

Corporate Social Responsibility Measurement Systems: A Systematic Literature Review of Sustainability Indexes and Evaluation Models

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ABSTRACT. *This study conducts a qualitative systematic literature review of Corporate Social Responsibility (CSR) measurement systems, focusing on sustainability indexes and evaluation models. The aim is to synthesize existing research on how CSR performance is operationalized, measured, and interpreted across Environmental, Social, and Governance (ESG) based frameworks. Using a systematic review approach, the study integrates findings from peer reviewed literature to identify dominant measurement structures, methodological trends, and persistent challenges in CSR assessment.*

The results indicate that CSR measurement systems are primarily categorized into sustainability index based models, ESG rating systems, and multi criteria evaluation frameworks. While these systems enhance transparency and comparability in corporate sustainability assessment, significant limitations remain, particularly regarding methodological inconsistency, lack of standardization, and variability in weighting mechanisms across ESG indicators. The study concludes that CSR measurement systems are increasingly integrated into financial and governance decision making processes, yet their effectiveness is constrained by fragmentation and limited methodological transparency. This review contributes to the literature by providing a comprehensive synthesis of CSR measurement approaches and identifying key directions for future standardization and methodological improvement.

Keywords *Corporate Social Responsibility, ESG Measurement, Sustainability Index, Evaluation Models, Systematic Literature Review*

INTRODUCTION

Corporate Social Responsibility (CSR) has undergone a significant transformation over the past decades, evolving from a philanthropic and voluntary activity into a strategic and multidimensional framework embedded within corporate governance and sustainability agendas (Bowen, 2013; Garriga & Melé, 2004). Initially conceptualized as the obligation of businesses to pursue policies desirable in terms of societal objectives, CSR has expanded to incorporate environmental, social, and governance (ESG) considerations, reflecting a broader commitment to sustainable development (Abreu & Badii, 2008; Wan-Jan, 2006). This transformation has been further reinforced by global initiatives such as the United Nations Global Compact and the transition from the Millennium Development Goals (MDGs) to the Sustainable Development Goals (SDGs), which emphasize the role of corporations as key actors in achieving global sustainability targets (Sachs, 2012; Kumar et al., 2016).

The conceptual foundation of CSR is strongly rooted in Stakeholder Theory, which posits that organizations must consider the interests of all stakeholders including investors, employees, customers, suppliers, and society at large in their decision making

processes (Freeman et al., 2010; Freeman & McVea, 2005). This perspective challenges the traditional shareholder centric view and promotes a more inclusive model of corporate governance, often referred to as stakeholder capitalism (Freeman et al., 2007). In parallel, the Triple Bottom Line (TBL) framework introduced by Elkington (2007) has further expanded CSR by integrating economic, environmental, and social dimensions into business performance evaluation. These theoretical developments have collectively driven the need for robust and comprehensive systems to measure and assess CSR performance. CSR has negative impact to accrual earnings management and positive impact to real earnings management through cash flow operation and they're not significant (Kumandang, C., & Hendriyeni, N., 2021).

The growing importance of CSR has coincided with the rapid expansion of Socially Responsible Investment (SRI), which integrates ESG criteria into investment decisions (Sparkes, 2002; Sparkes & Cowton, 2004). Financial markets increasingly demand reliable and comparable information on corporate sustainability performance, leading to the emergence of Corporate Sustainability Systems (CSS), including sustainability indexes, rankings, and ratings (Diez-Cañamero et al., 2020). These measurement systems aim to quantify and benchmark corporate ESG performance, thereby facilitating decision making for investors and other stakeholders. However, despite their widespread adoption, the CSR measurement landscape remains highly fragmented and heterogeneous (Windolph, 2011; Nizamuddin, 2017).

Sustainability indexes, such as those developed by stock exchanges and financial institutions, are among the most prominent tools used to evaluate CSR performance. These indexes typically select companies based on predefined ESG criteria and are often used as benchmarks for sustainable investment portfolios (Consolandi et al., 2009; Fowler & Hope, 2007). In addition to indexes, ESG ratings and rankings provided by specialized agencies play a crucial role in assessing corporate sustainability. These tools differ in methodology, scope, and evaluation criteria, leading to inconsistencies and a lack of comparability across measurement systems (Chatterji et al., 2016; Escrig-Olmedo et al., 2019). As a result, stakeholders often face challenges in interpreting and utilizing CSR performance data effectively. Operational resilience as a novelty for Corporate Sustainable Longevity is a differentiator to increase the capacity and responsiveness of the company's management to face conditions of uncertainty (Irawan, D., 2022).

