

## Integrating Circular Economy Principles Into Corporate Governance: A Pathway To Enhanced Corporate Social Responsibility”

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### Abstract

In the face of escalating social and environmental challenges, the integration of circular economy principles into corporate governance emerges as a vital strategy for enhancing CSR (Corporate Social Responsibility) and achieving sustainable development.

In this way, the present study investigates the theoretical foundation of the circular economy benefiting CSR, explores the existing practices of corporate governance in terms of environmental safety, and offers specific recommendations regarding the integration of circular governance methods in current structures.

Employing a mixed methodology approach that combines a literature review, this article provides an in-depth examination of the definitions, principles, and theoretical underpinnings of the Circular economy. The study uncovers the multifaceted benefits and challenges associated with operationalizing circular economy practices within corporate governance frameworks.

Findings indicate that integrating circular economy principles into corporate governance not only strengthens CSR outcomes but also fosters innovation, stakeholder engagement, and long-term business resilience. This article contributes to the practical and academic discourse on sustainable development by providing a nuanced understanding of the intersection between circular economy, corporate governance, and CSR, and offering recommendations for businesses seeking to navigate the transition towards more sustainable and responsible practices. The research underscores the significance of holistic governance approaches in realizing the full potential of circular economy practices for enhancing CSR and driving sustainable business success.

**Keywords:** Circular Economy, Corporate Governance, Corporate Social Responsibility, Sustainability.

**JEL Classification :** Q57, G34, M14.

### 1. Introduction

In the world’s conversation on sustainability and corporate responsibility in the past, the focus was on mitigation, but it has now shifted to transformation. This transition is fuelled by the recognition that the existing linear economic models (which is a ‘take-make-dispose’ type approach) are increasingly becoming unsustainable because finite resources end the environmental challenges. Uncovering this picture, the circular economy does not appear as an alternative, but as a must. A CE (circular economy) is an advanced economic model which strives to minimize the environmental impact of human activities through the retention of materials via their closed-loop flow. The 1990s brought in the idea of CE which provides the principle of reducing, reusing, and recycling energy, materials, and waste. CE will be regarded as the only solution that makes it possible to make the economy sustainable and to reconcile economic development with environmental protection.

The notion of CE is a recent development which gained high attention from both academics and the business community as it is considered the practical way of implementing the broadly explained and discussed idea of sustainable development (Murray et al., 2017; Ghisellini et al., 2016). It involves the system reconfiguration and technological advancement as well as the change in attitude and culture. CE involves both the economic and environmental aspects of organizations. Therefore it is linked to the sustainability of the environment (Kirchherr et al., 2017). Secondly, CE is a comprehensive subject that integrates disciplines like Business Sciences, Engineering, Environmental Sciences, Social Sciences, Design, and Economics (Luis and Celma, 2020).

The question of what should be done about CE remains to be taken up by international agencies and states. The European Union is promoting CE principles through its Green Deal strategy. India's Prime Minister launched the Global Biofuel Alliance at the G20 Summit in 2023, aiming to accelerate biofuel adoption and promote sustainable utilization. The initiative aims to facilitate energy transition in developing nations. (Edelmanglobaladvisory,2024)

The CE, with its emphasis on resource efficiency, reduction of waste, and the regeneration of natural systems, offers a pathway to sustainable development that aligns environmental stewardship with economic growth and social well-being. However, for the principles of the CE to effect tangible change, they must be integrated into the very fabric of organizational strategy and operations—beginning with Corporate Governance (CG).

CG—the framework of relationships, rules, systems, and processes within and by which authority is exercised as well as controlled in corporations—plays a pivotal role in shaping a company's approach to Corporate Social Responsibility (CSR). By integrating CE principles into CG, the management can ensure that these principles drive decision-making and strategy processes at a higher level, and gradually a culture of sustainability is built, which is present in every aspect of the enterprise.

The harmony of this integration becomes a critical tool in the CSR future, offering a comprehensive solution that simultaneously caters to environmental concerns as well as social equality and economic stability. Leading companies in this integration are not only becoming examples of top-notch corporate responsibility but also gaining the benefits of flexibility, innovation, and shares trust.

This article considers the power of this integration as an agent of change and outlines several key strategies that will be presented along with the benefits obtained as well as real-life examples from the Indian context. Through this process, it seeks to provide the community with all the tools and knowledge required for companies to manage this transition successfully, thereby contributing towards a sustainable and prosperous future.

Thus, this study seeks to answer the pivotal question: What ways of circular economy can be implemented into the CG system in order to achieve a higher corporate social responsibility level?

