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Under the Theme:

Evaluation of the effectiveness and impacts of CSR programs implemented by SONEGGAZ Company in the context of sustainable development: An employee perspective.

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Dedication:

*To my beloved parents;
whose love, support, and unwavering encouragement have been the foundation
of my success.
Your sacrifices, prayers, and belief in me have made this journey possible.*

*To my dear brother Djawed,
whose kindness and presence gave me strength during the most difficult
moments.
Your patience and encouragement meant the world to me.*

*This work is also dedicated to all those who believed in me,
with love and gratitude.*

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Abstract:

This research investigates the effectiveness of Corporate Social Responsibility (CSR) programs implemented by SONELGAZ and their alignment with Sustainable Development Goals (SDGs). Adopting a mixed-methods approach, the study combines qualitative analysis of SONELGAZ's strategic documents with quantitative data from a structured employee survey. The findings highlight a moderate level of CSR awareness and engagement among employees, as well as varying perceptions regarding the effectiveness and societal impact of CSR initiatives. Thematic document analysis reveals strategic alignment with national development priorities and global sustainability frameworks. The study confirms the relevance of employee feedback in enhancing CSR strategies and provides recommendations for strengthening CSR communication, stakeholder engagement, and program monitoring. The results offer valuable insights for public enterprises aiming to embed sustainability in governance and organizational culture.

Keywords: *Corporate Social Responsibility, Sustainable Development Goals, SONELGAZ, Employee Perception, Mixed Methods, CSR Effectiveness*

Résumé :

Cette recherche évalue l'efficacité des programmes de Responsabilité Sociétale des Entreprises (RSE) mis en œuvre par SONELGAZ et leur alignement avec les Objectifs de Développement Durable (ODD). En adoptant une approche méthodologique mixte, l'étude combine une analyse qualitative des documents internes de SONELGAZ avec une enquête quantitative menée auprès de ses employés. Les résultats montrent un niveau modéré de sensibilisation et d'engagement à la RSE, ainsi que des perceptions variées quant à son efficacité et son impact sociétal. L'analyse documentaire révèle une cohérence stratégique avec les priorités nationales et les cadres internationaux du développement durable. L'étude met en évidence l'importance des retours des employés pour améliorer les pratiques de RSE et propose des recommandations pour renforcer la communication, l'implication des parties prenantes et les dispositifs d'évaluation.

Mots-clés : *Responsabilité Sociétale des Entreprises, Objectifs de Développement Durable, SONELGAZ, Perception des employés, Méthode mixte, Efficacité de la RSE*

الملخص:

تتناول هذه الدراسة فعالية برامج المسؤولية الاجتماعية للمؤسسات (CSR) التي تنفذها شركة سونلغاز ومدى توافقها مع أهداف التنمية المستدامة (SDGs). وقد اعتمدت الدراسة على منهجية مختلطة، جمعت بين التحليل النوعي لوثائق الشركة وتحليل كمي لنتائج استبيان وُزِعَ على موظفي سونلغاز. أظهرت النتائج أن مستوى الوعي والمشاركة في برامج المسؤولية الاجتماعية متوسط، كما تباينت تصورات الموظفين حول مدى فاعلية وتأثير هذه المبادرات. كشف تحليل الوثائق عن انسجام استراتيجي بين برامج الشركة والأطر الوطنية والعالمية للتنمية المستدامة. تؤكد الدراسة أهمية دمج آراء الموظفين لتطوير ممارسات المسؤولية الاجتماعية، وتقترح توصيات لتعزيز الاتصال المؤسسي وتوسيع إشراك أصحاب المصلحة وتحسين آليات التقييم والمتابعة.

الكلمات المفتاحية: المسؤولية الاجتماعية للمؤسسات، أهداف التنمية المستدامة، سونلغاز، تصور الموظفين، منهجية مختلطة، فعالية المسؤولية الاجتماعية للمؤسسات.

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List of Abbreviations :

Abbreviation	Full Term
CSR	Corporate Social Responsibility
SDGs	Sustainable Development Goals
ESG	Environmental, Social, and Governance
FOSC	Fonds des Œuvres Sociales et Culturelles (SONELGAZ Social Fund)
SPSS	Statistical Package for the Social Sciences
ISO	International Organization for Standardization
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
MRV	Measurement, Reporting and Verification
HR	Human Resources
GE	General Electric
SROI	Social Return on Investment

Glossary

Term	Definition
Corporate Social Responsibility (CSR)	A strategic approach whereby companies integrate social, environmental, and ethical considerations into their operations and stakeholder interactions.
Sustainable Development (SD)	Development that meets present needs without compromising the ability of future generations to meet their own needs. It rests on three pillars: economic, social, and environmental.
Sustainable Development Goals (SDGs)	A set of 17 global goals established by the United Nations to address critical global challenges and promote sustainable prosperity by 2030.
Environmental, Social, and Governance (ESG)	A framework used to evaluate a company's performance in non-financial domains, including environmental stewardship, social responsibility, and corporate governance.
FOSC (Fonds des Œuvres Sociales et Culturelles)	SONELGAZ's internal social fund, dedicated to employee welfare and cultural, health, and recreational services.
Stakeholder	Any individual or group affected by or able to influence an organization's activities. Examples include employees, communities, government, customers, and NGOs.
Cronbach's Alpha	A statistical measure used to assess the internal consistency (reliability) of a set of survey or test items.
SPSS	A software package used for statistical analysis in social science research.
ISO 9001:2015	An international standard for quality management systems that ensures an organization consistently meets customer and regulatory requirements.
ISO 50001	A standard for energy management systems that supports organizations in improving energy performance and efficiency.
MRV (Measurement, Reporting, Verification)	A framework used to track greenhouse gas emissions and evaluate environmental commitments under climate agreements.
Social Return on Investment (SROI)	An evaluation method that quantifies the social, environmental, and economic value created by a project or initiative.
Mixed-Methods Research	A research design that integrates both qualitative and quantitative methods to provide a comprehensive analysis of a topic.

General Introduction:

In an era defined by accelerating environmental challenges, social inequalities, and heightened expectations for corporate transparency, Corporate Social Responsibility (CSR) has become a strategic imperative for organizations globally. Businesses are increasingly expected to integrate sustainability considerations into their core operations and align with the Sustainable Development Goals (SDGs), moving beyond short-term profit maximization toward long-term value creation for all stakeholders. In this evolving context, the energy sector holds particular significance, given its centrality to national development, climate transition, and social well-being.

This thesis investigates the effectiveness of CSR initiatives at SONELGAZ, Algeria's state-owned electricity and gas provider, through the lens of sustainable development. It focuses specifically on how CSR strategies are implemented institutionally and perceived by employees, who play a vital role in delivering and shaping CSR programs. SONELGAZ was selected for its prominent national role in rural electrification, energy security, and renewable energy transition—making it a critical actor in Algeria's sustainable development agenda. The choice was further justified by the limited availability of dedicated CSR or sustainability reports from SONELGAZ, creating a knowledge gap this study seeks to address.

Research Problematic

Despite public claims of sustainability leadership, SONELGAZ's CSR activities have not been systematically evaluated through the lens of internal stakeholders. While its public discourse aligns with national and global sustainability agendas, it remains unclear whether employees who play a critical role in program execution are adequately informed, involved, and convinced of CSR's strategic relevance. This research addresses the gap between corporate CSR commitments and internal perception, aiming to determine how effectively CSR is implemented in practice and whether it contributes meaningfully to sustainable development.

Research Questions:

Main Research Question:

- **To what extent are SONELGAZ's CSR programs effective in promoting sustainable development, from the perspective of its employees?**

Sub-questions:

1. How aware are employees of SONELGAZ's CSR initiatives?
2. To what extent are employees engaged in CSR-related activities?
3. How do employees perceive the effectiveness of CSR initiatives in achieving sustainable development?
4. What suggestions do employees have to improve CSR strategies?

Research Objectives

- To assess employee awareness of CSR programs

- To evaluate employee engagement in CSR initiatives
- To examine employee perceptions of CSR effectiveness
- To gather employee-driven suggestions for strategic improvement

Research Hypotheses :

- H1: Higher employee awareness of CSR is positively associated with perceived effectiveness of CSR programs.
- H2: Greater employee engagement in CSR is positively related to their perception of SONEGGAZ's commitment to sustainable development.
- H3: Employees who perceive CSR initiatives as effective are more likely to express satisfaction with the company's social and environmental performance.
- H4 (Exploratory): Employee suggestions provide valuable insights for enhancing the strategic alignment of CSR practices with sustainable development goals.

Theoretical Anchoring

To analyze CSR from both strategic and operational dimensions, the study draws on several interlinked theories and frameworks:

Framework	Description	Relevance
<i>Carroll's CSR Pyramid (1979)</i>	Hierarchical model of CSR: economic, legal, ethical, and discretionary responsibilities	Used to assess SONEGGAZ's layered approach to CSR practices
<i>Stakeholder Theory (Freeman, 1984)</i>	Emphasizes balancing stakeholder interests	Informs analysis of internal perceptions and institutional dialogue
<i>Triple Bottom Line (Elkington, 1997)</i>	Framework evaluating corporate performance based on People, Planet, and Profit	Used to assess environmental, social, and economic balance in CSR programs
<i>ISO 26000</i>	Voluntary standard for social responsibility	Guides alignment of SONEGGAZ's CSR efforts with global expectations
<i>ESG Metrics</i>	Focus on Environmental, Social, and Governance factors	Referenced in the strategic analysis of institutional governance practices

Methodological Overview:

Given the multidimensional nature of CSR, the study adopts a mixed-methods research design. Quantitatively, a structured questionnaire was distributed to 30 employees from the SONEGGAZ Distribution Directorate of Tiaret. The survey measured CSR awareness, employee engagement, perceived program effectiveness, and included an open-ended question for suggestions. SPSS was used for statistical processing, including Pearson correlations and Cronbach's Alpha for internal reliability.

Qualitatively, document analysis was conducted using SONEGGAZ's 2023 Activity Report, the April 2024 Collective Agreement, the ESST Policy, the Governance Charter, and selected press articles. Due to the absence of a formal CSR or sustainability report, these documents

served as substitutes for analyzing institutional commitments and triangulating employee insights.

Research assumptions:

The following assumptions underpin the research design:

- The survey participants responded honestly and provided sincere reflections of their experiences.
- SONELGAZ's published reports accurately reflect its CSR strategies and actual implementation.
- The mixed-methods approach is suitable for capturing both institutional intentions and employee perceptions.
- Employees understand the concept of CSR and sustainable development as framed in the survey questions.

Thesis Structure

This thesis is organized into two main parts and three core chapters:

Part 1: Theoretical Framework

Chapter 1: Corporate Social Responsibility and Its Role in Sustainable Development

Section01: Conceptual Foundations of Corporate Social Responsibility (CSR)

- Defining CSR: Evolution and Key Theoretical Perspectives
- CSR Models and Frameworks: Shareholder vs. Stakeholder Approaches
- The Strategic Role of CSR in Organizational Management

Section02: Sustainable Development: Principles and Strategic Imperatives

- The Concept of Sustainable Development: Historical Evolution and Definitions
- The Three Pillars of Sustainability: Economic, Social, and Environmental Dimensions
- International Frameworks and Policies Supporting Sustainable Development

Section03: The Interconnection between CSR and Sustainable Development

- CSR as a Driver of Sustainable Development Goals (SDGs)
- Integrating CSR into Corporate Sustainability Strategies

Chapter 2: Evaluating the Effectiveness and Impact of CSR Initiatives in the Context of Sustainable Development

Section01: Assessing the Effectiveness of CSR Programs

- Defining and Measuring CSR Performance: Key Indicators and Metrics

- Evaluating the Social, Environmental, and Economic Dimensions of CSR Initiatives
- Challenges and Limitations in Measuring CSR Effectiveness

Section02: Methodological Approaches to CSR Evaluation

- Quantitative and Qualitative Assessment Techniques
- Evaluation Frameworks: Social Return on Investment (SROI), ESG Metrics, and Impact Assessment Models
- The Role of Stakeholder Perception and Engagement in CSR Evaluation

Section03: Impact Analysis: CSR's Contribution to Sustainable Development

- The Influence of CSR on Economic Growth and Corporate Competitiveness
- CSR's Role in Enhancing Social Well-being and Environmental Sustainability

Part 2: Empirical Study

Chapter 3: Empirical Investigation of SONEGAS's CSR Programs and Their Impact on Sustainable Development

Section01: Corporate Social Responsibility at SONEGAS: Strategic Orientation and Implementation

- Presentation of the company SONEGAS
- Overview of SONEGAS: Corporate Mission, Vision, and Sustainability Commitments
- Analysis of SONEGAS's CSR Policies and Key Programs
- Integration of CSR into Corporate Governance and Strategic Decision-Making

Section02: Research Methodology and Data Collection Framework

- Research Design: Methodological Approach and Justification
- Data Collection Techniques: Surveys, Interviews, Case Study Analysis, and Document Review
- Sample Selection, Data Processing, and Analytical Framework

Section03: Empirical Findings and Strategic Insights

- Evaluation of the Effectiveness of SONEGAS's CSR Programs
- CSR's Contribution to Sustainable Development Goals within the Energy Sector
- Challenges, Limitations, and Strategic Recommendations for Enhancing CSR Performance

By linking theory and practice, this thesis delivers an in-depth understanding of SONEGAS's CSR initiatives and their alignment with sustainability imperatives. The results provide actionable insights for enhancing CSR governance within SONEGAS and offer broader relevance to public utilities in emerging economies.

CHAPTER ONE:

Corporate social responsibility and its
role in sustainable development.

Introduction of chapter one:

In recent years, the world has faced major challenges such as climate change, social inequality, and economic instability. These issues have led to growing expectations for companies to take more responsibility not just for making profits, but also for contributing to the well-being of society and the protection of the environment. This is where the concept of Corporate Social Responsibility (CSR) comes into play. CSR encourages organizations to go beyond their legal obligations and to act in ways that are ethical, transparent, and beneficial to all stakeholders.

At the same time, sustainable development has become a global priority. It focuses on meeting the needs of the present without compromising the ability of future generations to meet their own. Achieving sustainability requires a balanced approach that considers economic growth, social progress, and environmental care. In this context, CSR is seen as a valuable tool that helps organizations contribute meaningfully to sustainability goals while also improving their own performance and reputation.

This chapter sets the stage for the study by exploring the key concepts and theories related to CSR and sustainable development. It begins by defining CSR, explaining its origins, and discussing different models that guide how companies approach their social responsibilities. Then, it introduces the main principles of sustainable development and the international efforts that support it. Finally, the chapter looks at how CSR and sustainability are connected; showing how responsible business practices can help achieve long-term positive impacts for both organizations and society.

By understanding these concepts, we can better evaluate how companies like SONELGAZ implement CSR in a way that supports sustainable development goals, and how these efforts can be improved for greater effectiveness.

Section 01: Conceptual Foundations of Corporate Social Responsibility (CSR)

Introduction:

Before examining how companies apply Corporate Social Responsibility (CSR) in practice, it is important to understand what the concept truly means, where it comes from, and how it has evolved over time. CSR is not a one-size-fits-all approach; it has been shaped by various theories, models, and perspectives that reflect different expectations of what businesses owe to society. Some views focus mainly on maximizing shareholder value, while others emphasize the broader responsibility companies have toward their employees, communities, and the environment.

This section explores the key ideas that form the foundation of CSR. It begins by tracing the evolution of the concept and highlighting the main theoretical approaches that have guided its development. Next, it compares different CSR models, particularly the shareholder and stakeholder approaches, which continue to influence how companies define their responsibilities. Finally, the section examines how CSR has become a strategic tool in organizational management, helping businesses align their social and environmental efforts with long-term goals.

By understanding these foundations, we can gain clearer insight into how CSR functions within organizations and how it can contribute to meaningful and sustainable change.

1. Defining CSR: Evolution and Key Theoretical Perspectives:

Corporate Social Responsibility (CSR) has emerged as a fundamental concept in both academic discourse and corporate practice. It refers broadly to the responsibility of businesses to contribute positively to societal welfare while operating within ethical and legal boundaries. The conceptual development of CSR has undergone significant evolution since its early formulations, reflecting changes in societal values, economic conditions, environmental concerns, and the global business environment.

The origins of CSR can be traced back to the pioneering work of Howard R. Bowen, often regarded as the father of modern CSR. In his seminal publication *Social Responsibilities of the Businessman* (1953), Bowen articulated the idea that business executives should consider the social consequences of their decisions and actions. He posited that corporate actions should align with the broader objectives and values of society, suggesting a moral obligation on the part of businesses to act responsibly. This early perspective laid the foundation for subsequent debates and developments in CSR theory and practice, particularly during the post-war economic expansion when corporations began to play an increasingly central role in society. (Bowen, 1953)

Over the decades, the conceptualization of CSR evolved in response to growing public expectations, environmental degradation, and the globalization of markets. Archie B. Carroll, who proposed a multi-layered model that encapsulates the complexity of CSR in 1991, made one of the most influential contributions to this evolution. Known as Carroll's Pyramid of CSR, this framework delineates four core responsibilities that companies are expected to fulfill: economic, legal, ethical, and philanthropic (Carroll, 1991). Economic responsibility

being profitable forms the foundation of the pyramid, underscoring the importance of financial viability.

Above this base, legal responsibilities require firms to adhere to laws and regulations. Ethical responsibilities compel businesses to act morally and fairly, beyond mere legal compliance. At the top, philanthropic responsibilities refer to voluntary contributions that promote human welfare, such as community engagement and charitable giving. Carroll's model remains a foundational framework in understanding CSR as a multidimensional and integrated responsibility. (Carroll, 1999)

The development of CSR has not been without controversy, particularly concerning its scope and purpose. A notable critic of expansive CSR interpretations was Milton Friedman, whose 1970 article in *The New York Times Magazine* famously declared, "The social responsibility of business is to increase its profits." Representing the classical or shareholder theory, Friedman argued that corporate executives are agents of the owners of the business and must focus solely on maximizing shareholder wealth, provided they operate within legal and ethical norms (Friedman, 1970). According to this perspective, CSR initiatives that do not directly contribute to profit generation are viewed as misappropriations of corporate resources.

In contrast to the shareholder-centric view, the stakeholder theory advanced by R. Edward Freeman in 1984 significantly broadened the understanding of corporate responsibility. Freeman's *Strategic Management: A Stakeholder Approach* proposed that corporations must consider the interests of all stakeholders defined as any group or individual who can affect or is affected by the achievement of the organization's objectives (Freeman, 1984). These include employees, customers, suppliers, local communities, and even the natural environment. Stakeholder theory has since gained considerable traction, particularly as businesses face increasing pressure to address diverse social, environmental, and ethical concerns in their operations.

The shift from a purely financial orientation to a more holistic view of corporate performance is further exemplified by the emergence of the Triple Bottom Line (TBL) framework, introduced by John Elkington in 1997. This approach suggests that businesses should be assessed not only by their economic performance but also by their social and environmental impacts often summarized as "people, planet, and profit" (Elkington, 1997). The TBL framework has become a cornerstone in contemporary CSR and sustainability discussions, encouraging companies to integrate sustainable development goals into their strategic planning and reporting systems. It has also influenced the rise of Environmental, Social, and Governance (ESG) criteria used by investors to evaluate corporate behavior and performance.

In addition to theoretical perspectives, institutional frameworks and normative guidelines have played a pivotal role in shaping modern CSR practices. Notable among these is the United Nations Global Compact, launched in 2000, which urges businesses worldwide to adopt sustainable and socially responsible policies based on ten universally accepted principles¹. Similarly, the ISO 26000 standard, issued in 2010, provides guidance on how organizations can operate in a socially responsible manner². Other prominent frameworks

¹ United Nations Global Compact (2000). *The Ten Principles of the UN Global Compact*. <https://unglobalcompact.org/what-is-gc/mission/principles> consulted: April 26, 2025 at 05:00 pm

² International Organization for Standardization (ISO). (2010). *ISO 26000: Guidance on Social Responsibility*. <https://www.iso.org/obp/ui/#iso:std:iso:26000:ed-1:v1:en> at 05:15 pm

include the Global Reporting Initiative (GRI)³, which offers comprehensive standards for sustainability reporting, and the United Nations' Sustainable Development Goals (SDGs)⁴, which serve as a blueprint for aligning business practices with global development objectives.

Furthermore, recent approaches such as Creating Shared Value (CSV), introduced by Michael Porter and Mark Kramer in 2011, propose that businesses can simultaneously enhance competitiveness and address societal challenges. CSV emphasizes innovation and strategic alignment, suggesting that companies can create economic value by developing products, services, and business models that create societal value (Porter, M. E., & Kramer, M. R., 2011). This perspective shifts the narrative from CSR as a cost center to CSR as a driver of growth and differentiation.

In sum, the conceptual landscape of CSR has evolved from a narrow focus on philanthropy and compliance to a strategic and integrated approach that addresses a wide array of social, environmental, and economic issues. Theoretical frameworks such as Carroll's Pyramid, stakeholder theory, and the Triple Bottom Line have deepened our understanding of CSR, while institutional standards have provided practical tools for implementation and accountability. As global challenges such as climate change, inequality, and digital transformation intensify, CSR will continue to be a critical area of focus for scholars, policymakers, and business leaders alike.