One of the key challenges in CSR measurement lies in the inherent complexity of sustainability itself. Sustainability encompasses multiple dimensions that are difficult to quantify and standardize, including environmental impact, social equity, and ethical governance (Pope et al., 2004; Rahdari & Anvary-Rostamy, 2015). Furthermore, the lack of universally accepted metrics and reporting standards contributes to discrepancies in CSR evaluation (Galant & Cadez, 2017). While frameworks such as ISO 26000 and the European Commission's CSR guidelines provide general principles, their voluntary nature limits their effectiveness in ensuring consistency across organizations (European Commission, 2001; ISO, 2010).

Another critical issue is the bias inherent in many CSR measurement systems, particularly those designed for financial markets. A significant number of sustainability indexes and ESG ratings prioritize economic and financial criteria, often at the expense of broader stakeholder considerations (Diez-Cañamero et al., 2020; Mooij, 2017). This financial bias can distort the assessment of corporate sustainability and undermine the core principles of CSR, which emphasize the integration of stakeholder interests and long term value creation (Danielson et al., 2008; Porter & Kramer, 2011). Consequently, there is a growing need to critically evaluate the methodologies and assumptions underlying CSR measurement systems. Sustainability, innovation, and dynamic factors are important capabilities for multi finance companies that need to be strengthened and developed (Patricia, M. C, 2023).

In response to these challenges, scholars have increasingly called for a more holistic and multi stakeholder approach to CSR evaluation. Such an approach recognizes the diverse needs and expectations of different stakeholder groups and seeks to balance economic, social, and environmental objectives (Jankalová & Jankal, 2017; Vives & Wadhwa, 2012). Moreover, advances in sustainability assessment methodologies, including multidimensional and linguistic models, have provided new opportunities for improving the accuracy and relevance of CSR measurement (Liern & Perez-Gladish, 2018; Skouloudis et al., 2016). Nevertheless, the proliferation of diverse measurement tools continues to create confusion and uncertainty among users.

Given this context, a systematic literature review of CSR measurement systems is both timely and necessary. By synthesizing existing research on sustainability indexes, rankings, and evaluation models, this study aims to provide a comprehensive overview

of the current state of CSR measurement. Specifically, it seeks to identify the key characteristics, strengths, and limitations of different measurement approaches, as well as the extent to which they align with stakeholder theory and sustainability principles. This is particularly important in light of the increasing reliance on CSR metrics for strategic decision-making, investment analysis, and corporate accountability.

Furthermore, this review contributes to the literature by addressing the fragmentation of CSR measurement systems and offering a structured framework for their classification and comparison. Building on prior studies that categorize CSS into indexes, ratings, and rankings (Diez-Cañamero et al., 2020), this research adopts a qualitative and systematic approach to analyze their methodologies and evaluation criteria. By doing so, it provides valuable insights for academics, practitioners, and policymakers seeking to enhance the effectiveness and credibility of CSR measurement.

The evolution of CSR from a peripheral activity to a central component of corporate strategy has created an urgent need for reliable and comprehensive measurement systems. While sustainability indexes and evaluation models play a crucial role in assessing corporate performance, their diversity and methodological inconsistencies pose significant challenges. This study addresses these issues by systematically reviewing the literature on CSR measurement systems, with the aim of advancing understanding and supporting the development of more robust and inclusive evaluation frameworks.

LITERATURE REVIEW

Corporate Social Responsibility (CSR) has evolved into a central component of corporate strategy, driven by increasing stakeholder expectations, regulatory pressures, and the global emphasis on sustainable development. The growing importance of CSR has led to the development of various measurement systems aimed at assessing corporate sustainability performance. These systems include sustainability indexes, reporting frameworks, and evaluation models that seek to standardize and quantify CSR practices across industries and regions. However, the diversity of these systems has also created challenges related to comparability, reliability, and validity.

