omidvar et al. (2025), which indicates that innovation in business models plays a critical role in connecting corporate social responsibility with overall corporate performance. Shin (2021) highlighted a significant change in corporate governance from focusing on shareholders to prioritizing stakeholders. According to Zhang et al. (2022), a governance system centered on stakeholders greatly affects a company's commitment to CSR. Koh (2022) noted that businesses excelling in CSR tend to produce higher-quality reports, showcasing enhanced engagement with stakeholders. Alshukri et al. (2024) support the idea that CSR contributes positively to creating sustainable value and enhancing innovation capabilities.

The size and role of stakeholders in organization actions affect how well SOEs perform in terms of CSR. Ramdhan and others in 2022 discovered that when internal stakeholders are involved, it boosts adaptability by increasing motivation for services and dedication to social norms. Mu and colleagues in 2024 divided CSR into two types, with the primary focus having a stronger impact. Waheed and Zhang in 2022 showed that being responsible to communities, customers, and suppliers positively connects to long-lasting competitive success. Adomako and Tran in 2022 pointed out that including stakeholders influences CSR commitments, which help achieve social performance for businesses. R. Zhang and others in 2022 mentioned that managing non-state shareholders enhances SOEs' social responsibility performance by improving internal control systems.

Digital transformation plays a complicated role in how stakeholder actions relate to CSR performance. Wang and Yan in 2023 indicated that digital



transformation boosts innovation performance and that CSR enhances this effect. Liu and colleagues in 2024 found that the rise of the digital economy enhances CSR performance by easing financial pressures and making things more transparent. Jin and Wu in 2024 supported the idea that digital transformation improves the ESG performance of manufacturing SOEs by utilizing dynamic capabilities. Han and others in 2024 added that digital communication with stakeholders serves as a vital link. Ji et al. in 2025 confirmed that there is a U-shaped connection between ESG performance and the value of SOEs, with digital transformation acting as a helpful factor. Cui and colleagues in 2025 explained that the digital economy affects how CSR relates to energy efficiency in companies.

There are notable variations in how stakeholder actions relate to CSR performance across different SOE sectors. Arian and others in 2023 discovered that businesses in the consumer market sector gain long-term financial advantages from CSR activities, while those in the industrial sector do not follow the same trend. Martos-Pedrero and colleagues in 2023 revealed that innovation acts as a barrier in the connection between CSR and export performance, with related businesses gaining more benefits. Ervits in 2023 pointed out that CSR reporting is quite similar between SOEs and non-SOEs in China due to strong pressures to conform. Masoud and Vij in 2021 found that the size, age, and sector type of a company significantly influence how much CSR information is shared in Libyan SOEs.

Factors related to the context that should be considered include features of state ownership, the surrounding institutional setting, and the monitoring by stakeholders. Zhang and colleagues. Research conducted in 2023 indicated that when state capital ownership exceeds 5%, it enhances the CSR performance of private firms. Bai and others. In 2023, it was identified that government subsidies influence the connection between stakeholder-oriented corporate social responsibility and company performance. Forcadell and colleagues. The study conducted in 2023 highlighted that the monitoring by stakeholders influences the trustworthiness of CSR signals. Garcia-Blandon and colleagues. The findings of 2024 show that corporate governance shapes the relationships among leaders, sustainability, and performance, highlighting differences between countries with common law and those with civil law. Yousaf and Nguyen (2025) introduced a demographic aspect indicating that the age of the CEO has a negative impact on the level of corporate stakeholder engagement.



CONCLUSION

According to this research, stakeholder implementation has a beneficial impact on the Corporate Social Responsibility performance of state-owned enterprises in the digital era in 2025. The paradigm shift in corporate governance from focusing on shareholders to encompassing all stakeholders is shown by the synthesis of 25 periodicals. The orientation of primary stakeholders has a greater impact on CSR performance than that of secondary stakeholders in the implementation dimension of stakeholders. Through enhanced transparency, lower financial restrictions, and improved dynamic capabilities, digital transformation acts as a sophisticated moderator that improves the connection between stakeholder implementation and CSR performance. There were notable differences between industries, with consumer market firms benefiting more from sustainable finance than those in the manufacturing sector. The institutional environment, government subsidies, stakeholder oversight, the nature of state ownership, and even the demographic profile of the CEO, which influences the degree of corporate stakeholder interaction, are all important contextual considerations.

Therefore, SOE managers must create a stakeholder implementation plan that gives priority to primary stakeholders while yet taking secondary stakeholders' expectations into account in a fair manner. Given its beneficial role in mediating the connection between stakeholder implementation and CSR performance, speeding up digital transformation should be a strategic priority. Considering the variances in the patterns of benefits across industries, businesses must take a sector-specific strategy when developing CSR programs. The government, as the majority shareholder, should be encouraged to maximize the use of incentives and subsidies to promote sustainable CSR activities. In order to develop a long-term stakeholder engagement plan, the board of commissioners must take into account the demographic makeup of leadership, such the age of the CEO. Future study is recommended utilizing a longitudinal method with dynamic panel data to further investigate the mediation mechanism of stakeholder digital communication in the context of Indonesian state-owned businesses and to establish causal linkages. In order to properly understand the findings of this study, it is important to take into account a few of its limitations. First, the literature synthesis is dominated by studies from Asian, particularly Chinese, contexts, which may restrict the generalizability of results in the context of Indonesian SOEs with diverse institutional features. Second, the systematic literature review technique excludes data collection.

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