2. CSR Models and Frameworks:

2.1. Understanding CSR: A Strategic and Ethical Imperative

Corporate Social Responsibility (CSR) has evolved from a peripheral activity to a strategic imperative for organizations across the globe. Initially perceived as charitable or philanthropic acts, CSR today encompasses a wide array of responsibilities that organizations are expected to fulfill (Moon, 2007). These include legal compliance, environmental stewardship, ethical governance, and meaningful engagement with stakeholders. This evolution reflects a shift in societal expectations, where businesses are no longer assessed solely on financial performance but also on their social and environmental footprints.

CSR frameworks offer a structured approach to integrating ethical, social, and ecological considerations into business operations. These models not only help organizations define and implement their responsibilities but also provide tools for evaluating their performance and communicating their values. They reflect varying assumptions about the nature of business in society, ranging from purely profit-driven perspectives to more holistic views centered on sustainability and stakeholder engagement (Carroll, A. B., & Shabana, K. M., 2010).

³ Global Reporting Initiative (GRI). *GRI Standards*. <https://www.globalreporting.org/standards/> consulted: April 26, 2025 at 5:30 pm

⁴ United Nations (2015). *Transforming our World: The 2030 Agenda for Sustainable Development*. <https://sdgs.un.org/2030agenda> consulted: April 26, 2025 at 05:43 pm

2.2. The Shareholder Approach: The Primacy of Profit

The shareholder model is deeply rooted in neoclassical economic theory and remains influential, particularly in financial and investor-oriented contexts. According to this perspective, a corporation's main duty is to maximize shareholder value. Milton Friedman, in his landmark essay *The Social Responsibility of Business is to Increase Its Profits* (1970), argued that any investment in social causes is legitimate only if it contributes to the company's long-term profitability. For Friedman, corporate executives are employees of the owners (shareholders) and have no mandate to spend corporate funds on social issues unless it benefits the firm economically. (Friedman, 1970)

This view tends to frame CSR as a business tool rather than an ethical obligation. CSR is often used as a mechanism to manage risks, enhance corporate image, or create customer loyalty, rather than as a genuine commitment to societal welfare (Jensen, 2002). While this perspective encourages financial discipline, critics argue that it neglects critical issues like inequality, environmental degradation, and human rights, thereby limiting its relevance in today's complex global environment.

2.3. The Stakeholder Approach: Embracing Responsibility beyond Profit

In contrast, the stakeholder model presents a broader and more inclusive perspective on corporate responsibility. Developed by R. Edward Freeman (1984), this framework posits that a company should consider the interests and well-being of all stakeholders not just shareholders. Stakeholders include employees, customers, suppliers, communities, governments, and even future generations. Freeman emphasized that businesses operate in a complex web of relationships, and sustainable success depends on maintaining trust and cooperation with all relevant parties. (Freeman, 1984)

Clarkson advanced the stakeholder theory by distinguishing between primary stakeholders, who are essential for the firm's survival (e.g., employees, investors, customers, suppliers), and secondary stakeholders, who influence or are influenced by the company but are not vital to its immediate functioning (e.g., media, NGOs, activists). This differentiation allows organizations to prioritize engagement strategies while acknowledging the broader societal impact of their decisions. (Clarkson, 1995)

Empirical studies have shown that stakeholder-oriented companies tend to have stronger reputations, better employee morale, and more resilient supply chains (Freeman, Harrison, & Wicks, 2007)). As global challenges like climate change and social inequality intensify, the stakeholder model has gained significant traction, particularly in the context of sustainability and ethical governance.

2.4. Carroll's Pyramid: A Hierarchical View of CSR

Archie Carroll's Pyramid of CSR (1991) remains one of the most influential models in the CSR literature. It organizes corporate responsibilities into four ascending layers:

1. **Economic Responsibilities:** the foundation of business; to be profitable.
2. **Legal Responsibilities:** obey the law and operate within legal frameworks.
3. **Ethical Responsibilities:** do what is right, just, and fair, beyond legal obligations.
4. **Philanthropic Responsibilities:** be a good corporate citizen and contribute to community well-being.



Figure 1 : The pyramid of corporate social responsibility

Source: (Carroll, 1991)

Carroll's framework illustrates that economic and legal responsibilities are foundational, but ethical and philanthropic responsibilities elevate a company's role from compliance to active contribution (Carroll, 1991). The model is praised for its clarity and comprehensiveness, making it a valuable educational and practical tool. Later updates, such as Schwartz and

Carroll's (2003) *Three-Domain Model*, refined this hierarchy by showing that economic, legal, and ethical responsibilities often overlap and interact dynamically (Schwartz, M.S. & Carroll, A.B. , 2003).

2.5. ISO 26000: A Global Standard for Social Responsibility

⁵The **ISO 26000:2010 Guidance on Social Responsibility** is a non-binding international standard developed to help organizations of all types and sizes operate in a socially responsible manner. Unlike other ISO standards, ISO 26000 is not certifiable but provides guidance on integrating CSR into organizational strategy and culture (International Organization for Standardization, 2010).

The standard defines **seven core subjects**:

1. Organizational governance
2. Human rights
3. Labor practices
4. The environment
5. Fair operating practices
6. Consumer issues
7. Community involvement and development

ISO 26000 emphasizes stakeholder engagement, ethical behavior, and transparency. Its holistic approach makes it applicable across industries and borders, aligning with the United Nations' Sustainable Development Goals (SDGs) and other global sustainability frameworks (Hahn, 2012). It is especially useful for companies seeking to benchmark their CSR efforts against international norms.

⁵ International Organization for Standardization (ISO). (2010). *ISO 26000: Guidance on Social Responsibility*. <https://www.iso.org/obp/ui/#iso:std:iso:26000:ed-1:v1:en> at 05:15 pm

2.6. Contemporary Frameworks: Triple Bottom Line and ESG

As CSR continues to evolve, new frameworks have emerged to complement traditional models. John Elkington's Triple Bottom Line (TBL) (1997) expanded the concept of business success to include three dimensions: **People** (social equity), **Planet** (environmental stewardship) and **Profit** (economic viability) (Elkington, 1997).

This model encourages companies to adopt sustainability as a core business strategy, measuring their performance not just in terms of profit, but also in their impact on society and the environment. TBL has been widely adopted in sustainability reporting and integrated management systems.

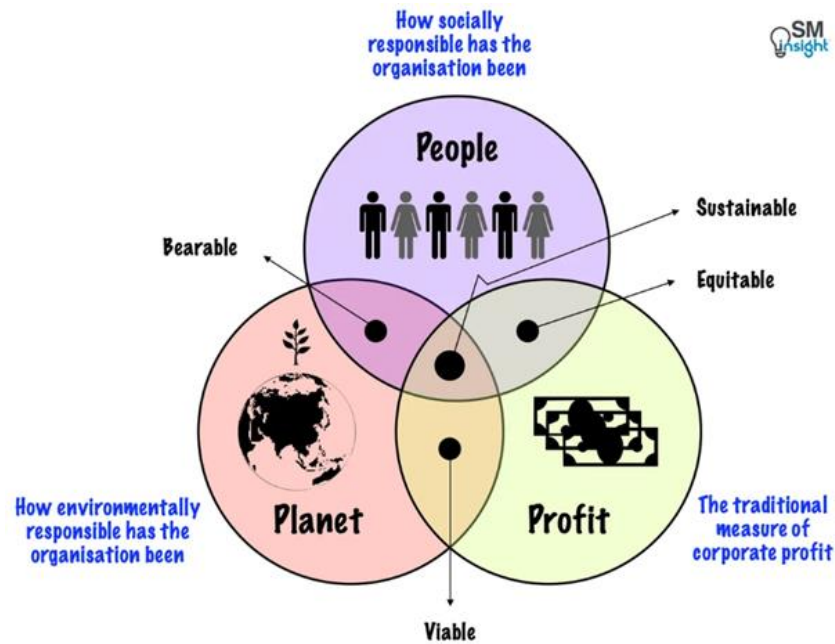


Figure 2 : The interconnection of the elements of the Triple Bottom Line concept

Source: (Mastering the Triple Bottom Line, 2025)⁶

More recently, the Environmental, Social, and Governance (ESG) framework has emerged as a powerful tool, particularly in the financial and investment sectors. ESG criteria are used to evaluate companies' ethical impact and sustainability performance. Investors increasingly rely on ESG ratings to assess risks and long-term viability (Kotsantonis, S., Pinney, C., & Serafeim, G, 2016). Companies with strong ESG performance often attract capital more easily, gain customer trust, and mitigate regulatory risks, highlighting the convergence between ethics and financial strategy.

⁶ Jurevicius, O. (2025, 04 04). *Mastering the Triple Bottom Line*. Récupéré sur Strategic Management insight: <https://strategicmanagementinsight.com/tools/triple-bottom-line/>

2.7. Toward Strategic and Responsible Corporate Behavior

The diversity of CSR models and frameworks reflects the evolving nature of business in a complex, globalized world. While the shareholder model continues to influence corporate governance in many contexts, the stakeholder approach and other sustainability-centered frameworks like Carroll's Pyramid, ISO 26000, TBL, and ESG demonstrate a clear shift toward ethical, inclusive, and long-term value creation. (Carroll, 1991) (International Organization for Standardization, 2010) (Elkington, 1997) (Kotsantonis, S., Pinney, C., & Serafeim, G, 2016)

By understanding and applying these models, organizations can build strategies that align profitability with social purpose and environmental stewardship. Moreover, these frameworks serve as tools for accountability, enabling stakeholders to assess corporate conduct and demand responsible behavior. As the world moves toward sustainability and equity, CSR is no longer a choice it is a necessity for legitimacy, competitiveness, and resilience.

3. The Strategic Role of CSR in Organizational Management:

In today's dynamic and interconnected business environment, Corporate Social Responsibility (CSR) is increasingly recognized not just as a philanthropic add-on but also as a core strategic asset that can drive sustainable competitive advantage. Organizations that embed CSR into their core operations often witness tangible benefits, including enhanced brand reputation, increased customer loyalty, employee engagement, access to capital, innovation, and improved risk management (Carroll, A. B., & Shabana, K. M, 2010) (Eccles, R. G., Ioannou, I., & Serafeim, G, 2014)

3.1. From Philanthropy to Strategic CSR

Traditionally, CSR was often viewed as a peripheral activity an optional commitment to social or environmental causes. However, the growing emphasis on stakeholder theory (Freeman, 1984) and triple bottom line reporting (Elkington, 1997) has pushed companies to integrate CSR into the heart of strategic decision-making. This shift recognizes that long-term financial performance is intertwined with social and environmental sustainability.

According to Porter and Kramer (2006, 2011), the concept of Creating Shared Value (CSV) represents a fundamental rethinking of the relationship between business and society. Rather than treating social and environmental issues as externalities, businesses can create economic value by addressing societal needs, such as reducing environmental harm, improving community well-being, and fostering inclusive growth. This perspective argues that business success and social progress are mutually reinforcing. (Porter, M. E., & Kramer, M. R., 2006; Porter, M. E., & Kramer, M. R, 2011)

3.2. Strategic Alignment and Core Competencies

Strategic CSR entails aligning social and environmental initiatives with the organization's mission, vision, and core competencies. As McWilliams and Siegel (2001) assert, CSR should be approached as a strategic investment one that supports long-term brand building, technological innovation, and human capital development. When CSR initiatives resonate

with the company's capabilities and market positioning, they are more likely to generate measurable returns. (McWilliams, A., & Siegel, D, 2001)

Werther and Chandler (2011) emphasize that strategic CSR is guided by leadership vision, embedded in company culture, and supported by robust stakeholder engagement and performance metrics. For example, integrating CSR into supply chain management, product innovation, and talent development ensures that sustainability is not an afterthought but a systemic part of how the company creates value. (Werther, W. B., & Chandler, D, 2011)

3.3. Accountability, Transparency, and Reporting

An essential aspect of strategic CSR is accountability and transparency. Companies are increasingly required to demonstrate their CSR commitments through comprehensive reporting mechanisms, often guided by international standards such as the Global Reporting Initiative (GRI), the UN Global Compact, the ISO 26000 framework, and the Sustainable Development Goals (SDGs). Such frameworks allow stakeholders to evaluate a company's social and environmental impacts, encouraging greater trust and continuous performance improvement (KPMG International, 2020)⁷ (Global Reporting Initiative (GRI), 2021)⁸

CSR reporting is not just about compliance it is a communication tool that enables firms to articulate their sustainability goals, track progress, and respond to stakeholder expectations. Forward-thinking companies now integrate Environmental, Social, and Governance (ESG) criteria into financial disclosures, recognizing that sustainability is a key indicator of long-term resilience. (KPMG International, 2020)

3.4. Towards a CSR-Driven Organizational Model

Strategic CSR marks a paradigm shift in how businesses approach governance, moving from reactive, compliance-based actions to proactive, purpose-driven strategies. This model integrates social and environmental imperatives into the core DNA of the organization, making sustainability a key driver of value creation rather than a separate or optional activity. Companies that effectively operationalize this model exhibit several interrelated characteristics:

- **Inclusive leadership and ethical governance** (Brown, M. E., & Treviño, L. K, 2006)
- **Stakeholder integration and dialogue** (Donaldson, T., & Preston, L. E, 1995)
- **Sustainable innovation and responsible consumption** (OECD, 2021)
- **Long-term value creation over short-term profits** (OECD, 2021)

a. Inclusive Leadership and Ethical Governance

Ethical leadership is foundational to a CSR-driven organization. According to Brown and Treviño (2006), ethical leaders promote organizational integrity by modeling ethical behavior,

⁷ KPMG. (2020). *The Time Has Come: The KPMG Survey of Sustainability Reporting 2020*. KPMG International. https://assets.kpmg.com/content/dam/kpmg/be/pdf/2020/12/The_Time_Has_Come_KPMG_Survey_of_Sustainability_Reporting_2020.pdf

⁸ Global Reporting Initiative (GRI). (2021). *Consolidated Set of GRI Sustainability Reporting Standards 2021*. <https://www.globalreporting.org/standards/>

encouraging open dialogue, and holding themselves accountable to high moral standards. Inclusive leadership further amplifies this by embracing diversity, equity, and a shared vision, ensuring that the voices of all stakeholders internal and external are heard and valued. (Brown, M. E., & Treviño, L. K, 2006)

Organizations with ethical and inclusive leadership:

- Build trust among employees and stakeholders.
- Attract and retain talent who align with the company's values.
- Reduce risks related to ethical breaches and reputational damage.
- Foster a values-based culture that supports long-term goals over short-term gains.

b. Stakeholder Integration and Dialogue

Rather than focusing solely on shareholders, CSR-driven organizations adopt a stakeholder-centric approach, recognizing that their legitimacy and long-term success depend on relationships with a wide array of actors: employees, customers, communities, suppliers, governments, and civil society. As Donaldson and Preston (1995) argue, stakeholder theory provides both a descriptive and normative framework for ethical and strategic decision-making. (Donaldson, T., & Preston, L. E, 1995)

Key practices include:

- Conducting stakeholder mapping and engagement exercises.
- Creating forums for dialogue and co-creation of solutions.
- Designing CSR initiatives that respond to local community needs.

This continuous dialogue enhances organizational agility, prevents conflicts, and fosters mutual value creation.

c. Sustainable Innovation and Responsible Consumption

Incorporating CSR into innovation processes allows companies to develop products, services, and business models that meet societal challenges while generating profit. The OECD (2021) emphasizes that responsible innovation is a strategic lever for transitioning to green economies and sustainable consumption. (OECD, 2021)

Organizations embracing this dimension:

- Invest in R&D for clean technologies and circular economy solutions.
- Promote eco-efficiency and responsible sourcing in supply chains.
- Encourage sustainable consumer behaviors through transparent labeling, education, and product design.

d. Long-Term Value Creation Over Short-Term Profits

(OECD, 2021) CSR-oriented firms prioritize resilience and long-term growth over immediate financial returns. They understand that addressing social and environmental issues is not only

ethically sound but also strategically wise in terms of risk mitigation, brand equity, and license to operate.

Long-term strategies include:

- Embedding ESG metrics into performance evaluation and executive compensation.
- Aligning with frameworks like the UN Sustainable Development Goals (SDGs).
- Making investment decisions based on integrated reporting that reflects financial, social, and environmental outcomes.

A CSR-driven organizational model is one that actively seeks to embed sustainability and responsibility into every layer of the business. It reflects a holistic view of business as a social institution with obligations beyond profit, committed to building a future where business success aligns with societal well-being and environmental stewardship. The shift to such a model requires cultural transformation, leadership commitment, cross-functional collaboration, and continuous innovation but the returns, in terms of resilience, reputation, and relevance, are well worth the effort.

Conclusion:

The first section has shown that CSR has grown from a simple idea of giving back to the community to a key part of how companies operate. From the early views of Bowen to today's strategic models like Carroll's Pyramid, the ISO 26000, and Creating Shared Value, CSR now includes legal, ethical, social, and environmental responsibilities. Different theories, like the shareholder and stakeholder approaches, offer different ways of seeing CSR. But today, most companies realize that success depends on more than just profits. Using CSR helps companies build trust, improve their performance, and support a more sustainable world.

Section 02: Sustainable Development: Principles and Strategic Imperatives

Introduction:

In the context of global environmental crises, persistent social inequalities, and economic uncertainties, the concept of sustainable development has emerged as a vital framework for rethinking the way societies grow, govern, and allocate resources. Rooted in the intersection of ecological balance, social justice, and economic viability, sustainable development seeks to harmonize the needs of current and future generations. This section explores the fundamental principles and strategic imperatives of sustainable development by tracing its historical evolution and conceptual definitions, analyzing its core pillars economic, social, and environmental and examining the international frameworks that guide its implementation. Understanding these dimensions is essential for assessing how organizations, institutions, and societies can adopt more sustainable practices to meet global development challenges in an integrated and inclusive manner.

1. The Concept of Sustainable Development: Historical Evolution and Definition:

1.1. Early Roots: From Environmental Concerns to Global Awareness

The notion of sustainable development is a complex and evolving paradigm that emerged out of the growing concerns about environmental degradation and social inequities during the late 20th century. Its roots can be traced back to the early 1970s with the landmark report *The Limits to Growth* by the Club of Rome (Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. W., 1972). This report, based on computer simulations, highlighted the potential ecological and economic collapse due to the relentless pursuit of growth in a world with finite resources. It introduced the critical idea that unchecked economic and population growth could lead to serious environmental constraints, thereby requiring a rethinking of global development trajectories. The work emphasized the necessity of balancing human aspirations with the planet's ecological limits, thus setting the foundation for sustainable thinking in global policy (Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. W., 1972)

1.2. Defining Sustainable Development: The Brundtland Commission

The concept of sustainable development gained widespread recognition and formal definition with the publication of the Brundtland Report, *Our Common Future*, by the World Commission on Environment and Development (WCED) in 1987. The report famously defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p. 43)⁹. This definition brought to the forefront two critical concepts: the prioritization of the essential needs of the world's poor, and the limitations imposed by technology and social organization on the environment's ability to meet present and future demands. The Brundtland Report not only underscored the interconnectedness of economic growth, social

⁹ World Commission on Environment and Development (WCED). (1987). *Our Common Future*. Oxford University Press. <https://sustainabledevelopment.un.org/content/documents/5987our-common-future>.

inclusion, and environmental protection but also placed sustainability on the global political agenda (Redclift, 2005).

1.3. Expanding the Scope: Multidimensional Understanding

Since the late 1980s, the concept of sustainable development has evolved from its initial environmental and developmental focus into a multidimensional framework encompassing environmental, economic, and social dimensions (Sachs, 2015). This broader perspective recognizes that true sustainability cannot be achieved without addressing issues of equity, poverty reduction, human rights, governance, and economic resilience. The 1992 United Nations Conference on Environment and Development (UNCED), commonly known as the Earth Summit, further elaborated on these dimensions by launching Agenda 21, a comprehensive action plan for sustainable development worldwide (United.Nations, 1992). This expansion reflected an understanding that economic development, environmental stewardship, and social equity must be pursued simultaneously rather than sequentially or independently.

1.4. Sustainable Development as a Normative Vision

Contemporary scholarship increasingly positions sustainable development not merely as a policy goal but as a normative vision that requires transformative systemic change. According to Sachs (2015), achieving sustainability demands "systems thinking," where economic, social, and environmental systems are understood as deeply interconnected and dynamic (Sachs, 2015). Transformative policies must be devised to restructure institutions, reshape markets, and realign incentives to promote long-term human and ecological well-being. The 2015 United Nations Sustainable Development Goals (SDGs) operationalized this vision into 17 interlinked goals aimed at ending poverty, protecting the planet, and ensuring peace and prosperity by 2030 (United.Nations, 2015)¹⁰.

The Three Pillars of Sustainable Development

An illustrative way to understand sustainable development is through the "three-pillar" model: environmental protection, economic growth, and social equity. These three pillars are mutually reinforcing, and sustainable development is achieved when policies and actions integrate all three dimensions harmoniously (Purvis, B., Mao, Y., & Robinson, D., 2019).