One of the most widely discussed CSR measurement approaches is sustainability reporting frameworks, such as the Global Reporting Initiative (GRI). The GRI framework has become a global standard for sustainability reporting, providing structured guidelines

for organizations to disclose their economic, environmental, and social impacts (Global Reporting Initiative, 2021). Studies have shown that organizations adopting GRI standards tend to demonstrate improved transparency and stakeholder engagement, although inconsistencies in reporting quality remain a concern (Hahn & Kühnen, 2013). Furthermore, the adoption of integrated reporting frameworks, such as those promoted by the International Integrated Reporting Council (IIRC), has further expanded the scope of CSR measurement by linking financial and non-financial performance indicators (Eccles & Krzus, 2018).

Sustainability indexes represent another critical dimension of CSR measurement systems. Prominent examples include the Dow Jones Sustainability Index (DJSI), FTSE4Good Index, and MSCI ESG Ratings. These indexes evaluate corporate performance based on Environmental, Social, and Governance (ESG) criteria and provide benchmarks for investors seeking socially responsible investment opportunities. Research indicates that firms included in sustainability indexes tend to exhibit superior financial performance and risk management capabilities (Friede et al., 2015). However, methodological differences among these indexes can lead to inconsistent ratings for the same company, raising concerns about their reliability and comparability (Berg et al., 2022).

Evaluation models for CSR measurement have also been extensively developed in academic literature. One of the foundational models is Carroll's Pyramid of Corporate Social Responsibility, which conceptualizes CSR as comprising economic, legal, ethical, and philanthropic responsibilities (Carroll, 1991). While this model provides a theoretical framework, it lacks operational metrics for empirical assessment. In response, scholars have proposed multidimensional models incorporating quantitative indicators, such as stakeholder satisfaction, environmental impact metrics, and governance quality (Wood, 2010). These models aim to provide a more comprehensive and measurable approach to CSR evaluation.

Another important stream of literature focuses on ESG scoring systems used by rating agencies and financial institutions. ESG scores are increasingly used by investors to assess corporate sustainability risks and opportunities. According to recent studies, ESG performance is positively correlated with long-term financial performance and resilience during economic crises (Broadstock et al., 2021). However, the lack of

standardization across ESG rating providers has been widely criticized, as different agencies often produce divergent scores for the same firms (Berg et al., 2022). This divergence highlights the need for more harmonized measurement systems.

The integration of digital technologies and data analytics has also influenced CSR measurement systems. Advances in big data, artificial intelligence, and blockchain have enabled more accurate and real-time tracking of sustainability metrics (Kotsantonis & Serafeim, 2019). These technologies enhance the credibility and traceability of CSR data, reducing the risk of greenwashing. Nevertheless, challenges related to data quality, privacy, and standardization remain significant barriers to widespread adoption.

Systematic literature reviews on CSR measurement systems have identified several key challenges and research gaps. First, there is a lack of consensus on standardized indicators for measuring CSR performance, which limits comparability across organizations and industries (Siew, 2015). Second, many existing measurement systems focus primarily on environmental aspects, often neglecting social and governance dimensions (Fatemi et al., 2018). Third, the voluntary nature of many CSR reporting frameworks can lead to selective disclosure and biased reporting (Cho et al., 2015).

Empirical studies have also examined the impact of CSR measurement systems on corporate behavior. For instance, research by Eccles et al. (2014) found that companies with strong sustainability measurement systems tend to adopt more long-term oriented strategies and outperform their peers in terms of stock market performance. Similarly, studies have shown that transparent CSR reporting can enhance corporate reputation and stakeholder trust (Du et al., 2010). However, the effectiveness of these systems largely depends on the credibility and consistency of the underlying measurement methodologies.

Recent developments in regulatory frameworks have further influenced CSR measurement practices. Governments and international organizations are increasingly mandating sustainability disclosures, such as the European Union's Corporate Sustainability Reporting Directive (CSRD). These regulations aim to improve the reliability and comparability of CSR data by establishing standardized reporting requirements (European Commission, 2022). Such regulatory initiatives are expected to address some of the limitations of voluntary reporting systems.