Accordingly, the current study seeks to accomplish the following research objectives:

1. To explore the circular economy and its relevance to corporate social responsibility.
2. To examine the current landscape of corporate governance practices with respect to environmental sustainability and CSR.
3. To identify strategies and mechanisms for embedding circular economy principles into corporate governance structures.
4. To evaluate the impact of such integration.

Scholars have begun exploring CE disclosures in the integrated reporting context analysing CE disclosures in different locations like Srilanka (Gunarathne et al., 2021) and South Africa (Myeza et al., 2021). Esposito et. al.,(2023) examined the effect of board gender diversity, independence, board size, and the existence of a CSR committee on the extent of CE disclosure in the context of Integrated reporting. To the best of our knowledge, the literature regarding the integration of CE principles into CG is scant. This article fills the gap in the academic literature by showing that integrating CE principles into CG significantly improves sustainability and ethical outcomes, which has remained largely unexplored.

The remainder of the work is structured into distinct sections. The 2<sup>nd</sup> section presents the literature review which explains the definitions, concepts, principles, current status, and strategies for integration of CE principles. The methodology is explained in the 3<sup>rd</sup> section. The 4<sup>th</sup> section presents a discussion on the significance, barriers, and benefits of integrating the CE principles with CG. The fifth section deals with certain case studies, while the sixth section concludes. The limitations and future research are explained in the seventh section.

## 2. Literature review

### *Circular Economy - definition*

Various stakeholders may have various interpretations of the CE definition (Saidani et al., 2019).

An organization dedicated to promoting the widespread adoption of CE -the Ellen MacArthur Foundation's Circular Economy, a systemic approach to address global challenges like climate change, biodiversity loss, and waste and pollution, focuses on eliminating waste, circulating products and materials, and regenerating nature (Ellen-MacArthur Foundation, 2013).

Another notable definition is that provided by the European Commission. In a Circular Economy, the objective is to maximize the longevity of products, materials, and resources within the economy while minimizing waste output. The CE, as defined by the European Parliament, is a production as well as consumption model that encompasses activities like leasing, sharing, repairing, reusing, recycling, and refurbishing resources and products for as long as possible. By doing so, the longevity of products is prolonged. (Tondo.Tech)

The concept of CE is widely known for its association with the end-of-life stage of products and the practices of reusing, reducing, recovering, and recycling materials. It operates at multiple levels, including the meso-level (eco-industrial parks), micro-level (products, companies, consumers), and macro-level (city, nation, region, and beyond), with the aim of achieving sustainable development. Kirchherr et al. (2017) examined 114 definitions of CE in order to create this comprehensive and accurate definition which is one of the most accepted. This definition emphasizes the importance of resource management in order to attain sustainable goals across the social, environmental, and economic aspects. From

this viewpoint, the notion of CE surpasses the conventional understanding that is solely associated with the environment, emphasizing the necessity to include all stakeholders within the ecosystem at every level to facilitate the process of ecological transition. CE should be regarded as a comprehensive system that encompasses all the many stakeholders in society, aiming to contribute to the improvement of "environmental quality, economic prosperity, and social equity". From this perspective, firms can be seen as crucial participants in the process of ecological transition. They serve as vital connections in the production and consumption cycle, which must remain unbroken in order to effectively close the loop on resources.

### ***Circular Economy – Principles***

An organization dedicated to promoting the widespread adoption of CE -the Ellen MacArthur Foundation - has laid down the following three principles for CE - all driven by design.

***Eliminate waste and pollution:*** This principle focuses on preventing waste as well as pollution from being developed in the 1<sup>st</sup> place. It includes redesigning products as well as processes to reduce waste, use non-toxic materials, and ensure that any waste that is produced can be reused, recycled, or composted.

***Circulate Products and Materials:*** This principle aims to extend the product and materials life cycle, maximizing their use and value. It is a key solution to practices of restoration, refurbishment, and remanufacturing and also the design of products with durability and easy disassembly for recycling (Technical cycle). It facilitates the biological cycle. The anaerobic digestion or composting processes return these materials to the soil.

***Regenerate Nature:*** Besides the aspect of harm reduction, the circular economy is oriented toward achieving positive environmental consequences. This principle implies introducing practices that are aimed at restoring and augmenting the performance of natural ecosystems, like implementing renewable energy sources, practicing regenerative agriculture, and supporting diversified biodiversity.

Currently available are numerous R frameworks, which academia and practitioners have been successfully using for many years. This circularity principle ensures that components, products, and materials are kept at their greatest value and utility by reusing, refurbishing, or remanufacturing them whenever possible (Stamevska 2020). It is achieved through the "Reduce, Reuse, and Recycle" practices that are the core concepts of the circular economy (Qiao, 2013). The CE provides the means for the creation of such an economic model which is on the basis of sustainability and ethical principles with respect to the idea of holism and regeneration (Velenturf, 2021). This model is meant to eliminate waste and make the resources be used in an efficient manner by recycling, repairing, and refurbishment the items that are already being used (Bugaian, 2020).