Balancing these pillars remains a complex task, as actions that promote economic development can sometimes undermine environmental sustainability, while social policies might strain economic resources. Therefore, sustainability requires a careful, integrated approach that seeks synergies and manages trade-offs across sectors and scales (Purvis, B., Mao, Y., & Robinson, D., 2019)

¹⁰United Nations. (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development*. United Nations General Assembly. <https://sdgs.un.org/2030agenda>

2. The Three Pillars of Sustainability: Economic, Social, and Environmental Dimensions:

2.1. Conceptual Foundation: The Interdependence of Three Pillars

The foundation of sustainable development rests upon the interdependence of three essential pillars: economic, social, and environmental sustainability. These dimensions are often visualized through a Venn diagram, where the overlapping area represents the ideal space of integrated sustainability (Purvis, B., Mao, Y., & Robinson, D., 2019).

Recognizing the interconnectedness among these pillars is crucial, as efforts to advance one dimension without consideration of the others can result in imbalances and unintended consequences. True sustainable development, therefore, requires a holistic approach where economic advancement, social equity, and environmental preservation are pursued simultaneously and synergistically. The following diagram visually represents the interconnectedness of these pillars:

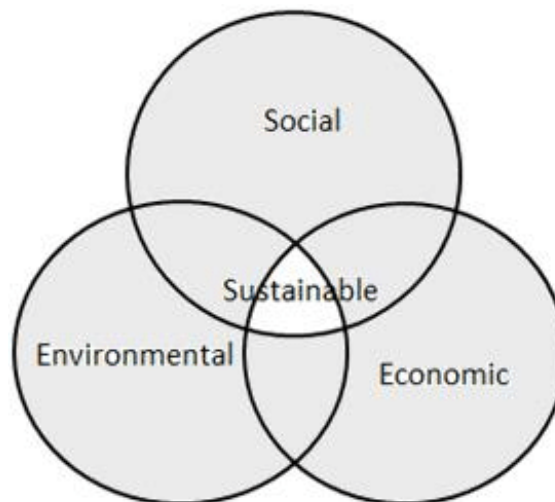


Figure 3: Venn diagram of the three pillars of sustainable development
Source: (The challenge of labour shortage for sustainable construction, 2016)¹¹

a. Environmental Sustainability: Protecting Natural Systems

Environmental sustainability focuses on the responsible management and conservation of natural resources to safeguard the ecosystems that sustain human life. It emphasizes operating within the Earth's planetary boundaries to prevent irreversible ecological damage, such as climate change, biodiversity loss, and land degradation (Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S., Lambin, E., ... & Foley, J., 2009). Practical actions under this pillar include reducing greenhouse gas emissions, protecting endangered species, fostering

¹¹ Kotsantonis, S., Pinney, C., & Serafeim, G. (2016). ESG Integration in Investment Management: Myths and Realities. *Journal of Applied Corporate Finance*, 28(2), 10-16.
https://www.researchgate.net/publication/309957941_The_challenge_of_labour_shortage_for_sustainable_construction

reforestation, and transitioning to circular economy models that minimize waste and promote resource efficiency (Ellen MacArthur, 2015). The principle of environmental sustainability acknowledges that economic and social systems are nested within and wholly dependent on the natural environment, making its preservation paramount.

b. Economic Sustainability: Growth within Ecological Limits

Economic sustainability refers to fostering systems of production and consumption that ensure long-term economic prosperity while maintaining environmental integrity and promoting social inclusion. It involves building resilient economies that create stable employment opportunities, encourage innovation, and prioritize equitable wealth distribution (Daly, 1996). Sustainable economic practices advocate for maintaining both human-made and natural capital to ensure that future generations inherit an intact base of resources and opportunities (Costanza, R., Cumberland, J. H., Daly, H. E., Goodland, R., & Norgaard, R. B. , 1997). Examples include promoting green industries, supporting local economies, and implementing fiscal policies that internalize environmental costs. Thus, economic sustainability challenges the traditional model of endless GDP growth in favor of a model that respects ecological constraints and social well-being.

c. Social Sustainability: Building Inclusive and Resilient Communities

Social sustainability involves creating just, inclusive, and equitable societies where human rights are protected, cultural diversity is respected, and all individuals have access to opportunities and essential services. It encompasses social cohesion, participatory governance, equity, and intergenerational solidarity (Colantonio, 2007).

Addressing social sustainability means tackling inequalities related to education, healthcare, income, and political representation. It also emphasizes the importance of building community resilience against social, economic, and environmental shocks (Boström, 2012). Without social sustainability, environmental and economic advancements are fragile and susceptible to conflict and instability, highlighting its central role in the sustainable development agenda.

2.2.Integrative Approach: Managing Trade-offs and Synergies

The interconnection among the three pillars of sustainability reflects the inherent complexity of achieving truly sustainable development. Progress in one domain must be carefully balanced with impacts on the others; for example, rapid industrial economic growth may generate jobs but can also exacerbate pollution and social inequality if unchecked (Elkington, 1997). Therefore, sustainable policymaking requires systemic thinking to maximize synergies

such as investing in green technologies that generate employment while protecting the environment and minimize trade-offs. Frameworks like the "triple bottom line" introduced by John Elkington advocate measuring success not solely by financial profits but also by environmental stewardship and social contributions.

3. International Frameworks and Policies Supporting Sustainable Development:

Global recognition of the importance of sustainable development has led to the creation of several international frameworks and agreements aimed at promoting sustainability across nations and sectors.

One of the earliest international milestones was the *United Nations Conference on Environment and Development* (UNCED), also known as the *Earth Summit*, held in Rio de Janeiro in 1992. This conference resulted in the adoption of *Agenda 21*, a comprehensive plan of action to promote sustainable development at global, national, and local levels (United.Nations, 1992).

Building upon this momentum, the *Johannesburg World Summit on Sustainable Development* in 2002 further emphasized the integration of the three pillars and highlighted the importance of partnerships for sustainable development.

A more recent and ambitious framework is the *2030 Agenda for Sustainable Development*, adopted by all UN Member States in 2015. This agenda introduced the **17 Sustainable Development Goals (SDGs)**, which serve as a universal call to action to end poverty, protect the planet, and ensure peace and prosperity for all by 2030 (United.Nations, 2015). The SDGs are interconnected and provide a shared blueprint for countries to align their policies and initiatives with sustainability imperatives.

In addition, international agreements such as the *Paris Agreement* on climate change (2015) aim to limit global warming to below 2°C and ideally to 1.5°C above pre-industrial levels, underscoring the global commitment to environmental sustainability.

Furthermore, organizations such as the World Bank, the Organisation for Economic Co-operation and Development (OECD), and the United Nations Development Programme (UNDP) have developed various indicators, tools, and reports to monitor progress and support policy-making in sustainable development. These frameworks provide guidance, benchmarks, and accountability mechanisms essential for translating sustainability goals into actionable strategies.

Timeline of Major International Frameworks on Sustainable Development:

Year	Event	Key Outcomes
1972	Stockholm Conference	First global meeting on the environment (UN Conference on the Human Environment)
1987	Brundtland Report	Defines "sustainable development"; emphasizes needs of future generations
1992	Earth Summit (Rio de Janeiro)	Adoption of Agenda 21, Rio Declaration, and Forest Principles
2000	Millennium Summit	Adoption of Millennium Development Goals (MDGs)
2002	Johannesburg World Summit	Reinforces Agenda 21; focus on implementation and partnerships
2012	Rio+20 Conference	Launch of the idea for Sustainable Development Goals (SDGs)
2015	Adoption of SDGs & Paris Agreement	17 SDGs launched; Paris Agreement signed to combat climate change
2023	SDG Summit	Mid-term review of SDG progress globally

Figure 4: Timeline of Major International Frameworks on Sustainable Development

Conclusion:

Sustainable development represents more than just a theoretical model; it is a comprehensive and action-oriented vision for the future. From its origins in environmental concerns and socio-economic debates to its current position as a guiding principle for global governance and corporate responsibility, sustainable development has evolved into a multidimensional imperative. The interplay among its three pillars economic, social, and environmental underscores the need for systemic, balanced approaches that consider long-term impacts. Moreover, international frameworks such as Agenda 21, the 2030 Agenda, and the Paris Agreement provide essential policy anchors and collaborative platforms for pursuing sustainability goals. As this section demonstrates, embedding sustainable development principles into decision-making processes is not only a moral obligation but also a strategic necessity for achieving resilience, equity, and environmental stewardship in an increasingly complex world.

Section 03: The Interconnection between CSR and Sustainable Development

Introduction:

Corporate Social Responsibility (CSR) and sustainable development are increasingly recognized as mutually reinforcing frameworks that guide corporate behavior in the 21st century. As global challenges such as climate change, social inequality, and resource scarcity intensify, businesses are under growing pressure to not only generate economic value but also contribute to broader societal and environmental goals. CSR has evolved from a voluntary philanthropic activity into a strategic component of corporate governance and accountability, particularly in alignment with the United Nations Sustainable Development Goals (SDGs). This section explores the role of CSR as a driver of sustainable development, with a particular focus on how CSR initiatives can contribute to achieving the SDGs and how corporations can embed CSR within their broader sustainability strategies to enhance long-term performance, reputation, and stakeholder trust.

1. CSR as a Driver of Sustainable Development Goals (SDGs):

1.1. Introduction: CSR and the 2030 Agenda for Sustainable Development

The adoption of the 2030 Agenda for Sustainable Development in 2015 established a universal framework designed to address pressing global challenges, including poverty, inequality, climate change, environmental degradation, peace, and justice (United Nations, 2015). The Sustainable Development Goals (SDGs) comprising 17 goals and 169 targets call for action by all sectors of society, including governments, businesses, and civil society organizations. Within this global framework, Corporate Social Responsibility (CSR) has emerged as a crucial mechanism for the private sector to operationalize and contribute meaningfully to sustainable development (Scheyvens, R., Banks, G., & Hughes, E., 2016). CSR offers companies both ethical imperatives and strategic opportunities to align their operations with the SDGs, thereby fostering shared value creation.

1.2. CSR as a Strategic Alignment Tool for Achieving SDGs

CSR practices provide a practical approach for businesses to align their activities with the SDGs, going beyond philanthropic efforts toward integrated business strategies. According to the World Business Council for Sustainable Development ((WBCSD), 2017), companies that embed CSR into their core operations such as promoting gender equality (SDG 5), supporting decent work and economic growth (SDG 8), and committing to climate action (SDG 13) not only contribute to societal well-being but also enhance their own market resilience and reputation. Strategic CSR enables firms to internalize sustainability into their value chains, creating long-term competitive advantages through innovation, risk management, and stakeholder loyalty ((WBCSD), 2017) (Carroll, A. B., & Shabana, K. M., 2010)

Integrating CSR into Core Business Models

Recent research highlights that CSR initiatives are most effective when they are integrated directly into business models rather than functioning as peripheral activities. Scheyvens,

Banks, and Hughes (2016) argue that meaningful private sector engagement with the SDGs requires a shift from traditional philanthropy to business strategies that inherently address sustainability challenges. Companies operating in critical sectors — such as agriculture, energy, and manufacturing — have demonstrated that CSR-driven innovations can address multiple SDGs simultaneously. For example, renewable energy firms adopting inclusive business models contribute not only to SDG 7 (Affordable and Clean Energy) but also to SDG 13 (Climate Action) and SDG 8 (Decent Work and Economic Growth) (Scheyvens, R., Banks, G., & Hughes, E., 2016); (Compact, 2016).

1.3. CSR and Stakeholder Engagement for Sustainable Development

CSR also serves as a vital mechanism for strengthening stakeholder engagement, an essential component for advancing sustainable development goals. Businesses are increasingly held accountable by diverse stakeholders — including employees, consumers, investors, and local communities — who demand greater corporate transparency, ethics, and sustainability commitments (Freeman, Harrison, & Wicks, 2007). According to Porter and Kramer (2011), firms that create "shared value" by addressing societal needs through profitable business strategies can achieve sustainable competitive advantages while simultaneously contributing to the SDGs (Porter, M. E., & Kramer, M. R., 2011). This approach emphasizes that social progress and corporate success are interconnected and mutually reinforcing.

2. Integrating CSR into Corporate Sustainability Strategies:

2.1. The Necessity of Integrating CSR in Corporate Sustainability

In the contemporary business landscape, the integration of Corporate Social Responsibility (CSR) into broader corporate sustainability strategies has shifted from being a voluntary trend to an essential organizational imperative. Corporate sustainability strategies offer the long-term vision and operational pathways for companies to generate economic value while simultaneously minimizing adverse environmental and social impacts (Dyllick, T., & Muff, K., 2016). CSR, when embedded into these sustainability strategies, operationalizes the company's ethical commitments by implementing actions that are measurable, transparent, and aligned with stakeholder expectations. As highlighted by Lozano (2015), companies that view CSR as a core component of sustainability strategies tend to demonstrate stronger reputational capital, stakeholder trust, and resilience in dynamic market conditions. (Lozano, 2015)

2.2. Systems Thinking and Strategic Integration of CSR

The literature emphasizes that successful CSR integration requires a systems-thinking approach. Firms that adopt this perspective do not treat CSR as an isolated function; rather, they link CSR initiatives to business innovation, enterprise risk management, and supply chain sustainability (Epstein, 2008; Hart, S. L., & Milstein, M. B., 2003). This approach helps transition CSR from a compliance-driven or public relations exercise into a driver of strategic performance and organizational learning. For instance, Epstein (2008) outlines how

embedding CSR into core business processes fosters a culture of continuous improvement, allowing companies to anticipate societal shifts and proactively manage risks. Systems-thinking also supports the alignment of CSR with Sustainable Development Goals (SDGs), ensuring that companies contribute to global sustainability while securing long-term profitability.

2.3. Case Studies: Unilever and Patagonia

Practical examples demonstrate the viability and benefits of integrating CSR into corporate strategies. Unilever's Sustainable Living Plan illustrates how CSR objectives can be systematically woven into a company's global business model to simultaneously reduce environmental footprints, enhance health and well-being, and advance economic empowerment (Unilever, 2019). Unilever's approach emphasizes setting measurable goals, such as halving environmental impact and enhancing the livelihoods of millions, directly aligning business growth with sustainability imperatives.

Similarly, Patagonia, an outdoor apparel company, has embedded CSR principles into its core operations by prioritizing environmental responsibility in product design, ethical sourcing, and community engagement (Haanaes, K., Balagopal, B., Arthur, D., Kong, M. T., Velken, I., Hopkins, M. S., & Kruschwitz, N., 2013). Patagonia's initiatives, such as its commitment to using recycled materials and its transparency in supply chain practices, exemplify how companies can link profitability with purpose, reinforcing brand loyalty and societal impact.

2.4. Mechanisms for Embedding CSR: Standards, KPIs, and Reporting

Integrating CSR into corporate sustainability strategies also necessitates the establishment of clear Key Performance Indicators (KPIs), rigorous reporting mechanisms, and adherence to international standards. Frameworks such as the Global Reporting Initiative (GRI), the UN Global Compact, and ISO 26000 provide guidelines for measuring and communicating social and environmental impacts (Global Reporting Initiative (GRI), 2021; International Organization for Standardization, 2010). By adopting these standards, companies enhance accountability, transparency, and comparability, enabling stakeholders to assess their sustainability performance effectively.

Transparent reporting on CSR initiatives not only meets regulatory and societal expectations but also serves as a strategic management tool that fosters continuous improvement. Firms that regularly publish sustainability reports and integrate them into annual reports tend to experience higher levels of stakeholder engagement and improved corporate reputation (KPMG, 2020).

2.5. Financial and Performance Outcomes of Integrated CSR

Evidence suggests that firms with deeply embedded CSR and sustainability practices outperform their counterparts financially over the long term. Eccles, Ioannou, and Serafeim (2014) conducted a longitudinal study demonstrating that companies classified as "high sustainability" those integrating environmental, social, and governance (ESG) factors into corporate strategies achieved superior stock market performance and return on assets compared to "low sustainability" firms (Eccles, R. G., Ioannou, I., & Serafeim, G, 2014). This

financial outperformance is attributed to better stakeholder relationships, enhanced risk management, innovation capacity, and long-term strategic orientation. Thus, embedding CSR into corporate sustainability not only fulfills ethical and regulatory requirements but also creates tangible economic value.

Conclusion:

The interconnection between CSR and sustainable development is both profound and essential for addressing the complex challenges of the 21st century. CSR provides a practical pathway for businesses to engage with and contribute to the realization of the Sustainable Development Goals, thereby extending their role beyond profit generation to societal transformation. When CSR is integrated into corporate sustainability strategies, it strengthens a company's ability to respond to stakeholder expectations, build long-term resilience, and create shared value across economic, social, and environmental domains. As this section has demonstrated, the synergy between CSR and sustainable development is not only ethically desirable but also strategically imperative in today's global economy.

Conclusion of chapter one:

This chapter has laid the conceptual groundwork for understanding the multifaceted relationship between Corporate Social Responsibility (CSR) and sustainable development. By first exploring the foundational theories and models of CSR, the discussion emphasized the evolution of CSR from a voluntary philanthropic activity to a strategic organizational imperative that balances profitability with ethical and social responsibilities. The examination of stakeholder versus shareholder approaches and the strategic integration of CSR into management practices revealed how organizations can use CSR as a tool for long-term value creation, innovation, and stakeholder engagement.

The chapter then shifted focus to the broader framework of sustainable development tracing its historical evolution, defining its core principles, and unpacking its three essential pillars: economic, social, and environmental sustainability. These dimensions are not only interdependent but are also critical for creating holistic and equitable progress. The analysis of international frameworks such as the 2030 Agenda for Sustainable Development, Agenda 21, and the Paris Agreement underscored the importance of collective, cross-sectoral action in addressing global sustainability challenges.

Finally, the chapter examined the interconnection between CSR and sustainable development, highlighting how CSR serves as a catalyst for achieving the Sustainable Development Goals (SDGs). It demonstrated that the strategic integration of CSR into corporate sustainability strategies enhances organizational performance, reinforces ethical governance, and enables businesses to contribute meaningfully to societal and environmental well-being.

In sum, Chapter 1 establishes that CSR is not a peripheral activity but a central driver of sustainable transformation. Its alignment with sustainable development goals and principles provides a framework through which organizations can align their operations with global imperatives. This foundational understanding will guide the subsequent chapters, which will explore how CSR is implemented in real-world contexts, particularly within organizations operating in the energy sector the focus of the empirical research in this thesis.

CHAPTER TWO:

Evaluating the Effectiveness and Impact
of CSR Initiatives in the Context of
Sustainable Development.

Introduction of chapter two:

In recent years, the growing emphasis on corporate accountability and ethical responsibility has led to the proliferation of Corporate Social Responsibility (CSR) initiatives across industries. As organizations increasingly align their operations with the principles of sustainable development, there is a critical need to assess the effectiveness and impact of these CSR initiatives. Understanding whether CSR programs deliver meaningful outcomes not only for the company but also for society and the environment is essential for justifying investments, improving practices, and reinforcing organizational legitimacy.

This chapter explores the conceptual, methodological, and practical dimensions of evaluating CSR in the context of sustainable development. It begins by defining what constitutes CSR performance and identifying the key metrics used to measure success across economic, social, and environmental domains. This includes both input/output indicators and outcome-based assessments that reflect real-world impact. However, measuring effectiveness is not without its challenges, especially in a landscape where subjective perceptions and long-term sustainability goals play a crucial role.

The chapter then delves into the various methodological approaches for CSR evaluation, examining both qualitative and quantitative tools. Established evaluation frameworks such as Social Return on Investment (SROI), Environmental, Social, and Governance (ESG) metrics, and broader impact assessment models are analyzed to understand their relevance and limitations. Additionally, the role of stakeholder engagement and perception is highlighted as a critical factor in assessing the legitimacy and effectiveness of CSR strategies.

Finally, the chapter considers the broader implications of CSR efforts on sustainable development. It assesses the extent to which CSR initiatives contribute to economic performance, social progress, and environmental stewardship core pillars of sustainability. Through this analysis, the chapter aims to provide a comprehensive framework for evaluating CSR as a strategic driver of sustainable and inclusive growth.

Section 01: Assessing the Effectiveness of CSR Programs

Introduction:

As CSR has evolved from a voluntary philanthropic concept to a strategic business practice, assessing its actual effectiveness has become a central concern for both academics and practitioners. In an era where transparency, accountability, and value creation are expected from organizations, measuring the outcomes of CSR programs is no longer optional it is essential for evaluating their alignment with sustainable development goals and for ensuring continuous improvement.

This section explores the conceptual and practical aspects of assessing CSR effectiveness. It begins by examining how CSR performance is defined and measured, identifying key performance indicators (KPIs), benchmarks, and standards that allow organizations to quantify their social, environmental, and economic contributions. Beyond metrics, it also considers the qualitative dimensions of impact, including long-term societal benefits and stakeholder trust.

The section further analyzes the specific dimensions of CSR social, environmental, and economic and investigates how organizations evaluate their initiatives within each pillar. Whether it involves reducing carbon emissions, improving employee well-being, or supporting community development, effective assessment tools are necessary to ensure accountability and strategic alignment.

Finally, this section addresses the inherent challenges and limitations in CSR evaluation. These include difficulties in attribution, data collection, standardization, and the complex interplay between short-term outputs and long-term impacts. Understanding these limitations is critical for designing more robust and meaningful CSR evaluation systems that support sustainable decision-making.