CSR measurement systems have become essential tools for evaluating corporate sustainability performance. Sustainability indexes, reporting frameworks, and evaluation models each offer unique contributions to CSR assessment, but they also present significant challenges related to standardization, reliability, and comparability. The literature suggests that while progress has been made in developing comprehensive measurement systems, further research is needed to harmonize methodologies and enhance the credibility of CSR data. Future studies should focus on integrating technological innovations, improving indicator standardization, and addressing the multidimensional nature of sustainability to develop more robust and reliable CSR measurement systems.

METHODS

This study adopts a systematic literature review (SLR) methodology to synthesize prior research on Corporate Social Responsibility (CSR) Measurement Systems: Sustainability Indexes and Evaluation Models. A systematic approach is selected because it ensures transparency, replicability, and comprehensiveness in identifying, selecting, and analyzing relevant studies (Tranfield et al., 2003). In addition, the review protocol follows the PRISMA 2020 guidelines, which provide a structured framework for reporting systematic reviews in a rigorous and transparent manner (Page et al., 2021).

The review is designed as a qualitative systematic synthesis focusing on how CSR measurement systems are conceptualized, operationalized, and evaluated across different sustainability frameworks and index-based models. The review protocol is structured around five key stages: (1) formulation of research questions, (2) identification of relevant literature, (3) screening and eligibility assessment, (4) quality appraisal, and (5) qualitative synthesis of findings. This structure is consistent with established SLR methodologies in management and accounting research (Kitchenham & Charters, 2007; Tranfield et al., 2003).

A comprehensive search strategy is implemented using multiple academic databases to ensure broad coverage of peer-reviewed literature. The search keywords include combinations of terms such as “corporate social responsibility measurement,” “sustainability index,” “ESG evaluation model,” “CSR performance measurement,” and

“corporate sustainability assessment framework.” Boolean operators (and/or) are used to refine search precision and improve relevance.

The time frame for literature selection is limited to studies published between 2000 and 2025 to capture the evolution of CSR measurement systems, particularly following the global expansion of sustainability reporting standards such as the Global Reporting Initiative (GRI) and ESG-based frameworks.

The study applies strict inclusion and exclusion criteria to ensure the relevance and quality of selected studies. Inclusion criteria consist of: (1) peer reviewed journal articles, (2) studies focusing on CSR measurement, sustainability indexes, or ESG evaluation models, (3) empirical, conceptual, or review based studies, and (4) publications in English. Exclusion criteria include: (1) non academic sources such as reports without peer review, (2) studies unrelated to CSR measurement systems, and (3) duplicate publications across databases.

The study selection follows the PRISMA flow diagram approach (Page et al., 2021). Initially, all identified records are imported into a reference management system, and duplicates are removed. Subsequently, titles and abstracts are screened for relevance, followed by full text eligibility assessment. Only studies meeting all inclusion criteria are retained for final synthesis. This multi stage screening process ensures methodological rigor and minimizes selection bias.

To ensure the reliability and validity of the synthesized literature, each selected study is assessed using a qualitative quality appraisal framework adapted from established systematic review guidelines (Dixon-Woods et al., 2006). The evaluation criteria include methodological rigor, clarity of CSR measurement constructs, data transparency, and relevance to sustainability indexing or evaluation models.

Data extraction is conducted using a structured extraction form, capturing key information such as authorship, publication year, theoretical framework, CSR measurement approach, type of sustainability index used, and main findings. The analysis follows a thematic synthesis approach, allowing the identification of recurring patterns, conceptual models, and methodological trends in CSR measurement systems.

The synthesis process involves coding the literature into thematic categories such as ESG based measurement models, stakeholder-oriented CSR indices, firm level sustainability scoring systems, and integrated performance evaluation frameworks. This

approach enables a deeper conceptual understanding of how CSR measurement systems have evolved and how they differ across contexts and methodologies.

A qualitative narrative synthesis is employed to integrate findings across studies. This method is appropriate for heterogeneous literature where statistical meta-analysis is not feasible due to conceptual and methodological diversity (Popay et al., 2006). The synthesis focuses on identifying convergence and divergence in CSR measurement approaches, as well as assessing the strengths and limitations of widely used sustainability indexes such as the Dow Jones Sustainability Index (DJSI) and Global Reporting Initiative (GRI)-based frameworks.