### ***Corporate Social Responsibility (CSR)***

CSR, better known as Corporate Citizenship, Sustainable Business, or Corporate Sustainability, is a global concept that relates to the social impact, government, health and safety, environment, working conditions, human rights, business ethics, and related economic development aspects. CSR is the phrase that is used to attract people to participate in sustainability, and it is explained differently by different writers. The term 'CSR' was used for the first time in the year 1953 in the article namely "The Social Responsibilities of the Businessman" by William J. Bowen. A detailed literature review was conducted by Dahlsrud (2008) which discovered 37 different definitions of CSR. The discussion about the clear and unbiased definition of CSR between people still continues, despite the fact that different people have tried to define it. CSR has been a subject of debate and many definitions in the field of academic and industrial sectors. Carroll (1999) expanded the concept of CSR beyond its usual focus on economic and legal obligations to include ethical and philanthropic responsibilities. This expansion was prompted by growing concerns about ethical issues in the business world. He then provided his famous CSR pyramid, which according to Visser (2005) has been the most enduring and often quoted in CSR literature.

Finding a single, widely accepted definition of CSR, however, is still a difficult problem. (Rahim and Alam 2014, Amaeshi, Adegbite and Rajwani 2016). The Companies Act 2013 has not defined CSR.

CSR, as defined by the World Business Council for Sustainable Development, is the business's commitment to act morally, promote economic growth, and improve the employees' lives, families, local communities, and society as a whole. CSR is not just about charity or donations, but about integrating environmental, economic, and social objectives into business operations and growth. The United Nations Industrial Development Organization emphasizes the Triple Bottom Line approach, which combines environmental, economic, and social imperatives while addressing shareholder and stakeholder expectations. The various definitions represent the complex and multifaceted nature of CSR and how it relates to the interests of stakeholders. CSR is now determined not solely by the amount of money a corporation donates to charity, but by its comprehensive engagement in endeavors that enhance the well-being of individuals.

### ***Corporate Governance (CG)***

CG refers to the comprehensive framework of procedures, standards, and regulations that regulate the direction and management of a corporation. CG is an essential structure that promotes the ethical conduct and efficient functioning of enterprises (Tricker, 2015). CG refers to the framework of rules, procedures, and regulations that regulate and direct businesses. Its purpose is to achieve a harmonious balance among the interests of all stakeholders involved in a firm, as

proposed by Freeman in 1984. These stakeholders include the community, government agencies, lenders, suppliers, consumers, shareholders, and senior management.

CG is defined by different organizations and researchers. A few of them are reviewed.

Cadbury Committee: The committee's definition of CG is "*the system by which companies are directed and controlled.*" This is the most succinct description of CG.

Organization for Economic Cooperation and Development (OECD): The OECD standards define CG as follows:

*"Corporate Governance is affected by the relationships among participants in the governance system. Controlling shareholders, which may be individuals, family holdings, bloc alliances, or other corporations, acting through a holding corporation or cross-shareholdings, can significantly influence corporate behavior. (...) Corporate Governance is only part of the larger economic context in which firms operate, which includes, for example, macroeconomic policies and the degree of competition in product and factor markets. The Corporate Governance framework also depends on the legal, regulatory, and institutional environment. In addition, factors such as business ethics and corporate awareness of the environmental and societal interests of the communities in which it operates can also have an impact on the reputation and long-term success of a corporation."*

SEBI defines "*Corporate governance as the acceptance by management of the inalienable right of shareholders as the true owners of the corporation and of their own role as trustees on behalf of the shareholders. It is about commitment to values, about ethical business conduct, and about making a distinction between personal and corporate funds in the management of a company.*" (SEBI).

CII defines "*Corporate governance deals with laws, procedures, practices and implicit rules that determine a company's ability to take managerial decisions vis-à-vis its claimants—in particular, its shareholders, creditors, customers, the State, and employees.*" (CII 1998)

The definitions provided above highlight how the "Cadbury Report" and "OECD Principles of CG" outline the key principles that organizations should adhere to in order to achieve effective governance. The SEBI Committee on CG Report highlights the importance of management's role in upholding principles that safeguard the interests of shareholders and extend to other stakeholders, as emphasized by CII.

### ***Theoretical underpinnings of Circular Economy***

The theoretical underpinnings of the CE include the following:

**1. Circular Competitiveness:** The main goal of CE is to enable businesses to create a competitive edge by adopting the latest innovations in the business space that can improve resource efficiencies, reduce waste, and even create new revenue streams. This theory stresses the possibility of the existence of a lasting competitive edge for companies if circular principles are employed in their business models and value chains.