1. Defining and Measuring CSR Performance: Key Indicators and Metrics:

1.1. Understanding CSR Performance

Corporate Social Responsibility (CSR) performance refers to the extent to which an organization meets its ethical, environmental, social, and economic responsibilities. It is closely tied to the broader concept of sustainable development and reflects how an enterprise integrates social and environmental concerns into its business operations and stakeholder interactions. CSR performance is no longer considered a peripheral activity but a strategic necessity in the contemporary corporate landscape. As Carroll (1991) outlined in his seminal CSR pyramid, true responsibility spans economic, legal, ethical, and philanthropic domains highlighting that CSR should generate both tangible and intangible benefits for the firm and its stakeholders. (Carroll, 1991)

1.2. Frameworks for CSR Evaluation

To assess CSR performance effectively, organizations and researchers rely on several well-established frameworks that guide data collection, benchmarking, and reporting. Among these, the Global Reporting Initiative (GRI) Standards are widely adopted for sustainability reporting. The GRI emphasizes the principles of *materiality* (focusing on what matters most to stakeholders), *stakeholder inclusiveness*, *sustainability context*, and *completeness* (Global Reporting Initiative (GRI), 2021). Similarly, the ISO 26000 guidance on social responsibility provides a holistic view by encouraging organizations to act ethically and transparently, accounting for their impacts on society and the environment (International Organization for Standardization, 2010)

Moreover, the Sustainability Accounting Standards Board (SASB) offers sector-specific standards that allow companies to report financially material sustainability information to investors. The United Nations Sustainable Development Goals (SDGs) have also become a critical alignment tool for CSR efforts, allowing companies to frame their initiatives within a global development agenda (United.Nations, 2015).

1.3. Key Performance Indicators (KPIs) for CSR

Effective CSR measurement relies on a set of quantifiable and qualitative Key Performance Indicators (KPIs) that reflect a company's commitment to its social, environmental, and governance objectives. Environmental indicators may include metrics such as greenhouse gas (GHG) emissions, energy and water usage, waste management, and ecological restoration efforts. Social indicators often capture employee engagement, workplace diversity, occupational health and safety, and community impact programs. Economic indicators may assess responsible sourcing, fair trade practices, and local economic development contributions.

Epstein and Buhovac (2008) emphasize that performance metrics should be specific, measurable, achievable, relevant, and time-bound (SMART) (Epstein, M. J., & Buhovac, A. R., 2014). For instance, instead of broadly stating "reduce emissions," a KPI might specify "achieve a 25% reduction in CO₂ emissions per unit of production by 2027." Metrics such as employee satisfaction scores, gender pay equity, training hours per employee, and philanthropic contributions are also essential tools for tracking CSR impact (Kotler, P., & Lee, N, 2005)

1.4. The Rise of ESG Ratings

In recent years, Environmental, Social, and Governance (ESG) ratings have gained prominence as external, standardized assessments of corporate responsibility. ESG scores are used by investors, regulators, and rating agencies to evaluate companies' non-financial performance. These metrics assess firm-level practices in areas such as climate change mitigation, supply chain labor rights, anti-bribery

measures, and corporate board diversity (Eccles, R. G., Ioannou, I., & Serafeim, G., 2014). ESG ratings facilitate comparative analysis and investment decision-making, although concerns remain about data consistency and rating divergence across agencies (Berg, F., Koelbel, J., & Rigobon, R., 2022)

Several platforms such as MSCI ESG Ratings, Sustainalytics, and Refinitiv ESG Scores have emerged as key players in this space, enabling companies to understand how they are perceived in the investment community and where improvements are needed. These scores are becoming integral to company valuation and risk analysis, reflecting the integration of CSR into financial markets.

1.5. Outputs vs. Outcomes in CSR Measurement

A critical issue in CSR performance assessment is distinguishing between *outputs* and *outcomes*. Outputs refer to the immediate, tangible results of CSR activities such as the number of trees planted or the funds donated. Outcomes, on the other hand, concern the long-term and often qualitative impacts of those actions, such as improved biodiversity, increased community resilience, or enhanced public trust. As Porter and Kramer (2011) argue in their concept of *Creating Shared Value (CSV)*, CSR initiatives should transcend charitable giving and focus on integrating social progress into the core value chain of the business. This approach ensures that initiatives deliver both competitive advantage and societal benefit. (Porter, M. E., & Kramer, M. R., 2011)

Measuring outcomes requires robust methodologies including longitudinal studies, stakeholder feedback mechanisms, and impact assessment tools. Social return on investment (SROI) is one such tool that monetizes social impact, allowing for clearer comparisons between different projects and programs (Nicholls, J., Lawlor, E., Neitzert, E., & Goodspeed, T., 2012). For example, a literacy program may be evaluated not just by the number of books distributed, but by improvements in school performance and employment rates among beneficiaries.

1.6. Challenges and Future Directions

Despite advances in CSR measurement, significant challenges remain. These include data collection difficulties, lack of standardized reporting practices across industries, and the risk of *greenwashing* where companies exaggerate or falsify their CSR achievements to gain public favor. Transparency, third-party audits, and stakeholder participation are crucial to overcoming these limitations (Delmas, M. A., & Burbano, V. C., 2011). Furthermore, integrating real-time data analytics, block chain for traceability, and artificial intelligence for trend analysis represents a promising frontier in enhancing CSR performance tracking (George, G., Merrill, R. K., & Schillebeeckx, S. J., 2021)

In conclusion, measuring CSR performance is both a technical and strategic endeavor. It requires clear alignment between corporate values, stakeholder expectations, and measurable outcomes. Through comprehensive frameworks, targeted KPIs, and an emphasis on outcomes over outputs, organizations can not only prove their commitment to social and environmental goals but also drive continuous improvement in their sustainability journey.

2. Evaluating the Social, Environmental, and Economic Dimensions of CSR Initiatives:

2.1. Introduction to the Triple Bottom Line in CSR

Corporate Social Responsibility (CSR) has evolved into a strategic imperative that goes beyond philanthropic gestures, encompassing a broad spectrum of responsibilities toward society, the environment, and the economy. This multidimensional perspective is encapsulated in the concept of the **Triple Bottom Line** (TBL), introduced by Elkington (1997), which encourages organizations to simultaneously pursue social equity, environmental quality, and economic prosperity (Elkington, 1997). Evaluating CSR initiatives through this lens provides a comprehensive understanding of their real-world impacts and helps organizations align their strategies with sustainable development goals.

2.2. Social Impact Assessment of CSR Initiatives

The **social dimension** of CSR focuses on the organization's responsibilities toward people and communities. It includes areas such as labor practices, employee well-being, community involvement, diversity, and human rights. Evaluating social impact is inherently complex, as it involves both quantitative and qualitative outcomes.

Quantitative metrics may include **employee turnover rates, training hours per employee, diversity indices, and local employment generation** (Brammer, S., Millington, A., & Rayton, B, 2007). Qualitatively, organizations often employ **social audits, stakeholder interviews, and community feedback mechanisms** to understand the perceived value and effectiveness of CSR programs (Zadek, 2001).

For instance, Nestlé's "Creating Shared Value" initiative emphasizes education, nutrition, and rural development. The outcomes are assessed through surveys, impact reports, and longitudinal studies that measure improvements in livelihoods and community resilience (Nestlé., 2020). These assessments also help in identifying areas of unmet needs and enhancing stakeholder engagement.

2.3. Environmental Performance Evaluation

The **environmental dimension** of CSR concerns the organization's efforts to minimize ecological footprints, enhance resource efficiency, and promote sustainable practices. This dimension is increasingly gaining importance in the face of global environmental crises such as climate change, biodiversity loss, and pollution.

Evaluation methods include both **quantitative indicators** such as **carbon emissions, water and energy consumption, waste recycling rates, and compliance with environmental standards** like ISO 14001 and **qualitative evaluations** such as environmental audits and stakeholder perception studies (Dyllick, T., & Hockerts, K., 2002).

A widely used tool is the **Life Cycle Assessment (LCA)**, which provides a cradle-to-grave analysis of a product's environmental impact across its entire lifecycle (Finnveden, G., Hauschild, M. Z., Ekvall, T., Guinee, J., Heijungs, R., Hellweg, S., ... & Suh, S, 2009).

Companies like Patagonia employ LCA to optimize their supply chains and reduce environmental burdens, offering transparency through product-level sustainability reports.

Moreover, **Environmental, Social, and Governance (ESG)** reporting frameworks like the Global Reporting Initiative (GRI) or the Sustainability Accounting Standards Board (SASB) have become instrumental in standardizing environmental disclosures, facilitating cross-company comparisons and investor decision-making.

2.4. Economic Impact Evaluation

The **economic dimension** evaluates the financial sustainability and value creation of CSR initiatives. Contrary to the traditional view that CSR incurs costs without clear returns, research increasingly shows that effective CSR strategies can **enhance profitability, foster innovation, and build brand equity** (Orlitzky, M., Schmidt, F. L., & Rynes, S. L. , 2003).

Key performance indicators (KPIs) include **return on CSR investments, cost-benefit analysis (CBA), economic value added (EVA)**, and **market share changes** attributable to CSR programs (Porter, M. E., & Kramer, M. R, 2011). For instance, Unilever's Sustainable Living Plan, which integrates CSR into business strategy, reported increased brand growth in products with sustainable branding compared to their conventional counterparts (Unilever, 2019).

Further, the economic evaluation should not only consider direct financial returns but also **long-term value creation**, including reduced regulatory risks, increased access to capital, and enhanced employee productivity (Epstein, 2008).

2.5. Integrative Evaluation Frameworks

While evaluating CSR initiatives across the TBL dimensions is insightful, the integration of these aspects truly captures the holistic value of CSR. The **Balanced Scorecard** approach proposed by Epstein (2008) is a valuable tool in this regard. It incorporates both **financial** and **non-financial** performance metrics across strategic perspectives such as customer, internal processes, and learning and growth (Epstein, 2008).

This integrative framework allows managers to **track CSR outcomes in real time**, identify synergies between social, environmental, and economic initiatives, and make evidence-based decisions to refine strategies. Furthermore, CSR dashboards, Key Performance Indicator (KPI) matrices, and integrated reporting tools are increasingly used by organizations to visualize and communicate their CSR performance across stakeholders.

Conclusion:

A comprehensive evaluation of CSR initiatives through the social, environmental, and economic lenses is essential for understanding their actual impact and ensuring alignment with sustainability objectives. While each dimension requires distinct tools and approaches, their integration through strategic frameworks provides a more nuanced and actionable understanding. Organizations that master this integration are better positioned to achieve not only compliance and goodwill but also long-term competitiveness and innovation

3. Challenges and Limitations in Measuring CSR Effectiveness:

Despite the increasing availability of frameworks and indicators, measuring CSR effectiveness remains a complex task fraught with methodological and practical challenges.

One key challenge is the lack of standardization in CSR measurement. Organizations differ in how they define CSR, select indicators, and report outcomes, making comparisons across firms and industries difficult (Perrini, F., & Tencati, A., 2006). While initiatives such as the GRI, Sustainability Accounting Standards Board (SASB), and Integrated Reporting Framework (IIRC) aim to harmonize reporting standards, inconsistencies persist.

Another major issue is attribution. It is often difficult to isolate the effects of CSR initiatives from other external factors. For instance, improvements in community health may be due to multiple actors, including government programs and NGOs, not solely the company's CSR efforts. This complicates efforts to demonstrate causality and direct impact (Clarkson, 1995).

Furthermore, time lag effects can obscure the evaluation process. Many CSR initiatives such as education programs or environmental conservation require long-term commitment before meaningful results become visible. Short-term evaluation cycles may therefore fail to capture their true value.

Finally, subjectivity and stakeholder bias play a role in CSR evaluation. Different stakeholders may prioritize different outcomes, leading to conflicting assessments of effectiveness. For example, shareholders may value financial returns, while communities focus on equity and inclusion. As a result, incorporating diverse stakeholder perspectives is crucial, albeit challenging (Freeman, 1984).

To address these issues, scholars recommend adopting mixed-method approaches, combining quantitative data (e.g., KPIs, ESG scores) with qualitative insights (e.g., interviews, focus groups, narratives) to obtain a comprehensive view of CSR impact (Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S., 2014).

3.1. Lack of Standardization in CSR Measurement

One of the most pervasive obstacles in evaluating the effectiveness of Corporate Social Responsibility (CSR) lies in the absence of universally accepted standards and metrics. Organizations adopt varying definitions of CSR based on their sector, size, stakeholder priorities, and cultural contexts. This divergence influences the selection of indicators and reporting formats, making inter-organizational comparisons difficult (Perrini, F., & Tencati, A., 2006). While several initiatives such as the Global Reporting Initiative (GRI), the

Sustainability Accounting Standards Board (SASB), and the International Integrated Reporting Council (IIRC) have made strides in offering standardized frameworks, the uptake and implementation of these guidelines remain inconsistent (KPMG, 2020). Moreover, companies often engage in selective disclosure highlighting favorable outcomes while omitting negative externalities thereby undermining transparency and accountability (Gray, R., Owen, D., & Adams, C. , 1996)

3.2. Attribution and Causality Dilemmas

Another methodological difficulty in assessing CSR effectiveness is the attribution problem. Disentangling the specific impact of CSR initiatives from the broader socioeconomic and environmental context is inherently challenging. Many outcomes, such as community well-being or environmental sustainability, are co-produced by multiple stakeholders including governments, NGOs, and other private entities (Clarkson, 1995; Aguinis, H., & Glavas, A., 2012). For example, a decrease in local unemployment might be influenced by municipal policies or economic cycles rather than solely by a company's job creation efforts. This lack of control over external variables hampers the establishment of causality, weakening the evidentiary basis for CSR claims (Epstein, M. J., & Buhovac, A. R., 2014).

3.3. Temporal Gaps and Long-Term Impact

CSR initiatives often target systemic changes such as educational reform, biodiversity conservation, or climate resilience that require a long time horizon to manifest measurable benefits. However, organizational performance reviews and CSR reporting are frequently conducted on an annual basis, creating a temporal mismatch (Brammer, S., Millington, A., & Rayton, B, 2007). This short-termism may prompt companies to prioritize initiatives that yield quick wins over those offering sustained impact, leading to a misrepresentation of effectiveness. Longitudinal studies and impact assessment models that incorporate delayed outcomes are therefore essential for capturing the full value of CSR interventions (Porter, M. E., & Kramer, M. R, 2011)

3.4. Stakeholder Subjectivity and Conflicting Interests

Evaluating CSR effectiveness is further complicated by the diverse, and sometimes conflicting, expectations of stakeholders. While shareholders may be concerned primarily with financial returns and risk management, employees may prioritize workplace equity and professional development. Meanwhile, local communities may focus on environmental protection and social justice (Freeman, 1984; Donaldson, T., & Preston, L. E, 1995). These differing priorities introduce subjectivity into the evaluation process, as effectiveness can be judged differently depending on whose perspective is considered. For instance, a company's decision to reduce its carbon footprint by automating processes might be praised by environmental groups but criticized by labor unions for potential job losses. As such, incorporating inclusive stakeholder engagement mechanisms such as participatory evaluations, multi-stakeholder dialogues, and community scorecards can enrich the assessment process while ensuring legitimacy (Greenwood, 2007).

3.5. Limitations of Quantitative Metrics

The predominant reliance on quantitative performance indicators such as Key Performance Indicators (KPIs), Environmental, Social, and Governance (ESG) scores, and return on CSR investment may provide a narrow view of impact. While these tools offer comparability and simplicity, they often fail to capture the nuanced and transformative dimensions of CSR, such as empowerment, ethical governance, or cultural change (Wood, 1991). Additionally, companies may manipulate data or game metrics to improve ratings without genuine commitment to social values (Chatterji, A. K., Levine, D. I., & Toffel, M. W., 2009). As a result, a growing body of literature advocates for the integration of qualitative methods such as ethnographic research, stakeholder interviews, case studies, and narrative reporting to present a more holistic and context-sensitive understanding of CSR (Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S., 2014; Yin, 2018)

3.6. Towards Mixed-Method Approaches

To overcome these multifaceted challenges, scholars and practitioners increasingly recommend mixed-methods approaches that blend quantitative rigor with qualitative depth. This integrative strategy allows for triangulation of findings, offering more robust and credible assessments of CSR effectiveness. For instance, quantitative data on reduced emissions can be complemented with interviews from community members to understand their perceived health improvements. Similarly, case studies can elucidate the mechanisms through which CSR interventions produce change, thereby addressing issues of causality and attribution (Patton, 2015). Moreover, the use of tools like Theory of Change (ToC) and Social Return on Investment (SROI) can further enhance strategic alignment and impact measurement (Nicholls, J., Lawlor, E., Neitzert, E., & Goodspeed, T. , 2012)

Conclusion:

Assessing the effectiveness of CSR programs is essential for validating their strategic value and ensuring their alignment with sustainable development objectives. This section has outlined the primary indicators and metrics used to evaluate CSR, examined the three sustainability dimensions in depth, and discussed the challenges that often hinder accurate measurement. Despite these limitations, evolving frameworks and stakeholder engagement strategies offer opportunities to improve CSR assessment practices. Ultimately, effective evaluation not only strengthens accountability but also enhances the credibility and transformative potential of CSR initiatives in driving sustainable development.

Section 02: Methodological Approaches to CSR Evaluation

Introduction:

Evaluating the real-world impacts of Corporate Social Responsibility (CSR) initiatives requires the application of rigorous, context-sensitive methodological approaches. Given the complexity of CSR activities and their multi-dimensional nature, assessment must go beyond surface-level reporting and integrate both quantitative and qualitative data. This section explores the various methodologies used to evaluate CSR, including measurement techniques, analytical frameworks, and stakeholder engagement practices.

This section discusses the dual approaches of quantitative and qualitative assessments, highlights established frameworks such as Social Return on Investment (SROI), Environmental, Social, and Governance (ESG) metrics, and broader impact assessment models. Furthermore, it underscores the critical role of stakeholder perception in shaping the meaning and effectiveness of CSR outcomes.

1. Quantitative and Qualitative Assessment Techniques :

CSR evaluation benefits significantly from integrating both quantitative and qualitative methodologies. Each approach offers unique insights, and their combined use ensures a comprehensive understanding of CSR outcomes.

Quantitative Techniques: These methods involve numerical and statistical data to measure CSR performance. They include standardized indicators, benchmarking, surveys, and financial analyses. Common tools are carbon accounting, cost-benefit analysis, and CSR performance indices (e.g., Dow Jones Sustainability Index, MSCI ESG Ratings). For instance, Margolis and Walsh (2003) emphasized the importance of correlating CSR activities with financial performance metrics such as Return on Assets (ROA) and Return on Equity (ROE) (Margolis, J. D., & Walsh, J. P., 2003).

Quantitative methods offer scalability and comparability, allowing companies to benchmark performance across sectors. However, these methods often struggle to capture nuanced social or ethical outcomes.

Qualitative Techniques: These involve narrative and interpretive analysis through interviews, focus groups, case studies, and content analysis. They aim to understand stakeholder perceptions, organizational culture, and social changes resulting from CSR initiatives. According to Yin (2018), case studies are especially useful for exploring complex, context-dependent phenomena like CSR in-depth (Yin, 2018).

Qualitative methods reveal the deeper meanings and motivations behind CSR actions and provide rich, contextual insights. However, they can be time-consuming and subject to researcher bias.

Mixed-method Approaches: Scholars increasingly recommend combining both approaches for a holistic analysis. For example, Bebbington, Unerman, and O'Dwyer (2014) argue that mixed methods bridge the gap between statistical generalization and interpretive depth,

enhancing the robustness of CSR evaluations (Bebbington, J., Unerman, J., & O'Dwyer, B., 2014).

2. Evaluation Frameworks: SROI, ESG Metrics, and Impact Assessment Models:

To standardize CSR assessment, several frameworks have emerged that provide structure and consistency in evaluating impact. Among these, Social Return on Investment (SROI), ESG metrics, and various impact assessment models are widely recognized.

Social Return on Investment (SROI): SROI is a comprehensive framework that monetizes the social value created by CSR initiatives. It calculates the ratio of social impact to investment, enabling organizations to demonstrate tangible returns on their CSR spending. For example, a ratio of 3:1 means that for every dollar invested, three dollars of social value were generated (Nicholls, J., Lawlor, E., Neitzert, E., & Goodspeed, T. , 2012).

The SROI methodology involves six stages: establishing scope, identifying stakeholders, mapping outcomes, evidencing outcomes and giving them a value, calculating the SROI, and reporting. It combines qualitative stakeholder engagement with quantitative financial valuation, offering a balanced view of impact (Millar, R., & Hall, K., 2013).

ESG Metrics: ESG (Environmental, Social, and Governance) metrics are used by investors and companies to assess non-financial performance. These include data on energy efficiency, board diversity, labor practices, and anti-corruption policies. ESG scores, calculated by agencies like Sustainalytics and MSCI, influence investment decisions and reflect how well a company aligns with sustainable and ethical practices (Eccles, R. G., & Klimenko, S., 2019).

Impact Assessment Models: Broader impact models, such as Theory of Change (ToC) and Logic Models, provide structured frameworks for evaluating inputs, activities, outputs, outcomes, and long-term impacts. These models are particularly useful in CSR contexts where causal relationships and pathways need to be clearly articulated (Weiss, 1995).

Impact assessments also incorporate environmental tools like Life Cycle Assessment (LCA), which examines the ecological impact of a product or service across its lifecycle (Finkbeiner, M., Inaba, A., Tan, R. B. H., Christiansen, K., & Klüppel, H. J. , 2006). These tools contribute to a more precise understanding of CSR's environmental implications.