RESULTS

The systematic literature review reveals that Corporate Social Responsibility (CSR) measurement systems have significantly evolved from voluntary disclosure tools into structured Environmental, Social, and Governance (ESG) based evaluation architectures. Across the reviewed literature, CSR measurement is primarily operationalized through three dominant approaches: sustainability indexes, ESG rating systems, and integrated performance evaluation models (Diez-Cañamero et al., 2020).

Recent systematic reviews indicate that ESG measurement studies have increased substantially in the last decade, particularly between 2020 and 2025, reflecting growing regulatory pressure and investor demand for standardized sustainability information (Dauerer, 2025; Jámor & Zánócz, 2023). The selected studies consistently emphasize that CSR measurement systems are no longer homogeneous instruments but rather fragmented ecosystems composed of multiple competing methodologies.

Sustainability Index Based Systems. Sustainability indexes represent one of the earliest and most widely adopted CSR measurement approaches. These indexes aggregate firm-level ESG indicators into composite scores to facilitate benchmarking and investment decisions. Common examples discussed in the literature include global and regional sustainability indices that evaluate corporate performance based on environmental impact, social responsibility, and governance quality.

Diez-Cañamero et al. (2020) identify that sustainability indexes are typically constructed using weighted scoring models, where ESG indicators are standardized and aggregated into a single composite measure. However, the study highlights a critical

limitation: heterogeneity in weighting schemes leads to inconsistencies in cross index comparability.

Similarly, recent ESG focused reviews confirm that index based systems remain highly sensitive to methodological assumptions, particularly in indicator selection and normalization techniques. ESG Rating and Scoring Models. The second dominant category consists of ESG rating systems developed by specialized agencies. These systems translate CSR performance into categorical or numerical ratings that guide investors and stakeholders. The literature consistently identifies a lack of convergence among ESG rating agencies, resulting in what has been described as “aggregate confusion” in sustainability assessments. Differences arise due to variations in: indicator selection, weighting methodologies, data sources, qualitative judgment integration. Jám bor and Zanócz (2023) further argue that ESG ratings often suffer from subjectivity and limited transparency, which reduces their reliability for financial decision-making and cross-company comparison.

Moreover, sustainability rating divergence has become a central concern in recent research, as inconsistent ESG scores can significantly distort investment allocation decisions. A third emerging category is the development of integrated CSR performance models that combine financial and non-financial indicators into unified evaluation systems. These models aim to overcome the limitations of isolated ESG scoring by embedding sustainability metrics into broader corporate performance frameworks.

Recent systematic reviews show that integrated models increasingly rely on multi-criteria decision-making (MCDM) techniques, such as: Analytic Hierarchy Process (AHP), Fuzzy logic systems, Data Envelopment Analysis (DEA), hybrid sustainability scoring frameworks.

Farahdel et al. (2024) emphasize that these models enhance decision robustness by capturing interdependencies among environmental, social, and governance dimensions. However, they also note that methodological complexity remains a barrier to practical implementation.

Across the reviewed literature, Stakeholder Theory emerges as the dominant theoretical foundation supporting CSR measurement systems. CSR indicators are increasingly designed to reflect the interests of multiple stakeholders rather than shareholders alone (Freeman’s stakeholder logic as widely adopted in CSR literature).

Institutional Theory is also frequently used to explain the convergence of CSR measurement practices under global reporting standards such as GRI and IFRS Sustainability Disclosure Standards. Together, these theories suggest that CSR measurement systems are not purely technical instruments but also institutional mechanisms shaped by regulatory pressure, investor expectations, and legitimacy concerns.

The synthesis of literature identifies several recurring limitations: Lack of Standardization. CSR measurement systems lack universal standards, resulting in inconsistent ESG scores across providers. Methodological Heterogeneity. Different index providers and rating agencies use incompatible methodologies, reducing comparability (Diez-Cañamero et al., 2020). Governance Dimension Weakness. The governance pillar remains underdeveloped compared to environmental metrics, limiting holistic assessment (Dauerer, 2025). Data Transparency Issues. Many ESG systems rely on proprietary algorithms, limiting external validation and reproducibility (Jámbor & Zanócz, 2023).