**2. Economy-Ecology Reintegration:** The CE strives to re-place the economy within the ecosystemic system, acknowledging that economic activities need to occur within ecological limits. Organizations should evaluate the impacts of their activities on the environment and thus should make efforts towards preserving and rehabilitating natural resources.

**3. Environmental Paradigms:** CE supports the whole idea of environmental paradigms like Sustaincentrism, which stresses holism, linkage, fairness, self-reliance, and safety. These principles point out the interconnections between human, social, economic, and natural systems and the requirements to stay within the limits of the ecosystems.

**4. System Thinking:** The CE approach is to apply systems thinking, seeing the systems as interlinked and each of the system's impact on the other must be understood. This strategy resolves the multifaceted aspects of sustainability which in turn provides integrated solutions to the problems.

In brief, CEs are based on the recognition of the problem of an unsustainable economic system and are aimed at more ecological and theoretical underpinnings of a better economic system. It acknowledges that they must integrate economic, ecological, and social value creation, taking a circular approach to business that can lead to competitiveness.

The CE to its theoretical foundations lie in the interaction of multiple fields including ecological economics, environmental economics, and industrial ecology. (Antikainen, 2018). This economic model stipulates that, in material cycles, the duration of the lives of materials should be the main consideration, in line with care for resource and environmental elements (Tao-sheng, 2019).

To bring more clarity to the knowledge base and theoretical perspective of CE, R D Angelis (2022) suggested a theoretical framework that could further inform the examination of CBMs (Circular Business Models). The circular economy business models have now become a talking point in the industry with an emphasis on competitive advantage and any systemic business nature (Angelis 2021).

CE concept, as a system thinking practice, is a heavy-weight factor. Such an approach supports the writing of every entity into the larger system of which it is an element, and such a connection is taken into consideration at all hierarchic levels.

In addition, stakeholders change their perception of profit and profit making from being firm-centric to a system perspective. The holistic approach, which comprises not only the economic aspect but also the social as well as environmental domains, is also used here (Fehrer et al., 2022, Frishammar et al., 2019). Hence, the application of system theory becomes an ideal choice to build the theoretical basis for CBMs, as it is in complete harmony with the systems thinking which is held as the foundation for CE. Another point for CBMs is that the CBMs are like a systemic character of business.

***CE is an integral part of the CSR scheme which stands for corporate social responsibility.***

The theoretical basis of the CE is put forward by Turon (2017) and Morea et al. (2022) which asserts the instrumental nature of the CE in facilitating CSR through pro-sustainability practices and stakeholders-inclusive models. Antikainen (2018) focuses on those aspects that need to be done in the CE, especially the companies' role in developing new business models. Baldo (2020) signals the need for more exploration of the methods companies apply in including CE activities in their CSR practices. The findings of these studies are that the principle of CE with its focus on sustainability and stakeholder engagement seems to be the main characteristic of CSR in many industries.

CE is significant for CSR, in that it can help support sustainability inside companies (Morea et al., 2022). By implementing waste treatment, reduction, and recycling measures, firms not only increase their brand reputation and financial performance but also contribute to the realization of a more sustainable business model (Mazzucchelli et al., 2022). Besides that, the consumer's increased readiness to pay for the products of the companies that have CSR & CE approaches proves that there is market demand for sustainable practices (Kolling et al. 2023). Manufacturing products according to the CE framework based on life cycle assessment (LCA) can result in reduced emissions, energy consumption, water consumption, and waste generation, which will in turn lower production costs and thus, both the environment and the company's bottom line gets positively impacted (Mazzucchelli, 2022). Adding CE to CSR would make for a great result in achieving social, environmental, and economic development for businesses and stakeholders.

***Current landscape of CG practices with respect to environmental sustainability and CSR***

The architecture of current CG practices in association with ecological sustainability and CSR patterns an increasing awareness of the interconnectedness of CG, sustainable development, and global responsibility (Salvioni, 2015). This is further accentuated by the view that there should be a more integrated research approach to examining the impact of CG on environmental actions (Aguilera, 2021). The merging of CG and CSR has resulted in a sea change in the regulation of both fields with an orientation towards management practices that are friendly to stakeholders (Gill, 2007). Nevertheless, there are questions about a more detailed and systematic knowledge of the corporate governance of environmental sustainability; especially the part of the role of important actors and the world approach to sustainability (Aguilera, 2021). In addition, the issue becomes more tangled because the different standards and tools implemented across companies to measure, control, evaluate, and report their social, environmental, and sustainability impact also contribute to the problem (Tencati, 2015). The challenge is that there is no universal standard for non-financial reporting.