3. The Role of Stakeholder Perception and Engagement in CSR Evaluation:

Corporate Social Responsibility (CSR) has evolved from philanthropic endeavors to strategic imperatives integrated into core business models. Central to this evolution is the recognition of stakeholders not only as beneficiaries of CSR activities but also as active participants in shaping, implementing, and evaluating CSR strategies. Effective stakeholder perception and engagement play a critical role in the success, legitimacy, and sustainability of CSR efforts.

Understanding Stakeholder Perception in CSR

Stakeholder perception refers to how various stakeholder groups including employees, customers, local communities, investors, regulators, and NGOs interpret and evaluate a company's CSR initiatives. These perceptions are foundational to organizational legitimacy, reputation, and social license to operate. According to Freeman's stakeholder theory (1984), businesses must manage relationships with all stakeholders, not solely shareholders, to ensure long-term survival and ethical governance (Freeman, 1984).

Empirical tools such as structured surveys, in-depth interviews, and focus group discussions are commonly used to capture these perceptions. These instruments reveal critical insights into stakeholders' levels of trust, perceived fairness, and satisfaction with CSR practices (Aguinis, H., & Glavas, A., 2012). For instance, customer trust may increase if a company is perceived as environmentally responsible, which, in turn, may enhance brand loyalty and customer retention (Du, S., Bhattacharya, C. B., & Sen, S., 2010).

Participatory and Inclusive CSR Evaluation

Moving beyond perception, inclusive or participatory evaluation involves actively engaging stakeholders in the CSR assessment process. This method democratizes CSR evaluation by incorporating real-world experiences and values, thus enhancing the credibility, relevance, and impact of CSR strategies. According to Estrella and Gaventa (1998), participatory evaluation fosters mutual accountability and co-learning between organizations and their stakeholders (Estrella, M., & Gaventa, J., 1998).

For example, involving local community leaders in evaluating educational or healthcare programs can reveal unforeseen outcomes, such as access inequalities or cultural mismatches. Participatory methods ensure that CSR efforts address actual needs rather than presumed ones, making CSR more responsive and context-sensitive (Reed, 2008)

Materiality Analysis: Aligning Business and Stakeholder Priorities

Materiality analysis is a strategic tool that helps organizations determine which CSR issues matter most to their stakeholders and the business itself. As defined by the Global Reporting Initiative (GRI), (2021), materiality ensures that CSR reports and strategies focus on topics of high relevance and impact. It reflects a duality: what is significant for the organization's financial success and what is important to stakeholders from a social and environmental perspective.

The process typically involves stakeholder mapping, issue prioritization matrices, and external validation through stakeholder engagement. For instance, climate change mitigation may be a top priority for investors and NGOs but less so for employees; materiality analysis helps balance these differing concerns and communicate them transparently in CSR disclosures (AccountAbility., 2018).

Enhancing Feedback Loops and Organizational Learning

Effective stakeholder engagement strengthens feedback loops between organizations and their stakeholders. Regular consultation, dialogue, and feedback collection contribute to continuous CSR improvement and deeper organizational learning (Greenwood, 2007). Feedback mechanisms not only correct course when CSR initiatives fail to meet stakeholder expectations but also foster innovation in sustainability practices.

For example, employee suggestions might lead to improvements in workplace safety programs, while community feedback could inspire new environmental partnerships. These iterative interactions build trust, enhance stakeholder loyalty, and contribute to the long-term sustainability of CSR efforts (Maak, 2007)

Challenges in Stakeholder Engagement

Despite its benefits, stakeholder engagement in CSR evaluation is not without challenges. Conflicting interests among stakeholders can lead to negotiation deadlocks or diluted strategies. Power imbalances can silence marginalized groups, particularly in community settings where corporate actors hold significant economic influence. According to Frooman (1999), stakeholder strategies are shaped by resource dependencies and power dynamics, necessitating thoughtful and equitable engagement processes (Frooman, 1999).

To address these issues, companies must adopt inclusive practices that prioritize transparency, equality, and responsiveness. Tools such as stakeholder salience mapping (Mitchell, R. K., Agle, B. R., & Wood, D. J., 1997) and multi-stakeholder forums can help navigate complexity and ensure balanced representation in CSR evaluation.

Incorporating stakeholder perception and engagement into CSR evaluation enriches the process, aligning it more closely with social realities and strategic priorities. Stakeholders not only influence the legitimacy and effectiveness of CSR but also contribute valuable insights that enhance organizational responsiveness and learning. Despite inherent challenges, a participatory, materiality-informed approach to stakeholder engagement can significantly elevate the quality and sustainability of CSR programs.

Conclusion:

Methodological rigor is essential for ensuring that CSR initiatives are not only well-intentioned but also effective, accountable, and aligned with sustainable development. This section has outlined key quantitative and qualitative techniques, as well as prominent evaluation frameworks like SROI, ESG metrics, and impact models. Additionally, it has highlighted the central role of stakeholder perception and engagement in shaping meaningful CSR evaluations. By adopting integrated, participatory, and evidence-based approaches, organizations can better assess, improve, and communicate the real impact of their CSR commitments.

Section 03: Impact Analysis: CSR's Contribution to Sustainable Development

Introduction:

Corporate Social Responsibility (CSR) has emerged as a strategic tool for addressing sustainability challenges in the global economy. Beyond philanthropy and ethical compliance, CSR plays a critical role in shaping corporate strategies that influence economic growth, social cohesion, and environmental stewardship. This section explores the tangible contributions of CSR to sustainable development by analyzing its influence on economic competitiveness and growth, as well as its role in enhancing social well-being and environmental sustainability.

1. The Influence of CSR on Economic Growth and Corporate Competitiveness:

Corporate Social Responsibility (CSR) has evolved beyond traditional philanthropic activities into a strategic approach that enhances both firm-level performance and national economic development. By integrating CSR into core business operations, companies not only address social and environmental challenges but also unlock pathways to growth and innovation. This dual impact reflects what Porter and Kramer (2006) conceptualize as "Creating Shared Value" (CSV), where business success is inherently linked to social progress (Porter, M. E., & Kramer, M. R., 2006). Firms that address societal needs such as through sustainable supply chains, inclusive employment practices, or eco-friendly production can simultaneously reduce costs, build consumer trust, and develop new markets, thereby achieving a competitive edge.

1.1. Enhanced Brand Image and Consumer Trust

A strong CSR orientation significantly improves a company's brand image and strengthens consumer loyalty. In an age where consumers are increasingly value-driven, ethical branding acts as a key differentiator. Du, Bhattacharya, and Sen (2010) emphasize that CSR influences customer perceptions and purchasing behavior, especially in markets where ethical consumption is growing (Du, S., Bhattacharya, C. B., & Sen, S., 2010). Their research suggests that well-communicated CSR initiatives lead to higher levels of trust, emotional attachment, and advocacy among customers. This is supported by Smith (2003), who argues that companies practicing socially responsible marketing are better positioned to command customer loyalty, even at premium pricing (Smith, 2003).

1.2. CSR and Investment Attraction

The integration of CSR and ESG (Environmental, Social, and Governance) criteria has become a crucial factor in attracting investment. Investors increasingly consider sustainability indicators in their decision-making processes. Eccles, Ioannou, and Serafeim (2014) find that companies with high sustainability scores demonstrate superior financial performance over the long term and face fewer capital constraints (Eccles, R. G., Ioannou, I., & Serafeim, G., 2014). These firms also exhibit better risk management and governance structures, making them more attractive to long-term investors such as pension funds and sovereign wealth funds. The rise of sustainable finance, including green bonds and ESG funds, underscores the

growing synergy between corporate responsibility and capital markets (Clark, G. L., Feiner, A., & Viehs, M. , 2015).

1.3. Operational Efficiency and Technological Innovation

CSR can serve as a catalyst for operational improvements and technological innovation. Environmentally responsible practices such as energy conservation, water management, and waste minimization not only mitigate ecological impacts but also reduce operating costs. Hart and Milstein (2003) argue that the sustainability agenda encourages companies to rethink and redesign their production processes, often leading to innovative products and services. Moreover, cleaner production techniques and sustainable design contribute to resource efficiency, product differentiation, and cost competitiveness (Hart, S. L., & Milstein, M. B. , 2003). Examples include Procter & Gamble's water-saving detergents and Unilever's eco-friendly packaging, which emerged from their CSR commitments.

1.4. Human Capital Development and Talent Retention

Organizations with robust CSR policies tend to attract and retain top talent, particularly among Millennials and Generation Z, who prioritize purpose-driven careers. Turker (2009) notes that when employees are more engaged and satisfied in workplaces that demonstrate ethical leadership and social responsibility (Turker, 2009). A socially responsible corporate culture enhances internal trust, boosts morale, and fosters organizational commitment, leading to higher productivity and lower turnover rates. Furthermore, CSR initiatives focused on employee well-being such as diversity programs, professional development, and mental health support enhance the employer brand and contribute to long-term organizational resilience (Aguinis, H., & Glavas, A., 2012).

1.5. Local Economic Development and Social Impact

CSR extends its influence beyond corporate boundaries to positively impact local communities. By investing in areas such as education, healthcare, infrastructure, and small enterprise development, corporations play a direct role in regional socio-economic growth. Visser (2010) highlights the role of CSR in building community capacity and creating inclusive economic opportunities (Visser, 2010). For instance, multinational companies operating in rural regions often establish vocational training centers or microfinance programs, which foster entrepreneurship and reduce dependency. These localized initiatives strengthen community relations, improve quality of life, and stimulate sustainable development.

CSR is no longer a peripheral activity but a central strategy for achieving long-term business success and economic growth. From enhancing brand value and attracting investment to fostering innovation and contributing to societal development, CSR serves as a multifaceted tool for competitiveness and sustainability. By embedding social and environmental concerns into their core strategy, firms can create shared value and contribute meaningfully to a more inclusive and resilient global economy.

2. CSR's Role in Enhancing Social Well-being and Environmental Sustainability:

The social and environmental dimensions of CSR are fundamental to its alignment with sustainable development goals (SDGs). Companies are increasingly expected to act not only as economic agents but also as stewards of social justice and ecological balance.

Social Inclusion and Equity: CSR initiatives addressing inequality, education, gender equity, and community development directly contribute to inclusive growth. Carroll and Shabana (2010) argue that CSR, when rooted in stakeholder theory, promotes social justice by recognizing and responding to the needs of diverse stakeholder groups (Carroll, A. B., & Shabana, K. M, 2010).

Improving Public Health and Education: CSR programs targeting public health (e.g., vaccination drives, sanitation projects) and education (e.g., scholarships, digital literacy campaigns) create long-term social value. According to Bhattacharya et al. (2008), CSR can build social capital and improve human development indices in under-resourced communities (Bhattacharya, , Sen, , & Korschun, , 2008).

Environmental Protection: CSR promotes environmental sustainability through initiatives like carbon footprint reduction, water conservation, renewable energy adoption, and sustainable supply chains. Life Cycle Assessments (LCAs) and ISO 14001 standards guide companies in managing environmental impact (Delmas & Toffel, 2008).

Alignment with the SDGs: Many corporations align their CSR activities with the United Nations' Sustainable Development Goals (SDGs), especially goals related to climate action (SDG 13), quality education (SDG 4), gender equality (SDG 5), and decent work and economic growth (SDG 8). This alignment ensures that CSR efforts contribute meaningfully to global priorities (Compact., 2018).

Strengthening Community Relations: CSR activities such as stakeholder engagement, participatory governance, and local partnerships foster trust and cooperation between businesses and communities. This leads to conflict reduction and long-term collaboration, essential for sustainable development (Freeman, R. E., Harrison, J. S., & Wicks, A. C, 2004).

Climate Action and Biodiversity: Advanced CSR programs also focus on large-scale climate adaptation and biodiversity conservation, collaborating with NGOs, governments, and international organizations. Examples include reforestation projects, green building initiatives, and circular economy strategies (Boiral, 2007).

Conclusion:

CSR is not merely a corporate obligation; it is a strategic enabler of sustainable development. This section highlighted how CSR contributes to economic competitiveness by driving innovation, enhancing reputation, and improving employee engagement. Simultaneously, CSR plays a pivotal role in fostering social well-being and protecting the environment. As companies continue to integrate CSR into their core business strategies, their potential to generate value for both business and society will be crucial in achieving the Sustainable Development Goals and ensuring a more equitable, resilient, and sustainable future.

Conclusion of Chapter 2:

The second chapter has examined the evaluation of Corporate Social Responsibility (CSR) initiatives through three critical dimensions: effectiveness, methodological approaches, and impact analysis. The assessment of CSR programs revealed the necessity for clear, multidimensional indicators that reflect social, environmental, and economic outcomes. While traditional performance metrics remain relevant, CSR demands innovative tools to measure intangible and long-term value creation.

The second section explored methodological approaches, highlighting the complementarity between qualitative and quantitative methods. Frameworks such as Social Return on Investment (SROI), ESG (Environmental, Social, and Governance) metrics, and participatory impact assessment models offer robust platforms for evaluating CSR initiatives. Stakeholder perceptions were also emphasized as a pivotal element in understanding CSR's actual and perceived value.

Finally, the impact analysis underscored CSR's strategic contribution to sustainable development. At the economic level, CSR fosters innovation, competitiveness, and long-term financial performance. Socially, it promotes equity, community well-being, and inclusion. Environmentally, CSR supports mitigation efforts, conservation, and ecological resilience.

In conclusion, the integration of rigorous evaluation methodologies and impact-oriented CSR strategies is essential for aligning business objectives with the Sustainable Development Goals (SDGs). Companies that embrace CSR not as an obligation but as a value-generating strategy are more likely to achieve enduring success while contributing meaningfully to global sustainable development.

CHAPTER THREE:

Empirical Investigation of
SONELGAZ's CSR Programs and
Their Impact on Sustainable
Development.

Introduction of chapter three:

Chapter Three constitutes the empirical foundation of this thesis, offering a comprehensive investigation into the Corporate Social Responsibility (CSR) programs of SONELGAZ and their contribution to sustainable development. Building upon the theoretical framework and literature review established in earlier chapters, this section shifts the focus to practical application, exploring how CSR is both implemented at the institutional level and perceived by employees within the company.

The chapter is structured in three core sections. The first presents an in-depth analysis of SONELGAZ's CSR orientation, including its historical evolution, governance structure, benchmarking against regional utilities, and alignment with national and international sustainability frameworks such as the Sustainable Development Goals (SDGs) and the Paris Climate Agreement. This institutional review also considers media and stakeholder perspectives, offering a multi-angled understanding of CSR implementation and reputation.

The second section outlines the research methodology adopted for the study. A mixed-methods design was employed, combining thematic document analysis and quantitative survey data from a sample of SONELGAZ employees. This section details the research design, sampling strategy, data collection tools, SPSS statistical analysis, thematic coding procedures, and ethical considerations. The dual-method approach ensures methodological triangulation and enhances the reliability and validity of the findings.

The final section presents the empirical results and their strategic interpretation. Organized around the study's four sub-questions and corresponding hypotheses, it integrates descriptive statistics, hypothesis testing, and qualitative document insights. Key findings are summarized in tables and interpreted with reference to SONELGAZ's institutional commitments and employee expectations.

By integrating both institutional and employee-level perspectives, this chapter offers a multidimensional analysis of CSR effectiveness at SONELGAZ, establishing the foundation for the recommendations and theoretical contributions outlined in the final chapter.

Section 01: Corporate Social Responsibility at SONELGAZ: Strategic Orientation and Implementation

Introduction:

In recent decades, the concept of Corporate Social Responsibility (CSR) has gained considerable traction as organizations face mounting pressure to operate responsibly in relation to social, environmental, and economic dimensions. In parallel, sustainable development has emerged as a global imperative, calling for a balance between economic growth, social equity, and environmental preservation. Within this context, energy companies especially those operating in public service sectors carry a significant responsibility due to their profound impact on national development, environmental sustainability, and societal well-being. As Algeria's primary energy provider, SONELGAZ holds a central role not only in meeting the country's energy demands but also in contributing to broader sustainable development objectives. This section explores SONELGAZ's approach to CSR by examining its strategies, initiatives, and commitments toward sustainability.

By analyzing SONELGAZ's CSR practices, this section aims to shed light on the effectiveness of its contributions to sustainable development, the extent to which it integrates the three pillars of sustainability economic viability, social responsibility, and environmental stewardship and the challenges it faces in maintaining this balance in a complex and evolving energy landscape.

1. SONELGAZ's Presentation:

1.1. Company profile:

"TOGETHER FOR MORE ENERGY" is the slogan of SONELGAZ, Algeria's historic operator in the field of energy supply, both electricity and gas.

Present throughout the country, even in the most remote areas, with an electricity penetration rate of over 99% and a gas penetration rate of over 60%, the highest rates in the world; SONELGAZ has contributed to improving the quality of life of Algerian families, enabling them to enter the modern world.

Key figures:

Table 1: Key Figures

	Electricity	Gas
Production	89 996 GWh	/
Installed capacity	25 341 MW	/
Length of transport network	34 413 km	24 281 km
Length of distribution network	396 801 km	160 430 km
Number of clients	11 871 600	7 732 704

Source: SONELGAZ's official website.

The objectives of the SONELGAZ Group are as follows:

On the one hand, in accordance with Decree No. 026195 of 01/06/2002, SONELGAZ has the following objectives

- Production and marketing of electricity and gas in Algeria and abroad;
- Transportation of gas for the national and international markets;
- Distribution and marketing of gas by pipeline in Algeria;
- Development and provision of energy services;
- Research and development of new energy sources;
- Develop energy-related activities;
- Become a shareholder company;
- Become a leader in energy supply and equipment.

1.2. The history of SONELGAZ :

From the days of EGA, the historic electricity and gas supplier, to the emergence of a leading national energy group, recognized and known throughout the African continent and the Mediterranean basin, SONELGAZ has written one of the most beautiful pages in Algeria's economic and social development over the last fifty years.

In **1964**, SONELGAZ was created. It replaced EGA (Electricity and Gas of Algeria) following its dissolution.

In **1983**, fourteen years after its creation, SONELGAZ underwent its first restructuring. It created five subsidiaries dedicated to specialized works and a production unit: KAHRIF (rural electrification), KAHRAKIB (electrical infrastructure and installations), KANAGHAZ (gas networks), INERGA (civil engineering), ETTERKIB (industrial assembly) and AMC (production of meters and measurement and control equipment).

1995: SONELGAZ becomes a public industrial and commercial company (EPIC).

2002, EPIC was transformed into a holding company of joint-stock company.

2004, The SONELGAZ Industrial Group is born: an industrial group organization by transforming its entities in charge of the basic activities into subsidiaries: - Electricity Production (SPE), Electricity Transmission (GRTE), Electricity System Control (OS), Gas Transmission (GRTG), - Electricity and Gas Distribution of Algiers (SDA), Centre (SDC), East (SDE) and finally West (SDO).

2009, Completion of the restructuring process: SONELGAZ adopts a new organization: a group comprising 33 subsidiaries and 6 directly-owned companies.

2011, The Holding Company: SONELGAZ Spa is now organized as a "HOLDING COMPANY" without creating a new legal entity. The SONELGAZ holding company and its subsidiaries form a group called "Group SONELGAZ".

1.3. SONELGAZ reorganization:

In April 2022 SONELGAZ announced a new reorganization by reducing the number of its wholly owned subsidiaries from 26 to 14 in order to: "rationalize spending, achieve cost synergies, increase the efficiency of the various business lines and pool all resources to build more robust entities, value-added creators capable of ensuring their long-term economic development."

Today, the SONELGAZ Group consists of 14 subsidiaries, managed directly by the holding company and 12 companies with third parties.

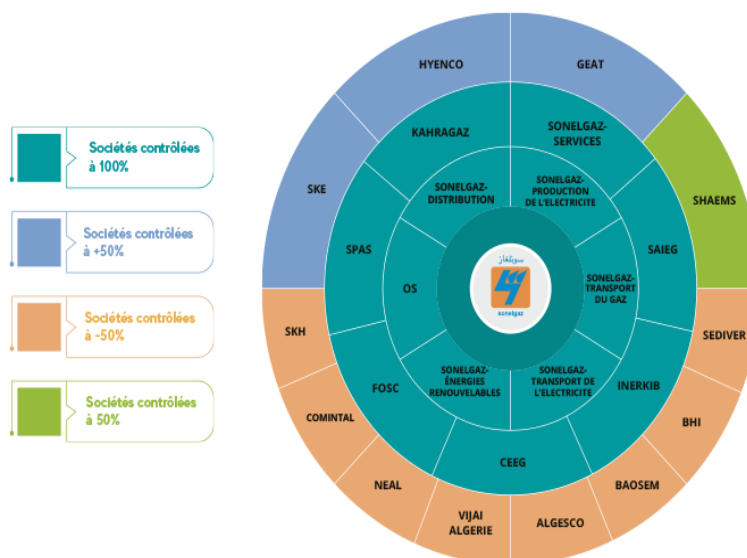


Figure 5: SONELGAZ Reorganization

Source: SONELGAZ's official web site.¹²

1.4. The general organization of the group:

For an effective management, the team doubted one:

a. Executive Committee:

Responsible for strategy and related corporate policies under the chairmanship of the CEO of the SONELGAZ Group, it is made up of the strategic of the Group's executive management and the core business, the work and the core business, the work and the company.