Emerging Trends in CSR Measurement Systems. The literature identifies several emerging developments: Increasing adoption of AI and machine learning in ESG scoring models, Integration of sustainability indexes with financial valuation models, Movement toward standardized global reporting frameworks (e.g., ISSB, GRI), Growing demand for real-time sustainability data analytics. These trends suggest a transition toward more dynamic, data-driven CSR measurement ecosystems.

Overall, the systematic review demonstrates that CSR measurement systems are evolving toward more integrated, standardized, and data intensive frameworks. However, persistent issues of methodological inconsistency, lack of transparency, and theoretical fragmentation continue to limit their effectiveness as universal sustainability assessment tools.

DISCUSSION

The findings of this systematic literature review indicate that Corporate Social Responsibility (CSR) measurement systems have undergone a significant transformation from traditional disclosure-based approaches to integrated Environmental, Social, and Governance (ESG)-oriented performance evaluation frameworks. This transformation reflects increasing institutional pressure from regulators, investors, and global reporting

initiatives demanding standardized sustainability information (Diez-Cañamero et al., 2020; Jiang et al., 2024).

Comparative analysis with prior studies confirms this structural evolution. Diez-Cañamero et al. (2020) demonstrate that early CSR measurement systems were primarily constructed through sustainability indexes and rating systems focusing heavily on environmental indicators. Similarly, Serafeim (2020) highlights that CSR measurement has shifted from philanthropic reporting toward strategic value assessment embedded in corporate governance systems.

Jiang et al. (2024) further extend this view by showing that global ESG indexes have evolved into multi-dimensional benchmarking tools that incorporate financial markets' expectations, reinforcing the convergence between sustainability reporting and investment decision making. This evolution indicates that CSR measurement is no longer a purely ethical construct but has become a financialized evaluation system embedded in capital market logic.

Persistent Fragmentation of Sustainability Indexes. One of the most critical findings of this review is the persistent fragmentation of sustainability indexes. Despite increasing standardization efforts, CSR measurement systems remain highly heterogeneous in terms of methodology, weighting schemes, and indicator selection.

Diez-Cañamero et al. (2020) emphasize that sustainability indexes represent a “chaotic universe” of measurement systems due to the lack of standardized classification frameworks. This fragmentation is echoed by Serzante and Khudozhnyk (2023), who found that enterprise sustainability measurement methods vary widely across industries and regions, resulting in inconsistent ESG performance evaluation.

Similarly, Koenigsmarck and Geissdoerfer (2023) argue that socially responsible investment (SRI) indicators differ significantly in structure and scope, making comparability across firms extremely limited. These inconsistencies reduce the reliability of CSR measurement systems for both academic and investment purposes.

Farahdel et al. (2024) also confirm that sustainability assessment frameworks suffer from inconsistent indicator selection processes, particularly in multi criteria decision making systems, where subjective weighting remains a major limitation. This reinforces the conclusion that methodological divergence remains a structural weakness in CSR measurement systems.

ESG Rating Divergence and Validity Concerns. A major issue identified across the reviewed literature is ESG rating divergence, where different agencies produce significantly different scores for the same firm. This problem raises serious concerns about construct validity and measurement reliability.

Jámbor and Zanócz (2023) highlight that ESG ratings are often inconsistent due to subjective interpretation of non-financial indicators and lack of transparency in scoring methodologies. This leads to reduced trust in ESG scores among investors and stakeholders.

Koenigsmarck and Geissdoerfer (2023) similarly find that sustainability indicators used in socially responsible investment decisions are often not comparable across systems, limiting their effectiveness in guiding investment behavior.

Diez-Cañamero et al. (2020) further argue that ESG ratings are influenced by proprietary methodologies that are not fully disclosed, creating a “black box problem” in CSR measurement systems.

Serzante and Khudozhnyk (2023) reinforce this critique by showing that even standardized sustainability measurement methods fail to eliminate inconsistencies due to differences in interpretation and implementation across organizational contexts.

Imbalance Across ESG Dimensions. Another consistent finding across the literature is the imbalance in ESG dimensions. Environmental indicators dominate CSR measurement systems, while governance and social dimensions remain underdeveloped.

Dauerer (2024) confirms that environmental metrics receive significantly more attention in sustainability performance measurement systems compared to governance and social indicators. This imbalance results in partial representation of corporate sustainability performance.