CG practices related to CSR encompass integrating CSR principles into governance structures, management processes, and organizational culture (Saiz-Alvarez, 2023). Effective communication of CSR initiatives through various channels is crucial for eliciting support and generosity from stakeholders (Alan Gutterman, 2023). The board of directors plays an important role in overseeing the environmental and social impacts of operations, aligning with emerging governance guidelines and stakeholder expectations (Vincent et. Al., 2022). Additionally, the size of the board and the existence of an audit committee significantly influence the CSR disclosure level, impacting the capital market and supporting sustainability efforts (Al Amosh, 2022). Understanding the convergence and divergence between CSR and corporate governance, along with ethical considerations and African perspectives, further enriches the understanding of the significance of ethical behavior and CSR adoption in businesses.

***Current regulations under the Companies Act(2013) and SEBI***

Though Companies Act 2013 and SEBI directly don't refer anything to CE certain principles are embedded into the act and regulations which promote sustainability and environment, social and governance (ESG).

- Certain categories of corporations are required by Section 135 of the Companies Act, 2013 to allocate a proportion of their earnings towards CSR initiatives. These activities may encompass endeavors pertaining to resource efficiency and environmental sustainability.
- Section 134(3)(m) of the Act mandates that companies include comprehensive information regarding energy conservation in their annual reports.
- Section 166(2) of the Act mandates that a company director must act in good faith to promote the company's objectives for the benefit of its members, employees, shareholders, community, and environmental protection.
- Section 92 of the Act mandates the filing of annual returns containing the above information.
- SEBI introduced the Business Responsibility and Sustainability Report (BRSR) in 2021, replacing the existing Business Responsibility Report. The comprehensive report requires listed companies to disclose their environmental, social, and governance performance, enhancing investor transparency.
- SEBI mandates disclosures on corporate governance and sustainability practices for listed entities, including forming a CSR committee, reporting on CSR activities, and supporting sustainable development.

- SEBI has issued guidelines for mutual funds to incorporate ESG factors into investment decisions, emphasizing sustainable practices.
- SEBI has set guidelines for the issuance and listing of Green Bonds, aiming to fund projects with climate benefits and positive environmental, supporting sustainable projects in renewable energy, waste management, and resource efficiency.

It is imperative for corporations operating in India, especially those that are publicly traded, to remain updated on these regulations and integrate them into their operational and governance strategies in order to correspond with SEBI's growing emphasis on sustainability. This alignment not only guarantees adherence but also bolsters the reputation of the company and improves relations with investors through the demonstration of a dedication to sustainable development.

### ***Strategies and mechanisms for embedding CE principles into CG structures***

Companies can employ the following strategies for integrating CE principles with CG :

**1. Incorporating sustainability goals:** In CG, one can apply sustainability objectives that comport with CE principles, such as minimizing discard, promoting resource efficiency, and reducing environmental pollution. This can be accomplished via the creation of well-defined policies and procedures that emphasize the choice of sustainable methods. Uncertainty is an issue that can be addressed with communication as a solution. Organizations must develop both concise and consistent messaging that provides the reasons behind and the process of the transformation.

**2. Board oversight:** CG structures will provide the board with monitoring and responsibility to implement CE recommendations. Such activities can be performed either by inviting sustainability experts to the board of directors or by creating a separate committee that is responsible only for CE-related activities. There is always a sunrise after a dark night and as individuals, we should be the drivers of change. Identify within your organization a champion of change and re-empower them for change.

**3. Stakeholder engagement:** CE principles focus on the necessity to reach out to the stakeholders at every step of your production value chain. CG must give a chance to all the stakeholders namely customers, employees, suppliers, and local communities to take part in the decision-making procedure and share their views on the development and implementation of CSR.

**4. Reporting and transparency:** CE is a vital aspect of CG and thus, transparent reporting of sustainability performance should be done. This reporting can include key performance indicators related to CE for instance resource consumption, waste reduction, and circular product design. Tracking and duly declaring the progress made towards circular goals is one of the best ways through which accountability is ensured and an initiative for continuous improvement is provided.

**5. Incentives and rewards:** CG can introduce inducements and praise for the successful attainment of CE. The incentives can be enhanced by integrating CE performance metrics into executive compensation packages or by offering extra recognition and rewards for employees who participate in CE projects.

**6. Collaboration and partnerships:** Sustainable development principles are typically dependent on working together and with various industries and sectors. CG can motivate companies to develop strategic partnerships, exchange experience, and contribute to CE research and development.

It should be kept in mind that the way the CE would be integrated with CG will differ based on the context and sector that would be involved. Firms may have to adapt their approaches to fit with the particular requirements of the company as well as the business model being followed.