The Executive Committee meets every 15 days in order to:

- To review and approve the policies that governs the operational activities of the parent company and applied to the subsidiaries.
- Approve the budgets, balance sheets (medium and short term) of the General Directorates and the Management of SONELGAZ.
- Examination of dossiers prior to their presentation to the Board of Directors and/or the General Meeting of SONELGAZ.

b. The General Assembly:

¹² <https://www.sonelgaz.dz/fr/category/qui-sommes-nous>

It is composed of representatives of the State, namely:

- The Minister of Energy.
- The Minister of Finance.
- The Minister responsible for State participation.
- The representative of the Presidency of the Republic.
- The head of the planning institution.

The General Assembly, chaired by the Minister of Energy, meets once a year on months to decide, among other things, on General Activity programs.

- The auditor's reports.
- The social balance sheet and the profit and loss accounts.
- The development, increase and reduction of social capital.

The General Manager of SONELGAZ attends these meetings.

c. The Board of Directors:

Its members are:

- Representatives of the Ministries of Energy, Finance, Trade, the State, Local Authorities and the Environment.
- Representatives of the State, local authorities and the environment.
- Two representatives of the employees.
- CEO of SONELGAZ
- CEOs of the production, transmission and distribution subsidiaries: GAS and ELECTRICITY.

The Board of Directors, chaired by the CEO of SONELGAZ, meets four times a year to examine and approve the following, among others:

- The budget, social compensation projects and profit and loss accounts.
- Bank competitions and financing.
- The remuneration of senior managers.

d. The Audit Committee:

This is an independent body whose main task is to declare the quality of management, independently of the opinion of the Group's Chief Executive Officer. Its creation reflects the desire to be a transparent team in the management processes of "SONELGAZ".

It is composed of 04 members appointed by the Board of Directors. It ensures the adequacy of the accounting methods adopted, by reviewing the budget and the Group's internal audit plan.

e. Group Coordination Committee:

Its purpose is to coordinate the joint activities of all the Group's subsidiaries. It holds at least one meeting per quarter for quarterly dashboards and major budgets and investments

1.5. SONELGAZ Maps Out Its Strategy Towards CSR and Sustainable Development:

SONELGAZ integrates corporate social responsibility (CSR) and sustainable development into its strategic objectives, recognizing their importance for Algeria's economic, social, and environmental progress. This approach aligns with national priorities, particularly the Renewable Energy Development Program, which aims to achieve 22 GW of renewable capacity by 2030.¹³

In pursuit of these goals, SONELGAZ has signed 19 contracts with local and international companies for the construction of 20 solar photovoltaic (PV) plants across Algeria, totaling a capacity of 3 GW. These projects are expected to significantly reduce natural gas consumption, saving an estimated 600 to 800 million cubic meters of gas per gigawatt produced.¹⁴

Beyond environmental initiatives, SONELGAZ actively engages in social and economic development. The company has implemented programs aimed at improving access to electricity in remote areas, thereby enhancing the quality of life and economic opportunities for underserved communities. Additionally, SONELGAZ invests in vocational training and capacity-building programs to develop local expertise in the energy sector, fostering employment and supporting the national economy.

Furthermore, SONELGAZ has entered into cooperation agreements with the Renewable Energy Development Center (CDER)¹⁵ to advance renewable energy initiatives, including the exploration of green hydrogen production¹⁶. These endeavors underscore SONELGAZ's dedication to reducing fossil fuel dependency and promoting sustainable energy solutions in Algeria.

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- ¹³ Enerdata. (2024, March 15). *SONELGAZ signs deals for the development of 3 GW of solar capacity in Algeria*. Enerdata. <https://www.enerdata.net/publications/daily-energy-news/sonelgaz-signs-deals-development-3-gw-solar-capacity-algeria.html> consulted: April 30, 2025 at 11 Am
 - ¹⁴ PV Magazine. (2024, March 15). *Algeria's SONELGAZ awards 3 GW of solar projects*. PV Magazine. <https://www.pv-magazine.com/2024/03/15/algerias-sonelgaz-awards-3-gw-of-solar-projects/> consulted: April 30, 2025 at 11 Am
 - ¹⁵ SolarQuarter. (2024, March 15). *SONELGAZ and Renewable Energy Development Center sign cooperation agreements in Algeria*. SolarQuarter. <https://solarquarter.com/2024/03/15/sonelgaz-and-renewable-energy-development-center-sign-cooperation-agreements-in-algeria/> consulted: April 30, 2025 at 11 Am
 - ¹⁶ Net Zero Circle. (2024, March 20). *SONELGAZ and Renewable Energy Development Center forge ahead with green hydrogen in Algeria*. Net Zero Circle. <https://www.netzerocircle.org/news/sonelgaz-and-renewable-energy-development-center-forge-ahead-with-green-hydrogen-in-algeria> consulted: April 30, 2025 at 11 Am

2. Overview of SONEGGAZ: Corporate Mission, Vision, and Sustainability Commitments:

2.1. Historical Evolution of CSR at SONEGGAZ:

SONEGGAZ (Société Nationale de l’Électricité et du Gaz) is Algeria’s state-owned utility company responsible for the production, transmission, and distribution of electricity and natural gas. Established in 1969 following the dissolution of Electricité et Gaz d’Algérie (EGA), Over the years, the company underwent major structural reforms becoming a public industrial company in 1995, a joint-stock company in 2002, and later a holding group in 2011. These changes enhanced its operational flexibility and set the stage for the formal institutionalization of Corporate Social Responsibility (CSR). SONEGGAZ has grown into a large industrial group composed of numerous subsidiaries and joint ventures, employing over 91,000 people across the national territory (Dahou & Marfoua, 2021). Historically, its mission has been centered on providing essential energy services to the Algerian population, playing a crucial role in national development and energy security.

Historically described as “sensible à son environnement, consciente de sa dimension sociale,” SONEGGAZ adopted a proximity-based, citizen-focused approach to community support, including the sponsorship of cultural and sports initiatives (sonelgaz.dz). By the 2010s, CSR began transitioning from implicit social obligations to explicit strategy. A major milestone came in 2012 with the creation of the Fonds des Œuvres Sociales et Culturelles (FOSC), a subsidiary dedicated to employee and community welfare. FOSC now oversees dozens of healthcare centers, nurseries, housing aid programs, and recreational services for employees and retirees, making it a central actor in SONEGGAZ’s social impact.

Table 2: Historical Evolution of CSR at SONEGGAZ

Period	Key Milestones	Impact on CSR Development
1969–2000s	Founded post-independence; nationwide utility monopoly; restructuring phases	Laid foundation for public service ethos and CSR as national duty
2010–2012	Formalization of CSR with creation of FOSC	Institutionalized employee and community welfare programs
2019–2021	Charter of Governance and ethics code introduced	CSR embedded in governance, ethics, and compliance

Source: Own work

2.2. Mission, Vision, and Sustainability Commitments

Over time, SONEGGAZ has undergone a strategic transformation toward a more sustainable and performance-oriented business model. Through its long-term strategic plan, “SONEGGAZ 2035,” the company has articulated a renewed vision focused on responsible growth, environmental stewardship, and alignment with national and global sustainability goals (Sediki& Matmar, 2024).This includes a shift from a purely utility-driven model to one that integrates clean energy technologies, energy efficiency services, and stakeholder engagement. SONEGGAZ’s vision is thus increasingly guided by the principles of the United

Nations Sustainable Development Goals (SDGs), especially Goal 7 (affordable and clean energy), and Goal 13 (climate action), reflecting its role as a key factor in Algeria’s energy transition.

The company’s sustainability commitments are evident in its investment in ISO 50001 energy management standards, its support for renewable energy integration, and its partnership with international companies like General Electric (GE) to promote energy-efficient technologies (Sediki& Matmar, 2024). These efforts mark a significant orientation toward sustainable development and corporate social responsibility, positioning SONELGAZ as both a national leader and a proactive participant in global energy transformation. In addition, SONELGAZ has institutionalized social sustainability through its dedicated body, the Fonds des Œuvres Sociales et Culturelles (FOSC). ¹⁷FOSC supports SONELGAZ’s long-term vision by improving employee welfare and contributing to societal well-being through a wide range of initiatives including health services, education, childcare, cultural development, and housing access all of which align with the broader goals of inclusive and responsible corporate development.

Table 3: Mission, Vision, and Sustainability Commitments

Strategic Element	Description	Alignment with SDGs & Climate Goals
SONELGAZ 2035 Vision	Shift to clean, responsible, and innovation-led energy strategy	SDG 7 (Clean Energy), SDG 13 (Climate Action)
National & International Alignment	Supports Algeria’s NDC under Paris Agreement; contributes to national development plans	15,000 MW solar target by 2035; MRV system for GHG monitoring
Internal Sustainability	FOSC-led programs promoting employee well-being and social equity	Aligns with inclusive development and long-term corporate resilience

Source: Own work

3. Analysis of SONELGAZ’s CSR Policies and Key Programs

3.1. SONELGAZ’s Strategic CSR Programs and Implementation:

SONELGAZ’s approach to CSR is multifaceted and evolving. It includes environmental, social, and governance (ESG) elements that are strategically linked to its corporate operations. Among the most prominent pillars of its CSR strategy is the promotion of industrial energy efficiency, which serves dual purposes: reducing national energy consumption and supporting industrial competitiveness. As detailed by Sediki and Matmar (2024), SONELGAZ offers auditing, consulting, and renovation services to Algerian industrial firms, aiming to optimize their energy use and reduce their environmental impact. This move is not only economically strategic but also reinforces SONELGAZ’s environmental and social responsibility objectives. (Sediki& Matmar, 2024)

¹⁷ Fonds des Œuvres Sociales et Culturelles (FOSC). (n.d.). *Site officiel du Fonds des Œuvres Sociales et Culturelles du Groupe SONELGAZ*. Retrieved April 30, 2025, from <https://www.fosc.dz>

A key example of CSR implementation at the community level is the traineeship program offered by SONEGGAZ subsidiaries. According to Dahou and Marfoua (2021), these traineeships represent voluntary CSR activities aligned with the philanthropic dimension of Carroll's CSR Pyramid. They provide young people with opportunities to acquire technical skills, thereby enhancing their employability and contributing to social inclusion (Dahou & Marfoua, 2021). Although these programs may not directly benefit SONEGGAZ's operational needs, they contribute to long-term societal well-being and are highly valued by local communities. Empirical findings show that while the traineeship program does not directly influence perceptions of CSR, it significantly enhances perceived corporate reputation, which in turn positively affects CSR perceptions (Dahou & Marfoua, 2021).

Environmentally, the group is leading Algeria's clean energy transition. In 2023, SONEGGAZ launched tenders for 2 GW of solar projects, connected over 100 rural homes and farms, and expanded energy access in underserved regions achieving over 99% rural electrification, one of the highest global rates (sonelgaz.dz; reuters.com). Meanwhile, internal reforms such as ISO 9001:2015 certification and adoption of ISO 55000 standards demonstrate a growing institutional commitment to transparency, quality, and sustainability.

In addition, SONEGGAZ has taken steps to integrate climate-conscious practices, such as reducing its dependency on natural gas and promoting a more diversified and clean energy mix. This includes supporting national efforts to meet the goal of reducing energy demand by 2030 through industrial efficiency and renewable energy projects (Sediki& Matmar, 2024). Such programs are not isolated initiatives but part of a broader strategic agenda to align corporate performance with national energy goals and international environmental standards. At the same time, SONEGGAZ addresses its internal social responsibility through FOSC's programs. For example, FOSC offers comprehensive healthcare services, including general and specialist consultations, rehabilitation, and dental care. It also supports employees with children through specialized nurseries, and encourages leisure and family well-being by organizing vacation programs and summer camps for workers and their families. These actions reinforce SONEGGAZ's image as a company committed to the holistic well-being of its stakeholders.

Table 4: Summary of SONEGGAZ's Strategic CSR Programs and Implementation

Dimension	Focus Area	Key Initiatives and Outcomes
<i>Environmental</i>	Energy efficiency & clean energy transition	Industrial energy efficiency services; tenders for 2 GW solar projects; 99% rural electrification rate.
<i>Social</i>	Youth development & community support	Voluntary traineeship programs; enhanced corporate reputation; community empowerment.
<i>Governance</i>	Institutional standards and transparency	ISO 9001:2015 & ISO 55000 certifications; formalized CSR structure and internal reforms.

Source: own work

3.2. Benchmarking CSR in the MENA Energy Sector:

In comparison to its regional peers, SONEGGAZ exhibits a unique CSR profile. Morocco's ONEE and Egypt's EGAS have implemented environmental standards and clean energy

strategies such as ISO 14001 adoption and biodiversity impact assessments but SONELGAZ's employee-centered social model and rural infrastructure development are notably advanced. While firms like the UAE's TAQA and ADNOC issue ESG reports and promote accountability, SONELGAZ's approach is deeply rooted in Algeria's public service ethos. Its FOSC-led social initiatives and universal energy access programs set it apart in terms of scope and execution.

Nevertheless, SONELGAZ's external sustainability reporting could benefit from adopting global frameworks such as GRI or SDG-mapped disclosures, which are increasingly common among regional and international energy firms.

Table 5: Benchmarking CSR in the MENA Region

Country / Utility	CSR Focus Areas	Comparison with SONELGAZ
<i>Morocco (ONEE)</i>	Renewable energy; ISO 14001 certification	Similar focus on energy access; less emphasis on social welfare infrastructure
<i>Egypt (EGAS)</i>	Sustainable development strategy; biodiversity monitoring	Stronger reporting transparency; SONELGAZ leads in rural electrification
<i>Gulf Countries (e.g., UAE)</i>	ESG reporting, governance standards	SONELGAZ less formalized in reporting, but strong in social programs & public mission

Source: own work

4. Integration of CSR into Corporate Governance and Strategic Decision-Making/:

4.1. CSR in Governance and Strategy:

CSR at SONELGAZ is increasingly embedded within the company's governance structure and strategic decision-making processes. The company's reorganization into a holding company model with specialized subsidiaries is designed to enhance flexibility, autonomy, and responsiveness, which are essential for managing complex CSR programs. As part of this evolution, SONELGAZ has integrated sustainability and social performance objectives into its long-term strategy. The partnership with GE, for instance, is not only technological but also strategic in nature, aiming to elevate SONELGAZ's capabilities in energy efficiency services and align with international best practices (Sediki& Matmar, 2024).

Theoretical frameworks such as Stakeholder Theory and Reputation Management provide insight into SONELGAZ's governance logic. According to these frameworks, engaging stakeholders including local communities, industrial partners, and public institutions is essential for building trust and achieving long-term legitimacy (Dahou & Marfoua, 2021). In Laghouat, for example, the company's traineeship programs have significantly influenced community perceptions, highlighting how local-level CSR actions can shape the broader corporate image. This shows that CSR is not merely a compliance function but a strategic governance tool that can foster public trust, improve the company's social license to operate, and support organizational resilience.

Nonetheless, findings from the Laghouat case study also suggest areas for improvement, particularly in CSR communication. While traineeships are valued by local citizens, SONELGAZ's limited public engagement and media presence have reduced the visibility of these programs. The authors recommend developing a dedicated communication plan, leveraging local media and social networks to highlight CSR initiatives and reinforce corporate reputation (Dahou & Marfoua, 2021). In this regard, FOSC plays an important role in institutional CSR visibility. ¹⁸The 2022 inauguration of its new headquarters in El Hamma, Algiers, equipped with modern medical, recreational, and educational infrastructure, marked a milestone in SONELGAZ's commitment to embedding CSR within its operational core. The physical presence of these social structures and their institutional independence reinforce CSR as an integrated and strategic pillar of corporate governance.

Overall, CSR has become a central component of SONELGAZ's strategic governance framework, influencing its organizational structure, stakeholder relationships, and investment decisions. As the company continues to adapt to a rapidly evolving energy landscape, CSR will likely remain a core axis of its transformation and a foundation for achieving national and global sustainability objectives. Through FOSC, this governance is made tangible its activities are supervised by internal management committees, supported by top executives, and integrated into SONELGAZ's strategic framework. This reflects the company's understanding that employee welfare, social justice, and stakeholder inclusion are key pillars of long-term value creation.

Table 6: CSR in Governance and Strategy

Governance Level	CSR Integration	Supporting Actions / Structures
<i>Strategic Partnerships</i>	CSR embedded in alliances (e.g., GE)	Technology + CSR development (energy efficiency, modernization)
<i>Stakeholder Engagement</i>	Guided by Stakeholder Theory and Reputation Management	Local impact (e.g., Laghouat traineeships); trust-building at community level
<i>Institutional CSR Bodies</i>	FOSC fully embedded into corporate governance	New HQ in El Hamma; overseen by executive committees; linked to strategic decision-making

Source: own work

4.2. Media and Stakeholder Perspectives:

National and international media generally portray SONELGAZ's CSR as proactive and development-focused. Algerian outlets praise its contributions to energy access, rural electrification, and youth training. International reports, including Reuters and PV Magazine, highlight SONELGAZ's solar projects and renewable energy tenders.

However, stakeholders have also expressed concerns. In 2025, a parliamentarian criticized SONELGAZ for outsourcing to underperforming contractors, raising questions about governance and accountability. Trade unions have consistently defended the value of FOSC's healthcare and welfare services, while civil society groups call for improved transparency and

¹⁸ SONELGAZ. (2022). *Dossier de presse – Inauguration du nouveau siège du FOSC*. Retrieved from https://www.sonelgaz.dz/media/file/1811/dossier_presse_fosc_fr_final_64a6edc20875a9.23826587.pdf

better service delivery amid aging infrastructure. These critiques underscore the importance of continual CSR adaptation and robust stakeholder dialogue.

Table 7: Media and Stakeholder Perspectives

Source	Perspective on SONELGAZ CSR	Highlights / Critiques
<i>National media</i>	Positive coverage of rural electrification and solar programs	Framed as a national development leader
<i>International media</i>	Highlights green energy transition and tender launches (e.g., Reuters)	Recognized as a key energy actor in North Africa
<i>Stakeholder voices</i>	Praise for FOSC programs; concerns about governance and contractor choices	Calls for improved transparency, service delivery, and project accountability

Source: own work

Section 02: Research Methodology and Data Collection Framework

Introduction:

To evaluate the effectiveness of SONELGAZ's Corporate Social Responsibility (CSR) programs and their alignment with sustainable development principles, a robust and well-structured methodological framework was essential. This section presents the research design adopted for the empirical investigation and details the tools, procedures, and analytical techniques used to collect and interpret data.

The study employed a mixed-methods approach, integrating both quantitative and qualitative data to capture a comprehensive view of CSR implementation and employee perceptions. Quantitative data was gathered through a structured employee survey, enabling statistical analysis of awareness, engagement, and perceived impact. Qualitative insights were derived from a thematic analysis of key internal documents—including the 2023 Activity Report, the 2024 Collective Agreement, and governance-related publications—to examine how CSR is institutionally framed and communicated.

This section also outlines the sampling strategy, pretest procedures, data processing steps, and reliability checks, ensuring transparency and methodological rigor. Together, these methodological components enable a multidimensional understanding of SONELGAZ's CSR efforts, supporting the study's broader objective of generating evidence-based insights into the company's strategic orientation and contributions to sustainable development.

1. Research Design: Methodological Approach and Justification

This study adopts a mixed-methods research design, combining both qualitative and quantitative approaches to provide a comprehensive and nuanced evaluation of the effectiveness of SONELGAZ's Corporate Social Responsibility (CSR) programs in advancing sustainable development specifically from the perspective of its employees.

The qualitative component involves a thematic document analysis of SONELGAZ's 2023 Activity Report and the April 2024 Collective Agreement, ESST policy, Governance Charter, and press/media sources. These internal and external texts were selected for their relevance in illustrating the company's CSR commitments, strategic priorities, and integration of sustainability principles. The analysis focused on five key dimensions: environmental initiatives, social and community engagement, employee well-being and training, transparency and communication, and alignment with Sustainable Development Goals (SDGs). This approach allowed for an in-depth understanding of SONELGAZ's institutional positioning and CSR discourse.

The quantitative component centers on a structured employee survey designed to capture perceptions across four dimensions: CSR awareness, participation in CSR initiatives, perceived program effectiveness, and suggestions for improvement. The data collected enabled statistical testing of the research hypotheses and the identification of patterns linking awareness and engagement to perceived CSR outcomes.

By integrating both forms of data, the mixed-methods approach allowed for methodological triangulation, enhancing the validity and interpretative depth of the findings. While the

qualitative analysis offered insight into the company's formal strategies and documented intentions, the quantitative survey illuminated how these policies are perceived and experienced by employees in practice.

This design is particularly appropriate for the research objectives, as it bridges the gap between policy-level CSR planning and the lived reality of employee engagement. It enables a holistic evaluation of SONELGAZ's CSR performance and contributes to understanding how internal perceptions align or diverge from institutional sustainability commitments.

Research Questions and Objectives

Main Research Question: To what extent are SONELGAZ's CSR programs effective in promoting sustainable development, from the perspective of its employees?

Sub-questions:

1. How aware are employees of SONELGAZ's CSR initiatives?
2. To what extent are employees engaged in CSR-related activities?
3. How do employees perceive the effectiveness of CSR initiatives in achieving sustainable development?
4. What suggestions do employees have to improve CSR strategies?

Objectives:

- To assess employee awareness of CSR programs.
- To evaluate the level of employee engagement in CSR.
- To examine employee perceptions regarding the effectiveness of CSR programs.
- To collect employee-driven suggestions for improvement.