Jámbor and Zanócz (2023) also report that governance indicators are the least developed component of ESG frameworks, often due to difficulties in quantification and standardization. Similarly, Serafeim (2020) notes that CSR measurement systems historically prioritize environmental metrics such as emissions and resource efficiency, while social indicators such as labor conditions remain inconsistently measured. This imbalance creates a structural bias in CSR measurement systems, potentially distorting corporate sustainability assessments and investment decisions.

Increasing Integration of Decision Support and Composite Models. Recent literature indicates a growing shift toward decision support systems and composite evaluation models in CSR measurement. These models aim to overcome limitations of traditional index-based approaches by integrating multiple indicators using structured methodologies.

Dauerer (2024) identifies decision-support models and composite ESG indexes as dominant tools in modern sustainability performance measurement systems. These models attempt to integrate environmental, social, and governance indicators into unified performance metrics.

Koenigsmarck and Geissdoerfer (2023) further highlight that socially responsible investment frameworks increasingly rely on hybrid models combining financial and non-financial indicators. However, they also note that these models remain limited by inconsistent weighting assumptions.

Farahdel et al. (2024) contribute to this discussion by showing that multi-criteria decision-making (MCDM) techniques such as fuzzy AHP and DEMATEL are increasingly used to improve indicator prioritization and interdependency analysis. These methods enhance analytical rigor but remain sensitive to subjective parameter selection.

Theoretical Foundations: Stakeholder and Institutional Perspectives. The reviewed literature consistently identifies Stakeholder Theory and Institutional Theory as dominant theoretical foundations underpinning CSR measurement systems.

Diez-Cañamero et al. (2020) argue that CSR measurement systems are fundamentally grounded in Stakeholder Theory, which emphasizes accountability to multiple stakeholder groups rather than shareholders alone. This theoretical foundation explains the multidimensional structure of ESG frameworks.

Jiang et al. (2024) further demonstrate that institutional pressures from global financial markets and regulatory bodies have led to the convergence of ESG indexes across regions, reflecting Institutional Theory dynamics.

Serzante and Khudozhnyk (2023) also emphasize that institutional pressures significantly influence the adoption of sustainability measurement frameworks in enterprises, particularly in regulated industries. Together, these studies show that CSR measurement systems are not only technical tools but also institutional mechanisms shaped by global governance structures.

CSR Measurement Systems in Financial Markets. CSR measurement systems have become increasingly integrated into financial decision-making processes. Koenigsmarck and Geissdoerfer (2023) find that sustainability indicators are widely used in socially responsible investment (SRI) strategies, influencing portfolio allocation decisions.

Jiang et al. (2024) further demonstrate that ESG indexes are now central components of global capital markets, directly affecting corporate valuation and investor behavior.

However, Diez-Cañamero et al. (2020) caution that despite widespread use, sustainability indexes often lack methodological consistency, which may lead to misinformed investment decisions.

This tension highlights a paradox: while CSR measurement systems are increasingly influential in financial markets, their methodological weaknesses remain unresolved.

The synthesis of literature reveals several critical gaps. First, there is no universal standard for CSR measurement systems, leading to persistent comparability issues (Diez-Cañamero et al., 2020; Koenigsmarck & Geissdoerfer, 2023). Second, ESG ratings suffer from methodological opacity and inconsistent scoring practices (Jámbor & Zanócz, 2023). Third, governance and social dimensions remain underdeveloped compared to environmental indicators (Dauerer, 2024).

Future research should focus on developing standardized ESG measurement protocols, improving transparency in rating methodologies, and enhancing integration between financial and non-financial performance indicators. Additionally, interdisciplinary approaches combining accounting, data science, and sustainability governance are needed to strengthen CSR measurement validity.

Overall, the discussion demonstrates that CSR measurement systems have evolved into complex ESG based frameworks that significantly influence corporate and investment decision making. However, persistent fragmentation, methodological inconsistency, and imbalance across ESG dimensions continue to limit their reliability. While decision support models and composite indexes offer promising improvements, full standardization of CSR measurement systems remains an unresolved challenge in sustainability accounting research.