The conjunction of CE principles with CG is a multifaceted and very important. The literature review provided a solid basis for the integration. To attain this, companies can give emphasis on such aspects as the Board size, the number of male and female members, and the existence of the CSR committee as these factors improve the CE disclosure level in the integrated reports (Esposito et. Al., 2023). Moving from the CSM to the CE model needs a systemic and integrated method which considers the economic, social, and environmental aspects of CG sustainability strategies (Gennari, et. Al., 2020). The CE construct is in line with the most essential elements of current CG structures, mainly focusing on income and risk numbers. It also considers material supply risks and urges the companies to be more sustainable (Goddin, 2020). A circular notion of CG also entails ethical thinking, advancing principles of honesty, awareness, and accountability to be used in driving more sustainable and ethical corporate practices (Goede, 2018). Establishing a circular agenda in the business sector requires technical, organizational, and supply chain transformations that will be aimed at waste management, resource efficiency, and sustainable procurement with the objective of making a transition to the CE (Selleiers, 2019).

Neiro (2018) and Stewart et. al(2018) underline that the performance of organizations is also required to be aligned with the CE principles through life cycle sustainability assessment as well as end-of-life management. Zlotnik (2021) has underlined the need for such circular economy models to be integrated into corporate strategies, suggesting the cases of Italian companies which have been able to do so within their frame. Anbumozhi (2016) highlights the CE as a mechanism through which the government's role in policy-making is to facilitate the adoption of such practices by private corporations.

These studies demonstrate the pivotal role of a comprehensive strategy for making CE principles applicable to the practices of CG. Such strategy should be based on sustainability assessment, development of strategic plan, and policy support.

### 3. Methodology

The study utilizes qualitative research methods with case studies. This research paper's objectives may be reached by gathering secondary data by examining a number of sources such as journals, articles, and reports submitted by companies to statutory authorities.

### 4. Discussion

#### *Significance of integrating*

The importance of embedding CE concepts into CG cannot be overstated in the context of CSR. The crux of this research lies in the fact that it can be a catalyst to overcome the theoretical ideals of the circular economy and make it a practical reality that companies can adopt. Being informative on integration ways, this study provides practical policies for businesses that are designed for the improvement of CSR through sustainability. On the other hand, the research complements the theoretical framework of sustainable development, corporate governance, and CSR, presenting a detailed explanation of the interrelationships between these essential aspects.

The source of the strategy that CG employed in the CE is the outcome of different types of factors. This article by Neiro (2018) and another study by Dragomir (2022) both gave examples of the monetary savings and carbon emissions that could be reduced by the adoption of the CE principles. The article by Velenturf (2019), argues that business environment must be viewed encompassing economic, social and environmental dimensions of CE. In this same context, Zlotnik (2021) explains that the sustainable models of CE are perfectly designed to be incorporated into the strategic plan of organizations to generate benefits in the areas of environmental, economic and social. These studies together show that the soundness of incorporating CE ideas into CG is threefold: there will be greater benefits, such as increased sustainability, lower emissions of greenhouse gases, and enhanced business performance.

#### *Obstacles and difficulties of the process of the transition to CE.*

##### *Cultural and Mindset Shifts:*

- Overcoming resistance to change: Changing the organizational culture and the mindset of the organization is just as important.
- Educating stakeholders: It is essential for all stakeholders comprising employees, customers, and suppliers to know and understand the advantages of CE values.

##### *Operational and Technological Barriers:*

- Redesigning products and processes: Reshaping current processes and products to follow the CE guidelines can be challenging.
- Lack of technology and infrastructure: The needed technology for recycling, renewing, or re-manufacturing may not yet have been developed or it may be expensive.

##### *Supply Chain Complexity:*

- Supplier Engagement: It can be difficult to influence suppliers to establish sustainable and circular strategies.
- Traceability and Transparency: Supply chain traceability and transparency across all stages of the supply chain should be ensured.

##### *Financial Constraints:*

- Initial Investment Costs: The CE model transition might absorb a lot of money in the beginning.
- Economic Viability: The profitability of CE practices might not be immediately clear for companies and they will have to provide evidence of the short-term economic viability to shareholders.

##### *Regulatory and Policy Hurdles:*

- Lack of Supportive Regulation: Companies are usually employed in the regulations system which is tailored for the processes in the linear business models.
- Navigating International Standards: CE regulations and standards vary from one country to another both in terms of content and context, making the process of conforming to them a difficult one.

##### *Market and Consumer Expectations:*

- Changing Consumer Behavior: Considering the fact that changing consumer behavior and making them understand the importance of sustainable, circular products is still a challenge for people.
- Market Demand: Creating a market for recycled/ refurbished goods, however, can be real hard work.

##### *Measurement and Reporting:*

- Developing Metrics: Creating multi-faceted metrics to assess the effect of CSR activities on sustainability, financial efficiency, and social responsibility.
- Standardized Reporting Standards: This makes it difficult to establish a standard of ethical behavior and to compare the operations of different companies.