Research hypothesis:

Based on the objectives and research questions, the following hypotheses were formulated:

- **H1:** Higher employee awareness of CSR is positively associated with perceived effectiveness of CSR programs.
- **H2:** Greater employee engagement in CSR is positively related to their perception of SONELGAZ's commitment to sustainable development.
- **H3:** Employees who perceive CSR initiatives as effective are more likely to express satisfaction with the company's social and environmental performance.
- **H4 (Exploratory):** Employee suggestions provide valuable insights for enhancing the strategic alignment of CSR practices with sustainable development goals.

Research assumptions:

The following assumptions underpin the research design:

- The survey participants responded honestly and provided sincere reflections of their experiences.

- SONELGAZ's published reports accurately reflect its CSR strategies and actual implementation.
- The mixed-methods approach is suitable for capturing both institutional intentions and employee perceptions.
- Employees understand the concept of CSR and sustainable development as framed in the survey questions.

2. Data Collection Techniques: Surveys and Document Review

a. Employee Survey

A structured questionnaire was developed and distributed to a purposive sample of 30 employees from the SONELGAZ Distribution Company of Tiaret. The survey contained 12 questions designed to assess CSR awareness, employee engagement, perceived effectiveness of CSR programs, and alignment with Sustainable Development Goals (SDGs). It included:

- **Closed-ended questions (Q1–Q11)** to measure CSR awareness, participation, perceived social/environmental impact, and perceptions of SDG alignment.
- **Multiple-response items (Q3 and Q11)** to assess communication channels and thematic priorities.
- **An open-ended question (Q12)** inviting employees to share suggestions for improving CSR performance.

Responses were coded and analyzed using SPSS. Analytical procedures included descriptive statistics (frequencies, percentages), multiple-response analysis, Pearson correlations to test research hypotheses, and Cronbach's alpha to ensure scale reliability. Open-ended responses were coded thematically to identify recurring patterns such as transparency, training, renewable energy, communication, and employee well-being.

b. Document Analysis

Due to the absence of an official CSR or sustainability report, the qualitative aspect of the study relied on available internal and external documents. These included:

- The 2023 SONELGAZ Activity Report (the only available one at the time of research),
- The 2024 Collective Agreement,
- SONELGAZ's official Governance Charter and ESST Policy,
- Press articles from *Algerie360*, *Reuters*, *Indjazat*, and *pv-magazine*, as well as industry sources (e.g. *Switchgear Magazine*).

These documents were reviewed using a thematic content analysis framework focusing on five core dimensions: environmental initiatives, social/community engagement, employee welfare and training, transparency and communication, and alignment with the SDGs. This allowed for triangulation with employee perceptions and alignment with institutional CSR objectives.

3. Sample Selection, Data Processing, and Analytical Framework

a. Sample details and pretest description

Before deployment, the survey was pretested with a small group of colleagues. Feedback revealed ambiguity in the initial wording, prompting a revision of the questions. Clearer formulations, simple language, illustrative examples, and a brief introductory explanation of CSR were added to enhance comprehension.

The final questionnaire was administered to a purposive sample of 30 employees drawn from five departments (Human Resources, Finance and Accounting, Commercial, Electricity, and Gas). The respondents represented two socio-professional categories: cadres and maîtrise. While convenience sampling limited generalizability, the sample reflected departmental diversity and provided rich insight into employee perspectives on CSR practices.

b. Data Processing

Quantitative responses were manually coded and processed using SPSS. Closed-ended responses were entered numerically, while multiple-response and open-ended items were coded thematically. Suggestions in Q12 were grouped under recurring keywords, and binary coding (mentioned / not mentioned) was applied for frequency analysis. Full SPSS outputs are included in the annexes for transparency.

c. Analytical Framework

The analysis was conducted in five phases:

1. **Descriptive statistics (frequencies, percentages)** were used to analyze responses to key CSR perception questions.
2. **Multiple-response analysis** summarized recurring sources of information and areas of focus for CSR.
3. **Correlation analysis (Pearson)** tested three of the four hypotheses related to CSR awareness, engagement, and effectiveness.
4. **Reliability analysis using Cronbach's Alpha ($\alpha = 0.87$)** was conducted on a four-item scale assessing CSR effectiveness (importance of CSR, social/environmental impact, perceived effectiveness, and SDG alignment).
5. **Thematic content analysis** was applied to Q12 responses and documents to identify strategic themes, challenges, and stakeholder concerns.

This structured framework allowed for the evaluation of SONEGAS's CSR strategy from both an employee-centered and institutional perspective, enabling the confirmation or rejection of the four proposed research hypotheses.

4. Ethical consideration:

All research procedures adhered to academic ethical standards. Participants were informed of the study's purpose, provided voluntary and anonymous responses, and were assured of confidentiality. Data was stored securely and used solely for academic purposes. All institutional and media sources were properly cited to ensure academic integrity.

5. Methodological limitations:

Despite the methodological rigor adopted, several limitations must be acknowledged:

- No official CSR or sustainability reports were available. Only the 2023 Activity Report and a small set of official documents were accessed.
- The qualitative analysis relied heavily on press and institutional documents, which may reflect selective or idealized portrayals of CSR efforts.
- The sample size (N=30) was limited and selected by convenience, affecting generalizability and statistical power.
- The study reflects a narrow timeframe (2023–2024), restricting the ability to assess CSR evolution or trends over time.
- The scope focused on internal employees, without input from external stakeholders (e.g., communities, NGOs), who might provide alternative perspectives on CSR impact.
- Given Algeria’s bilingual administrative environment (Arabic and French), minor interpretation or translation issues may have affected coding or comprehension.

Conclusion:

The methodology developed for this study provided a strong foundation for examining SONEGAS’s CSR practices. Through a mixed-methods approach, supported by SPSS analysis and institutional document review, the research enabled a multifaceted understanding of how CSR is perceived internally and how it aligns with broader sustainability goals. These methodological tools proved essential for testing the study’s hypotheses and drawing the strategic insights presented in the following section.

Section 03: Empirical Findings and Strategic Insights

Introduction:

This section presents the key empirical findings from the mixed-methods research conducted to assess the effectiveness of SONELGAZ's Corporate Social Responsibility (CSR) programs and their contribution to sustainable development. It combines quantitative data from employee surveys with qualitative insights drawn from internal documents and open-ended responses.

The quantitative analysis explores employee awareness, engagement, and perceptions of CSR, supported by descriptive statistics, correlation tests, and reliability checks. In parallel, qualitative themes from SONELGAZ's official documents and employee suggestions reveal how CSR is communicated and experienced across the organization.

Together, these findings offer a comprehensive view of SONELGAZ's CSR efforts, highlighting strengths, identifying gaps, and generating strategic insights to support future improvements aligned with sustainability goals.

1. Evaluation of the effectiveness of SONELGAZ's CSR programs:

This section presents the empirical findings of the study, based on data collected through a structured employee survey and a review of SONELGAZ's official documents, including the 2023 Activity Report, the 2024 Collective Agreement, and the company's HSE policy. To provide additional external perspectives, selected press articles and online publications related to SONELGAZ's CSR activities were also consulted.

The objective is to assess the effectiveness of SONELGAZ's CSR programs in supporting sustainable development, as perceived by its employees.

The analysis is organized into four key dimensions aligned with the research sub-questions and hypotheses: **CSR awareness, employee engagement, perceived effectiveness, and employee suggestions for improvement**. Quantitative results are presented first, supported by statistical tests using SPSS, followed by relevant qualitative insights from official documents and media sources to enrich the interpretation. This combined approach ensures a comprehensive evaluation of SONELGAZ's CSR performance and its strategic alignment with sustainable development principles.

1.1. Quantitative Findings: Survey Results and Hypothesis Testing

This subsection presents the quantitative findings of the study based on data collected through a structured questionnaire administered to 30 employees from SONELGAZ Distribution Company of Tiaret. The analysis was conducted using SPSS software, includes descriptive statistics as well as inferential tests to evaluate the research hypotheses. The results are structured according to four key dimensions derived from the research sub-questions: employee awareness of CSR, engagement in CSR activities, perceived effectiveness of CSR initiatives, and suggestions for improvement. Each dimension is examined through relevant survey indicators, and where applicable, statistical relationships between variables are tested to confirm or reject the proposed hypotheses.

Table 8: Summary of Survey Questions and Response Validity

<i>Survey Question</i>	<i>Number of Valid Responses</i>	<i>Missing Responses</i>
<i>Have you ever heard of CSR?</i>	30	0
<i>Did you know SONEGAS has CSR programs?</i>	30	0
<i>Have you participated in a CSR activity?</i>	30	0
<i>Frequency of CSR communication</i>	30	0
...	...	...

This table provides an overview of the key survey items used in the quantitative analysis, along with the number of valid and missing responses for each question. All 30 participants completed every item in the questionnaire, resulting in a fully complete dataset suitable for descriptive and inferential statistical analysis. A detailed version of the raw SPSS output for the descriptive statistics presented in this section is provided in Annex 1. This annex includes the full table of valid and missing responses for each survey item, as exported directly from the software.

1.1.1. CSR Awareness and Hypothesis H1:

This part of the study explores employees' awareness of Corporate Social Responsibility (CSR) practices at SONEGAS and examines whether greater awareness correlates with stronger perceptions of CSR effectiveness.

The survey responses revealed that only 46.7% of participants had previously heard of the term CSR, and just 43.3% were aware that SONEGAS implemented CSR programs. Moreover, 50% of employees reported that the company “never” communicates about CSR, while only 13.3% indicated they receive communication “regularly.” When asked whether employees can propose CSR-related ideas, only 40% responded “yes,” while 33.3% were unsure. These results indicate a moderate level of awareness, with clear opportunities for strengthening internal communication and engagement regarding CSR strategies.

Table 9: Summary of Employee Responses to CSR Awareness Items

<i>Survey Question</i>	<i>Response Options</i>	<i>Frequency (n)</i>	<i>Percentage (%)</i>
<i>Have you ever heard of CSR?</i>	Yes / No / Not sure	14 / 12 / 4	46.7 / 40 / 13.3
<i>Did you know SONEGAS has CSR programs?</i>	Yes / No / Not sure	13 / 11 / 6	43.3 / 36.7 / 20
<i>Frequency of CSR communication</i>	Regularly / Sometimes / Rarely / Never	4 / 6 / 5 / 15	13.3 / 20 / 16.7 / 50
<i>Can employees propose CSR ideas?</i>	Yes / No / Not sure	12 / 8 / 10	40 / 26.7 / 33.3

Table 9 summarizes employee responses to four key questions related to CSR awareness. The complete SPSS output tables for each question are provided in Annex 2 for reference.

In order to assess the link between CSR awareness and perceptions of program effectiveness, a Pearson correlation analysis was conducted between the variables “Frequency of CSR

communication” and “Evaluation of CSR efforts.” The analysis showed a strong and statistically significant positive correlation ($r = 0.813$, $p < 0.001$). This suggests that employees who receive CSR-related communication more frequently are considerably more likely to perceive the company’s CSR initiatives as effective. Therefore, Hypothesis 1 which posits that greater CSR awareness is positively associated with stronger perceptions of CSR effectiveness is confirmed.

Table 10: Pearson Correlation between CSR Communication Frequency and Perceived Effectiveness of CSR Efforts

Corrélations			
		Frequency of CSR communication	Evaluation of CSR efforts
Frequency of CSR communication	Corrélation de Pearson	1	,813**
	Sig. (bilatérale)		<,001
	N	30	30
Evaluation of CSR efforts	Corrélation de Pearson	,813**	1
	Sig. (bilatérale)	<,001	
	N	30	30

** . La corrélation est significative au niveau 0.01 (bilatéral).

Table 10 presents the Pearson correlation analysis results. A strong and statistically significant positive correlation ($r = 0.813$, $p < 0.001$) was observed between the frequency of CSR communication and employees’ evaluation of CSR effectiveness. The full SPSS output is also included in Annex 3.

1.1.2. Employee Engagement and Hypothesis H2:

The second research sub-question explored the extent to which employee engagement in CSR activities influences their perception of SONEGAS’s commitment to sustainable development. Descriptive data revealed that only 13.3% of employees had participated in a CSR activity, while 80% reported they had not, and 6.7% were unsure. These results indicate a generally low level of direct employee involvement in CSR initiatives.

Table 11: Distribution of Employee Responses to CSR Engagement

Have you participated in a CSR activity?					
		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	Yes	4	13,3	13,3	13,3
	No	24	80,0	80,0	93,3
	Not sure / I don't know	2	6,7	6,7	100,0
	Total	30	100,0	100,0	

Table 11 presents the distribution of employee responses regarding their participation in CSR activities at SONELGAZ. The results show that the majority of respondents (80%) had not participated in any CSR initiative, while only 13.3% reported active involvement. A small portion (6.7%) indicated uncertainty.

To evaluate the relationship between CSR engagement and perceived alignment with sustainable development goals, a Pearson correlation test was performed between the variables “Have you participated in a CSR activity?” and “Does CSR support SDGs?” The analysis showed a very weak and statistically insignificant correlation ($r = 0.156$, $p = 0.410$). This suggests that employee participation in CSR activities is not significantly associated with their perception of SONELGAZ’s support for sustainable development. As a result, Hypothesis 2 is not supported by the data.

Table 12: Pearson Correlation between CSR Engagement and Perceived Support for SDGs

Corrélations			
		Have you participated in a CSR activity?	Does CSR support SDGs?
Have you participated in a CSR activity?	Corrélation de Pearson	1	,156
	Sig. (bilatérale)		,410
	N	30	30
Does CSR support SDGs?	Corrélation de Pearson	,156	1
	Sig. (bilatérale)	,410	
	N	30	30

Table 12 displays the results of a Pearson correlation analysis conducted to examine the relationship between employee engagement in CSR activities and their perception of SONELGAZ’s alignment with sustainable development goals (SDGs). The correlation was weak ($r = 0.156$) and statistically insignificant ($p = 0.410$), indicating no meaningful association between the two variables in this sample.

1.1.3. Perceived Effectiveness and Hypothesis H3:

The third research hypothesis (H3) examined whether employees who perceive CSR initiatives as effective are more likely to express satisfaction with SONELGAZ’s social and environmental performance. To evaluate this, a set of four survey items was used to measure employees’ perceptions of CSR effectiveness:

1. Evaluation of overall CSR efforts
2. Perceived importance of CSR for SONELGAZ
3. Perception of whether CSR helps the community and environment
4. Belief in CSR’s contribution to the Sustainable Development Goals (SDGs)

Table 3.5 summarizes the results of these four items. Regarding the overall evaluation of CSR efforts, 13.3% of employees rated CSR as “Excellent,” 13.3% as “Good,” 23.3% as “Acceptable,” and 23.3% as “Insufficient,” while 26.7% selected “I don’t know.” In terms of social/environmental contribution, 56.7% of respondents agreed that CSR helps the community “a lot,” whereas 23.3% said “not at all.” Furthermore, 40% of participants considered CSR to be “very important” to SONELGAZ’s mission, and 46.7% indicated that they believe CSR supports the SDGs, while an equal share responded “not sure.”

Table 13: Summary of Employee Perceptions of CSR Effectiveness

Survey Question	Response Options	Frequency (n)	Percentage (%)
<i>Evaluation of CSR efforts</i>	Excellent / Good / Acceptable / Insufficient / I don't know	4 / 4 / 7 / 7 / 8	13.3 / 13.3 / 23.3 / 23.3 / 26.7
<i>Does CSR help the community/environment?</i>	Yes, a lot / A little / Very little / Not at all	17 / 5 / 1 / 7	56.7 / 16.7 / 3.3 / 23.3
<i>Importance of CSR for SONEGAS</i>	Very important / Important / Slightly important / Not at all important	12 / 8 / 5 / 5	40 / 26.7 / 16.7 / 16.7
<i>Does CSR support SDGs?</i>	Yes / No / Not sure	14 / 2 / 14	46.7 / 6.7 / 46.7

Table 13 summarizes employee perceptions related to CSR effectiveness, including their evaluation of CSR efforts, perceived impact on the community and environment, and the importance of CSR within SONEGAS. The full SPSS output is also included in Annex 4.

Pearson Correlation between CSR Evaluation and Perceived Social/Environmental Impact:

Although all four items contributed to the broader construct of perceived CSR effectiveness (and were later tested together for internal reliability using Cronbach's Alpha), the hypothesis testing for H3 focused on the relationship between two core variables: "Evaluation of CSR efforts" and "Does CSR help the community/environment?" These were selected because they most directly reflect the operationalized link between perceived effectiveness and satisfaction with CSR's real-world outcomes.

To test this relationship, a Pearson correlation was performed between the variables "Evaluation of CSR efforts" and "Does CSR help the community/environment?" The analysis showed a strong, statistically significant positive correlation ($r = 0.632$, $p < 0.001$), indicating that employees who evaluate CSR initiatives more positively are more likely to believe that these efforts contribute meaningfully to social and environmental impact. Therefore, Hypothesis 3 is confirmed.

Table 14: Pearson Correlation between CSR Evaluation and Perceived Social /Environmental Impact

Corrélations			
		Evaluation of CSR efforts	Does CSR help the community/env ironment?
Evaluation of CSR efforts	Corrélation de Pearson	1	,632**
	Sig. (bilatérale)		<,001
	N	30	30
Does CSR help the community/environment?	Corrélation de Pearson	,632**	1
	Sig. (bilatérale)	<,001	
	N	30	30

** . La corrélation est significative au niveau 0.01 (bilatéral).

Table 14 presents the Pearson correlation results between the evaluation of CSR efforts and employee perceptions of their contribution to social and environmental outcomes. A strong and statistically significant relationship was found ($r = 0.632$, $p < 0.001$), supporting Hypothesis 3.

Reliability of the CSR Effectiveness Scale (Cronbach's Alpha):

To assess the internal consistency of the scale used to measure employees' perceptions of CSR effectiveness, a reliability analysis was conducted using Cronbach's Alpha. Although Hypothesis 3 specifically tested the relationship between two key variables "Evaluation of CSR efforts" and "Does CSR help the community/environment?" these were part of a broader four-item scale developed to capture employee perceptions of CSR effectiveness. The scale also included the items "Importance of CSR for SONEGAS" and "Does CSR support SDGs?", which together reflect the multidimensional nature of perceived CSR performance.

The resulting Cronbach's Alpha coefficient was $\alpha = 0.87$, indicating a high level of internal consistency among the four items. All corrected item-total correlations exceeded 0.69, and the Alpha remained strong even when individual items were removed (ranging from 0.839 to 0.881). These results confirm that the items reliably measure a unified construct the perceived effectiveness of CSR and support their use in statistical testing and further interpretation.

Table 15: Reliability Statistics (Cronbach's Alpha) for the CSR Effectiveness Scale

Récapitulatif de traitement des observations				Statistiques de fiabilité		
		N	%	Alpha de Cronbach	Alpha de Cronbach basé sur des éléments standardisés	Nombre d'éléments
Observations	Valide	30	100,0			
	Exclu ^a	0	,0			
	Total	30	100,0			
a. Suppression par liste basée sur toutes les variables de la procédure.				,888	,891	4

Matrice de corrélation inter-éléments

	Importance of CSR for SONEGGAZ	Does CSR help the community/env ironment?	Evaluation of CSR efforts	Does CSR support SDGs?
Importance of CSR for SONEGGAZ	1,000	,907	,643	,530
Does CSR help the community/environment?	,907	1,000	,632	,558
Evaluation of CSR efforts	,643	,632	1,000	,765
Does CSR support SDGs?	,530	,558	,765	1,000

Statistiques récapitulatives d'éléments

	Moyenne	Minimum	Maximum	Plage	Maximum / Minimum	Variance	Nombre d'éléments
Moyenne des éléments	2,350	1,933	3,367	1,433	1,741	,464	4

Statistiques de total des éléments

	Moyenne de l'échelle en cas de suppression d'élément	Variance de l'échelle en cas de suppression d'élément	Corrélation complète des éléments corrigés	Carré de la corrélation multiple	Alpha de Cronbach en cas de suppression d'élément
Importance of CSR for SONEGGAZ	7,30	10,079	,802	,832	,839
Does CSR help the community/environment?	7,47	9,361	,797	,830	,839
Evaluation of CSR efforts	6,03	8,930	,760	,664	,860
Does CSR support SDGs?	7,40	11,490	,694	,597	,881

“This validated scale will support further interpretation of SONEGGAZ’s CSR effectiveness and allow reliable linkage to strategic insights in the final discussion.”

1.1.4. Suggestions for Improvement and Hypothesis H4 (Exploratory):

The final section of the quantitative analysis explored employee suggestions for enhancing SONELGAZ's CSR practices. Out of the 30 total respondents, 14 employees (46.7%) answered the open-ended question regarding CSR improvement. These responses were thematically coded, and the resulting patterns offer meaningful insights into employee priorities. The most frequently mentioned theme was employee well-being (33.3% of those who responded), followed by communication and awareness (20%), renewable energy (20%), transparency (16.7%), and community support (16.7%). Training was mentioned by 13.3% of the respondents. These suggestions reflect employee expectations for both internal improvements and broader community or environmental engagement.