CONCLUSION

This systematic literature review provides a comprehensive synthesis of Corporate Social Responsibility (CSR) measurement systems, with a specific focus on sustainability indexes and evaluation models. The findings demonstrate that CSR measurement has evolved from fragmented disclosure-based approaches into more structured Environmental, Social, and Governance (ESG) integrated frameworks that are increasingly embedded in financial markets and corporate governance systems (Diez-Cañamero et al., 2020; Jiang et al., 2024).

The review identifies three dominant CSR measurement paradigms. First, sustainability index based systems aggregate ESG indicators into composite scores that enable benchmarking across firms and industries. However, these systems remain methodologically inconsistent due to differences in weighting schemes and indicator selection (Diez-Cañamero et al., 2020). Second, ESG rating systems developed by specialized agencies have become widely used in investment decision making, yet they suffer from significant divergence and lack of transparency, leading to inconsistent assessments of corporate sustainability performance (Jámbor & Zanócz, 2023; Koenigsmarck & Geissdoerfer, 2023). Third, integrated evaluation models, particularly those based on multi criteria decision making (MCDM), represent an emerging approach aimed at improving analytical robustness and capturing interdependencies among ESG dimensions (Farahdel et al., 2024).

Overall, the synthesis indicates that CSR measurement systems are increasingly influenced by institutional pressures and stakeholder expectations, reflecting the theoretical foundations of Stakeholder Theory and Institutional Theory (Serafeim, 2020). These systems are no longer limited to voluntary reporting tools but have become critical components of capital market evaluation mechanisms. ESG indexes now play a significant role in shaping investment flows, corporate reputation, and financial valuation processes (Jiang et al., 2024).

However, despite these advancements, the review reveals persistent structural limitations. A major issue is the lack of standardization across CSR measurement systems, which leads to inconsistencies in ESG ratings and reduces comparability across firms and regions. Additionally, the dominance of environmental indicators over social and governance dimensions creates an imbalance that weakens the comprehensiveness of

sustainability assessments (Dauerer, 2024). Furthermore, methodological opacity in proprietary ESG rating systems continues to undermine trust and reliability in sustainability evaluation outcomes (Jámbor & Zanócz, 2023).

In conclusion, while CSR measurement systems have evolved significantly and are now deeply embedded in financial and institutional frameworks, their effectiveness is still constrained by fragmentation, inconsistency, and lack of universal standards. Future development of CSR measurement systems must focus on harmonization of ESG indicators, improvement of methodological transparency, and integration of advanced analytical techniques to enhance reliability and decision-usefulness.

LIMITATION

Despite its systematic and structured approach, this literature review has several limitations that should be acknowledged. First, the study is limited by its reliance on secondary data derived exclusively from peer reviewed academic literature. As a result, the findings may not fully capture emerging industry practices, proprietary ESG methodologies, or non academic sustainability frameworks used by rating agencies and financial institutions.

Second, although the review follows a systematic literature review protocol, the inclusion and exclusion criteria may introduce selection bias. The restriction to English language publications and indexed journal articles may exclude relevant studies published in other languages or in grey literature sources, potentially limiting the comprehensiveness of the findings (Diez-Cañamero et al., 2020).

Third, the heterogeneity of CSR measurement systems across studies poses a challenge for synthesis. Differences in methodological design, indicator selection, and regional ESG standards make it difficult to establish direct comparability across studies, which may affect the generalizability of the conclusions (Koenigsmarck & Geissdoerfer, 2023).

Fourth, the rapid evolution of ESG frameworks and sustainability reporting standards means that some findings may become outdated as new regulatory developments and methodological innovations emerge. For instance, ongoing changes in global sustainability reporting standards may significantly reshape CSR measurement practices in the near future (Jiang et al., 2024).

Finally, this study does not include quantitative meta analysis due to the qualitative nature and conceptual diversity of the reviewed literature. While thematic synthesis provides rich conceptual insights, it does not allow for statistical estimation of effect sizes or measurement precision across CSR frameworks.

Despite these limitations, the study provides a robust conceptual foundation for understanding the evolution, structure, and challenges of CSR measurement systems. It contributes to the growing body of literature by synthesizing diverse sustainability indexes and evaluation models into a coherent analytical framework, highlighting both progress and persistent gaps in ESG measurement practices.

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