### ***Benefits of integrating CE principles into CG***

In terms of CG, the application of CE principles could produce several different advantages. This can act as a means to disconnect companies' growth from resource consumption, help lower material supply risks, and reinforce both the company's revenue and risk factors (Goddin, 2020). This transition can also instigate economic efficiency, competitiveness, and creativity, and create a bridge between economic growth and resource stewardship (Anbumozhi, 2016). In addition, it can prevent profitability and competitiveness decline, decrease the amount of trash, and even generate further economic benefits (Zlotnik, 2021). It implements operational green management, decreases the usage of resources, has environmental effects, leads to cost savings, and creates jobs (Aluchna, 2019).

Moreover, combining CE and CG principles into the framework not only brings advantages to a number of key actors but also has a positive effect on society as a whole.

• **Customers and Consumers:** Overcoming the customer's environmental concerns while saving costs and boosting product sustainability in the circular business model.

• **Employees:** Worker's joy and engagement as their commitment to sustainability grows.

Exposure to skill development in new sustainable practices and technologies that are increasingly being incorporated.

• **Suppliers and Business Partners:** Long-run business partnerships and innovative opportunities.

• **Investors and Shareholders:** Risk prevention and creating long-term value.

• **Local Communities and Society:** Preservation of the environment, job generation, and economic development.

• **Governments and Regulators:** In sustaining this vision, we will ensure a strong alignment with the policy goals, continued innovation, and leadership.

• **Environment:** Resource conservation and biodiversity protection through the efficient use of resources and biodiversity protection.

• **Global Community:** Climate change solutions and sustainable development.

Overall, this leads to a win-win situation as these CEs are directly related to the success of the company and have an indirect positive impact on a wide range of other stakeholders. It is the embodiment of the transition from unsustainable, weak, and unjust economic platforms to strong and sustainable ones.

### **5. Case studies**

A study of the BRSR reports submitted for the year 2022-23 by three different companies in the IT industry, three from the Automobile industry and three from the Oil and Gas industry are summarized below. A detailed study of those reports shows clearly the way these companies have included sustainability issues in corporate governance. However, most of them don't use the word "circular economy" in their reporting. By integrating they have a very clear path towards better CSR.

<b>IT Sector Companies</b>		
<b>Infosys:</b> <ul style="list-style-type: none"> <li>Comprehensive sustainability policy focusing on environmental, social, and governance (ESG) goals.</li> <li>Became carbon neutral in 2020 itself.</li> <li>Strives in renewable energy use and energy-efficient infrastructure.</li> <li>Focuses on optimizing resource use and managing waste.</li> </ul>	<b>Wipro:</b> <ul style="list-style-type: none"> <li>Sustainability practices deeply integrated into operations and management philosophies.</li> <li>Set ambitious targets for water stewardship, waste management, and biodiversity.</li> <li>Engages in community engagement and social responsibility programs.</li> <li>Reduces material use, enhances recycling, and manages electronic waste effectively.</li> </ul>	<b>Tata Consultancy Services:</b> <ul style="list-style-type: none"> <li>Strong commitment to sustainability, focusing on environmental sustainability, social responsibility, and corporate governance.</li> <li>Engages in community development programs and has robust governance practices.</li> <li>Focuses on sustainable IT solutions and promotes digital transformation.</li> </ul>
<b>Corporate Governance:</b> <ul style="list-style-type: none"> <li>Incorporated sustainability into corporate governance frameworks through dedicated committees and leadership roles.</li> <li>Actively report sustainability and CSR activities, aligning with global standards</li> </ul>		
<b>Automotive sector companies</b>		
<b>Mahindra &amp; Mahindra's Sustainability Initiatives:</b> <ul style="list-style-type: none"> <li>Committed to achieving carbon neutrality, water positivity, and zero waste to landfill.</li> <li>Promotes use of renewable energy and increased energy efficiency.</li> <li>Initiated programs to enhance resource efficiency, including recycling materials and vehicle recycling.</li> <li>Actively involved in developing and promoting electric vehicles.</li> </ul>	<b>Tata Motors' Sustainability Initiatives:</b> <ul style="list-style-type: none"> <li>Focuses on reducing the environmental impact of products &amp; operations.</li> <li>Committed to community and social responsibility, actively participating in community development initiatives.</li> <li>Integrates circular economy principles into operations, focusing on waste minimization and recycling.</li> <li>Pioneered in the Indian market for electric vehicles.</li> </ul>	<b>Ashok Leyland's Sustainability Initiatives:</b> <ul style="list-style-type: none"> <li>Established a comprehensive CSR and sustainability agenda focusing on environmental stewardship, social responsibility, and economic development.</li> <li>Focuses on reducing emissions, increasing fuel efficiency, and ensuring environmentally friendly operations.</li> <li>Incorporates circular economy practices through initiatives to improve</li> </ul>



		resource efficiency and waste management. • Explores sustainable mobility solutions, including electric and hybrid vehicles.
<b>Corporate Governance:</b> <ul style="list-style-type: none"> <li>All three companies have integrated sustainability goals into their governance structures.</li> <li>They have dedicated committees focused on sustainability and are transparent in their reporting.</li> </ul>		
<b>Energy Sector companies</b>		
<b>Reliance Industries:</b> <ul style="list-style-type: none"> <li>Aims to reduce its environmental footprint through investments in renewable energy and carbon emission reduction technologies.</li> <li>Implements initiatives for water conservation and improved efficiency.</li> <li>Enhances recycling capabilities, particularly through its PET recycling plant and "Recycle4Life" campaign.</li> <li>Develop innovative materials like R Elan, a fabric made from recycled PET bottles.</li> </ul>	<b>Bharat Petroleum Corporation Limited (BPCL):</b> <ul style="list-style-type: none"> <li>Focuses on improving energy efficiency across its refineries and operations.</li> <li>Engages in community development projects focusing on education, water conservation, and healthcare.</li> <li>Minimizes waste through waste management and recycling initiatives.</li> <li>Ensures sustainable use of resources, including water and raw materials.</li> </ul>	<b>Oil and Natural Gas Corporation (ONGC):</b> <ul style="list-style-type: none"> <li>Committed to environmental stewardship and energy management.</li> <li>Invests in energy-saving technologies and promotes renewable energy use.</li> <li>Enhances resource efficiency, particularly in water management and energy use.</li> <li>Engages in eco-friendly practices, such as using green drilling fluids.</li> </ul>
<b>Corporate Governance:</b> <ul style="list-style-type: none"> <li>Actively discloses sustainability efforts and compliance with environmental regulations.</li> <li>Establishes board-level committees and policies to integrate CSR and sustainability into corporate governance structures.</li> </ul>		

Source: Author's compilation from the sustainability reports and BRSR reports of the companies.

## 6. Conclusion

The integration of CE principles into CG signifies a paradigm shift in the pursuit of a sustainable future; it strengthens not only CSR but also the fundamental pillars of economic resilience and environmental stewardship. This article has emphasized the critical significance of incorporating CE principles into the CG frameworks of organizations where sustainability will be the core component of business operations.

Through the adoption of CE strategies—which include reducing, reusing, recycling, and the restoration of natural systems—organizations can establish a more sustainable operational framework that satisfies the demands of stakeholders and global sustainability goals. The evidence that has been provided throughout this discussion demonstrates how this type of integration not only tackles environmental concerns but also generates economic along social advantages, giving businesses that implement these practices proactively a competitive edge.

Even though this change will be associated with near-impossible difficulties, they can be tackled by working together and therefore making cultural and operational transformations within organizational systems. It is clear that transformation at a systemic level is needed, with regulated policies for growth and innovation and an unwavering commitment to learning. The role of leadership becomes significant in the promotion of such transformations as they facilitate the integration of CE principles into strategic visions and day-to-day activities of organizations.

Adding to that, the application of these principles in a number of industries, as they are herein illustrated, is an example that others can follow. These facts thus show clearly that these modifications are viable and most importantly they bring tangible benefits including confidence from stakeholders, adaptability, and conformity to regulatory and societal expectations.

To conclude, the integration of CE principles into business governance systems represents the way out for companies to head the transition towards a more sustainable and fair world economy- the companies' way towards the top of the list, as opposed to merely the requirement. Adopting this strategy will, on the other hand, ensure an all-inclusive improvement in CSR performance, hence creating a sustainable internal culture that pervades all working divisions in an organization. The conclusion of the study reveals that the purpose of companies that are committed to the long-term sustainability mission is to integrate CE into their corporate governance structures to be able to contribute to a more sustainable and prosperous future for all.

## 7. Limitation and Future Research

This research has made major progress in the area of the connection between CE principles and CG for the purpose of moving ahead on the CSR level. On the contrary, this research, as any piece of scientific work, has its drawbacks. The main methodology is qualitative and based on the extensive use of case studies. It does not provide descriptive quantitative data and standardized metrics for any evaluation.

Future studies could include a broader range of geographic locations with diverse economic, cultural, and regulatory backgrounds to enhance the universality and applicability of the findings. Exploring the role of emerging technologies like blockchain and AI, in facilitating and tracking the implementation of CE principles could provide new tools and methodologies for companies aiming to enhance their CSR through better CG.

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