Several of these suggestions align strongly with the Sustainable Development Goals (SDGs), particularly those focusing on health and well-being (SDG 3), quality education (SDG 4), affordable and clean energy (SDG 7), and strong institutions (SDG 16). Although no statistical test was applied to this exploratory hypothesis, the qualitative richness of the responses supports Hypothesis 4. It can thus be concluded that employee suggestions provide valuable insights for enhancing the strategic alignment of CSR practices with sustainability objectives.

Table 16: Frequency of Themes in Employee Suggestions for CSR Improvement

<i>Theme</i>	Mentioned (n)	Percentage of Respondents Who Answered (%)
<i>Employee well-being</i>	10	71.4%
<i>Communication / awareness</i>	6	42.9%
<i>Renewable energy</i>	6	42.9%
<i>Transparency</i>	5	35.7%
<i>Community support</i>	5	35.7%
<i>Training</i>	4	28.6%

Table 16 presents the frequency of themes mentioned by the 14 employees who responded to the open-ended question regarding CSR improvement. The data reflects the most common priorities expressed, particularly in relation to well-being, awareness, and environmental responsibility. The full SPSS output is also included in Annex 5.

1.2. Qualitative Insights: Document and Media Analysis

To complement the quantitative findings, a qualitative content analysis was conducted using selected internal and external documents produced by SONELGAZ between 2022 and 2024. These include the company’s Activity Report (2023), the Politique HSE (Health, Safety & Environment Policy), the 2024 Collective Agreement, the Governance Charter (2023), as well as external media reports and press releases. The goal was to identify SONELGAZ’s stated CSR priorities and assess how these align with its public image and sustainability commitments.

Category	Source
Internal Sources	SONELGAZ’s 2023 Activity Report
	Politique HSE (Health, Safety & Environment Policy)
	2024 Collective Agreement
	Governance Charter (March 2023)
Public-Facing Sources	News reports (e.g., <i>algerie360.com</i> , <i>algeriainvest.com</i>)
	Press releases (e.g., <i>GE Vernova</i> , <i>Switchgear Magazine</i>)
	SONELGAZ website articles and newsletters

A thematic coding framework was developed based on five pre-defined categories:

- 1. Environmental initiatives
- 2. Social and community engagement
- 3. Employee well-being and training
- 4. Transparency and communication
- 5. Alignment with the Sustainable Development Goals (SDGs)

Each document was read and analyzed manually. Relevant excerpts were identified and grouped under the five themes. Recurring language, actions, and declarations were extracted and interpreted in relation to both SONELGAZ’s internal strategy and its public messaging. This allowed for the construction of a coherent picture of how CSR is articulated, implemented, and represented by the company.

The following sections present the results of this thematic analysis, structured according to the five categories above.

Table 17:Thematic coding framework used for qualitative analysis of SONELGAZ documents and media

Code Theme	Description
Environmental Initiatives	Green energy, solar power, EV infrastructure, eco-events
Social/Community Engagement	Solidarity programs, school kits, cultural events, health support

Employee Well-being & Training	Internal training institutes, health partnerships, skills development
Transparency & Communication	Governance charter, ethics, stakeholder trust
Alignment with SDGs	Mentions of SDG numbers or goals, climate targets, Vision 2035 references

1.2.1. Internal CSR Commitments and Strategic Orientation

This section presents a qualitative analysis of SONEGGAZ’s official documents to understand the company’s internal approach to Corporate Social Responsibility (CSR) and its alignment with sustainable development principles. Using a thematic coding framework, five key categories were identified for analysis: environmental initiatives, social and community engagement, employee well-being and training, transparency and communication, and alignment with the Sustainable Development Goals (SDGs). The analysis draws on SONEGGAZ’s Activity Report (2023), its Politique HSE, the 2024 Collective Agreement, and the Governance Charter (2023), offering insight into how CSR is strategically embedded in the company’s internal policies and public responsibilities.

Environmental Initiatives

SONEGGAZ’s internal documents reveal a strong institutional focus on environmental responsibility. The Politique HSE outlines the company’s commitment to pollution prevention, sustainable resource management, and energy efficiency. It emphasizes eco-responsible practices and public awareness campaigns, including participation in symbolic events such as Earth Hour. Furthermore, the company reports the deployment of electric vehicle charging stations through its subsidiary SAIEG, and the implementation of energy-saving measures even in its export operations. These actions not only reflect operational awareness of environmental issues but also signal alignment with national climate goals and SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action). The internal framing of these programs positions SONEGGAZ as a key actor in Algeria’s ecological transition.

Social and Community Engagement

A major axis of SONEGGAZ’s CSR policy is its investment in community support programs. According to the 2023 Activity Report, the company financed 173 cultural, educational, environmental, and social events, with a reported budget of over 1,094 MDA. Additionally, 196 MDA were allocated to direct “solidarity” actions, including assistance to vulnerable populations (e.g., energy bill coverage for associations, school kit distribution, and construction of Quranic schools). These actions align closely with SDG 10 (Reduced Inequalities) and reflect SONEGGAZ’s aim to strengthen its role as a socially engaged public enterprise. The structure of these programs indicates that CSR is not treated as peripheral but as an institutionalized component of SONEGGAZ’s public mission.

Employee Well-being and Training

The company also places significant emphasis on employee development, as reflected in the 2024 Collective Agreement and its educational infrastructure. SONELGAZ manages three training institutes two technical and one managerial that deliver over 500,000 training hours per year to approximately 19,000 learners. Moreover, the company has actively contributed to the creation of the African Network of Centers of Excellence in Electricity, training engineers from over 10 countries. These efforts are consistent with SDG 4 (Quality Education) and SDG 8 (Decent Work and Economic Growth), while also reflecting an internal strategic objective: building and retaining a highly skilled national and regional workforce. In addition, the company's engagement with health-related organizations (e.g., cancer care centers and cerebral palsy rehabilitation) further reinforces its concern for the physical and mental well-being of both employees and surrounding communities.

Transparency and Communication

Institutional transparency has emerged as a central priority in SONELGAZ's governance reform. In March 2023, the company adopted a Governance Charter designed to improve ethical conduct, stakeholder trust, and accountability. The charter outlines principles of integrity, good governance, and respect for institutional values. Its implementation is linked to broader national reforms in the energy sector and demonstrates a response to increasing societal expectations around corporate ethics. This policy aligns with SDG 16 (Peace, Justice, and Strong Institutions), and internally it supports a culture of accountability, particularly regarding environmental and social performance. The emphasis on transparency also strengthens SONELGAZ's legitimacy in forming strategic partnerships with national and international actors.

Alignment with the SDGs and National Sustainability Strategy

Perhaps most significantly, SONELGAZ's internal documents emphasize the company's alignment with Algeria's national energy transition strategy and the Sustainable Development Goals. The 15 GW solar energy program entrusted to SONELGAZ by the Ministry of Energy and Mines is repeatedly referenced in both the 2023 Activity Report and media statements. Internally, this objective is framed not merely as a state obligation but as a long-term sustainability commitment, with clear references to SDG 7 (Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 13 (Climate Action). SONELGAZ's role in grid modernization, clean mobility (e.g., electric vehicle infrastructure), and the localization of energy technology manufacturing further reinforce this alignment. These projects are not isolated from the company's CSR framework but presented as extensions of its sustainable development mission.

In conclusion, SONELGAZ's internal documentation reveals a robust and structured CSR strategy deeply integrated into its governance, operations, and public service responsibilities. The company demonstrates a strong commitment to environmental sustainability, community impact, employee development, and ethical governance all of which correspond closely with Algeria's national goals and the UN's SDGs. This internal orientation reinforces the company's legitimacy as a public energy leader and lays the foundation for evaluating how effectively these commitments are perceived and implemented across different stakeholder groups.

1.2.2. External Communication and Public Image

This section analyzes how SONELGAZ publicly communicates its CSR and sustainability actions through media coverage, press releases, and external publications. It assesses whether the public image aligns with the strategic commitments outlined in internal documents and examines how external messaging reinforces the company's CSR identity, particularly in relation to environmental stewardship, social impact, governance transparency, and alignment with the SDGs.

Environmental Initiatives and Public Engagement

External sources, including Algerian media (e.g., algerie360.com) and SONELGAZ's public statements, consistently present the company as a proactive actor in Algeria's environmental transition. SONELGAZ's sponsorship of Earth Hour events, where public buildings symbolically switch off lights to promote energy conservation, demonstrates a communicative commitment to environmental awareness. News articles also highlight SONELGAZ's adoption of eco-responsible practices in its export activities, which strengthens its public identity as a green enterprise. Furthermore, media coverage of SONELGAZ's large-scale renewable energy programs such as tenders for 2,000 MW of solar power and the development of 3,000 MW of solar capacity in 12 wilayas positions the company as a national driver of climate action, directly tied to SDG 13 (Climate Action) and SDG 7 (Clean Energy).

Social Responsibility and Community Visibility

Media narratives consistently emphasize SONELGAZ's role in supporting vulnerable populations and grassroots initiatives. Reports spotlight its direct solidarity actions, such as distributing 60,000 school kits in partnership with the Algerian Red Crescent and financing Quranic school construction in underserved regions. Additionally, SONELGAZ's support for cancer associations, disability organizations, and youth sports clubs is frequently cited. These initiatives resonate strongly with SDG 3 (Health), SDG 4 (Education), and SDG 10 (Reduced Inequality), and they serve to reinforce SONELGAZ's image as a socially anchored, community-minded public company. The consistent promotion of these activities through news portals and press releases suggests a deliberate effort to sustain a visible and positive social reputation.

Governance, Partnerships, and Transparency

Public-facing documents and media releases reflect SONELGAZ's engagement in transparent governance and strategic partnerships. The adoption of the Governance Charter in 2023 is publicly framed as a turning point in the company's management culture, aimed at reinforcing stakeholder trust. Similarly, coverage of high-level forums, such as the 7th Algerian Gas Industry Forum (Oran, 2023), shows SONELGAZ positioning itself as a policy implementer of Algeria's green economy goals. Notably, the company's joint venture with GE Vernova transformed in 2024 to produce high-voltage grid equipment is cited in Switchgear Magazine and GE Vernova's press releases as a cornerstone of SONELGAZ's commitment to SDG 9 (Industry/Innovation) and SDG 17 (Partnerships). These narratives align with internal governance objectives and enhance SONELGAZ's image as a strategic and forward-looking institution.

Framing and International Recognition

Media outlets have also highlighted SONELGAZ's growing international reputation. In 2025, for example, the company received the "PAM Sustainability Award" from the Mediterranean Parliament, recognizing its role in advancing energy transition and social responsibility in North Africa. In addition, Algerian Invest reported that SONELGAZ's export growth in 2024 was driven in part by its adoption of sustainable and diversified business practices. These portrayals suggest that SONELGAZ's CSR image is not only domestically constructed but increasingly shaped for regional and international audiences. The framing of CSR as a central pillar of SONELGAZ's public identity thus appears both intentional and strategic.

In summary, external communications confirm and reinforce SONELGAZ's internal CSR commitments. Media narratives consistently portray the company as a key actor in Algeria's sustainable development strategy particularly in areas such as energy transition, community engagement, and transparent governance. The alignment between internal values and external representation enhances the company's public credibility and suggests that its CSR approach is not merely symbolic, but actively projected and socially reinforced. This coherence between internal practice and external image provides further support for the relevance and depth of SONELGAZ's CSR integration.

1.2.3. Triangulation with Survey Findings

The qualitative analysis of SONELGAZ's official documents and external communications reveals a comprehensive and structured CSR strategy, closely aligned with Algeria's national development priorities and the United Nations Sustainable Development Goals (SDGs). However, when this external positioning is cross-checked with employee perceptions captured in the survey, several contrasts and partial alignments emerge.

On the one hand, SONELGAZ's internal and public documents emphasize large-scale investments in renewable energy, environmental protection, and eco-conscious behavior. Yet only 46.7% of employees surveyed believed that SONELGAZ supports the SDGs, and nearly a quarter of respondents felt that the company's CSR efforts had little or no visible impact on the community or environment. Additionally, despite the group's significant sponsorship and solidarity programs such as distributing school kits, financing health centers, and funding grassroots associations only 13.3% of employees reported direct participation in CSR activities, and half indicated they never received communication about such efforts. These disparities suggest a disconnect between high-level strategic initiatives and internal engagement or visibility at the employee level.

Nonetheless, certain areas showed strong alignment. For example, 66.7% of employees considered CSR important or very important for SONELGAZ consistent with the company's formal commitments to education, training, and well-being outlined in the 2014 Collective Agreement and CSR strategy. Moreover, many employee suggestions gathered from the survey such as increased transparency, environmental efforts, and improved training mirror the core priorities emphasized in SONELGAZ's governance charter and sustainability policy.

This triangulation indicates that while SONELGAZ has clearly institutionalized CSR into its public mission and corporate structure, internal communication and employee-level participation remain underdeveloped. Closing this perceptual gap will be critical to strengthening the effectiveness and legitimacy of SONELGAZ's CSR strategy going forward.

1.3. Summary and Interpretation:

This section summarizes the main findings from the empirical investigation and provides an interpretation of how SONELGAZ's CSR practices are perceived internally and projected externally. It also revisits the study's hypotheses in light of the collected evidence and lays the foundation for the upcoming analysis on alignment with the Sustainable Development Goals (SDGs).

1.3.1. Hypothesis Testing:

The four research hypotheses were tested using quantitative survey results and supported, where appropriate, by qualitative document analysis. The findings are summarized below:

- H1: Employees who are more aware of SONELGAZ's CSR activities are more likely to perceive these activities as effective.

✓ Confirmed. A statistically significant positive correlation was found between awareness indicators and perceived CSR effectiveness ($r = 0.813$, $p < 0.001$), indicating that internal communication plays a key role in shaping employee evaluations.

- H2: Employees who participate in CSR activities will have a more positive view of their social and environmental impact.

✗ Not confirmed. Although logically expected, no statistically significant correlation was found between CSR participation and perceived contribution to the SDGs ($r = 0.156$, $p = 0.410$), possibly due to low participation rates (only 13.3%).

- H3: Employees who perceive CSR initiatives as effective are more likely to express satisfaction with SONELGAZ's social and environmental performance.

✓ Confirmed. A strong and statistically significant relationship was found ($r = 0.632$, $p < 0.001$), suggesting that perception of CSR quality is directly linked to satisfaction with its outcomes.

- H4 (Exploratory): Employee suggestions provide valuable insights for enhancing the strategic alignment of CSR practices with sustainable development goals.

✓ Supported. Open-ended survey responses were thematically analyzed and revealed constructive suggestions—especially regarding transparency, awareness, environment, and training, which align with several SDGs (3, 4, 7, 13, and 16).

1.3.2. Key Employee Insights:

Survey data revealed a mixed level of awareness and engagement with CSR initiatives. While 66.7% of employees considered CSR important or very important, only 46.7% were aware of SONELGAZ's CSR programs, and half reported never receiving CSR communication. Participation was low (13.3%), but suggestions offered by employees showed alignment with strategic priorities already expressed in the company's internal documents.

This gap between strategic intent and employee experience points to a need for stronger internal communication, clearer participation channels, and more inclusive engagement processes. At the same time, the areas where perception and strategy do align (training, environment, transparency) offer solid foundations for improvement.

1.3.3. Toward SDG Alignment

The findings suggest that SONELGAZ's CSR strategy is well-developed and articulated at the institutional level, with clear links to national and global sustainability goals. However, internal implementation particularly in terms of employee engagement and communication requires further attention to ensure full alignment between corporate commitments and on-the-ground perception. This conclusion sets the stage for the next section, which will examine in depth how SONELGAZ's CSR practices contribute to the Sustainable Development Goals within the Algerian energy sector.

2. CSR's Contribution to Sustainable Development Goals within the Energy Sector:

In recent years, the Sustainable Development Goals (SDGs) established by the United Nations have become an essential framework for assessing the social, environmental, and economic impacts of corporate practices. As a state-owned energy company, SONELGAZ operates at the intersection of critical national priorities and global development agendas. This section evaluates the extent to which SONELGAZ's CSR strategy aligns with the SDGs, based on evidence gathered from internal documentation, media reports, and employee perceptions. The analysis identifies specific SDGs addressed by SONELGAZ's initiatives and highlights both the strengths and limitations of its current contributions within the Algerian energy context.

SDG 3: Good Health and Well-Being

SONELGAZ's social initiatives contribute meaningfully to SDG 3 through support for health-related programs. In 2023, the company financed rehabilitation centers for children with cerebral palsy and partnered with cancer care organizations. These efforts were part of its "solidarity actions" budget of 196 million DZD and reflect a strong commitment to community well-being. In addition, survey results and employee suggestions expressed appreciation for this type of direct community impact, though internal communication about these efforts remains limited.

SDG 4: Quality Education

Through its three internal training institutes and participation in the African Network of Centers of Excellence in Electricity, SONELGAZ delivers over 500,000 training hours annually. This contributes directly to SDG 4, by enhancing access to technical and managerial education for employees and young professionals across Algeria and sub-Saharan Africa. Employee suggestions for further training and upskilling confirm the strategic importance of this domain, suggesting that continued investment in education is both well-aligned and internally supported.

SDG 7: Affordable and Clean Energy

One of SONELGAZ's most visible contributions to the SDGs lies in its implementation of Algeria's national energy transition strategy. The group has launched tenders for 2,000 MW of solar energy, while helping manage the broader 15 GW renewables program set by the state. By 2023, over 3,000 MW of solar capacity had been awarded or developed.

SONELGAZ is also investing in energy efficiency campaigns, eco-responsible practices in exports, and electric vehicle charging infrastructure. These efforts demonstrate clear alignment with SDG 7 and position the company as a major player in North Africa's clean energy transformation.

SDG 8: Decent Work and Economic Growth

The company's focus on internal capacity-building, employee protection, and formalized labor agreements (as reflected in the 2024 Collective Agreement) reinforce its alignment with SDG 8. Through skills development, job creation in the renewables sector, and investment in local manufacturing (e.g. electric charger assembly), SONELGAZ supports inclusive economic development. Employee feedback, however, pointed to a desire for more inclusive CSR engagement across departments and professional categories.

SDG 9: Industry, Innovation, and Infrastructure

SONELGAZ has shown a growing commitment to innovation in infrastructure through strategic partnerships and modernization efforts. Its 2024 agreement with GE Vernova to localize high-voltage grid manufacturing will supply 134 substations by 2028 and modernize Algeria's electricity grid. This joint venture supports technological advancement and localization, directly addressing SDG 9.

SDG 10: Reduced Inequalities

CSR programs such as energy bill assistance for underserved communities, school supply distribution in rural regions, and collaboration with the Algerian Red Crescent demonstrate SONELGAZ's contribution to SDG 10. These programs are explicitly designed to reach vulnerable populations, though limited awareness among employees suggests a need to better communicate these initiatives internally.

SDG 13: Climate Action

SONELGAZ's involvement in renewable energy production, gas-to-power transition strategies, and electrification of mobility infrastructure positions it as a key climate actor. Its public statements explicitly connect these projects to climate commitments and national environmental targets, aligning with SDG 13. Moreover, public campaigns like Earth Hour participation help promote climate awareness.

SDG 16: Peace, Justice, and Strong Institutions

The adoption of the Governance Charter in 2023 signals a formal institutional commitment to transparency, ethics, and stakeholder trust. This contributes to SDG 16 by reinforcing governance accountability within a large public utility. Employee survey data and suggestions, however, show that more work is needed to integrate these values consistently across internal culture and daily operations.

SDG 17: Partnerships for the Goals

SONELGAZ has cultivated meaningful partnerships with international stakeholders (e.g. GE Vernova, French Development Agency), regional networks (e.g. African energy institutes),

and national institutions (e.g. Ministry of Energy, National Youth Council). These collaborations are designed to support both infrastructure and knowledge transfer, directly reflecting the objectives of SDG 17.

Summary

The analysis confirms that SONEGGAZ's CSR strategy is significantly aligned with at least nine of the UN Sustainable Development Goals. The company's strongest contributions are evident in SDG 4 (Education), SDG 7 (Clean Energy), SDG 9 (Innovation), and SDG 13 (Climate Action). Other areas such as health, inequality reduction, and institutional transparency are present but require deeper integration and communication within the organization. The next and final section will address these remaining gaps and propose recommendations for enhancing SONEGGAZ's CSR performance in alignment with national and global sustainability priorities.

Table 18: Summary of SONEGGAZ's CSR Alignment with Key Sustainable Development Goals

SDG	Title	Key Contributions by SONEGGAZ	Strength of Alignment
3	Good Health and Well-Being	Support for cancer care, rehabilitation centers, disability groups, health-focused community aid	Moderate
4	Quality Education	3 training institutes, 500k+ training hours/year, African Network of Energy Excellence	Strong
7	Affordable and Clean Energy	15 GW renewables plan, 2,000 MW tenders, solar infrastructure, EV charger network	Very Strong
8	Decent Work and Economic Growth	Capacity building, formal labor agreements, job creation through renewable and manufacturing projects	Strong
9	Industry, Innovation, and Infrastructure	GE Vernova partnership for grid equipment manufacturing, smart energy infrastructure upgrades	Strong
10	Reduced Inequalities	Bill payment aid, rural school support, work with Algerian Red Crescent	Moderate
13	Climate Action	Clean energy transition, GHG reduction focus, Earth Hour campaigns	Very Strong
16	Peace, Justice, and Strong Institutions	Governance Charter adoption, transparency and ethical management frameworks	Moderate
17	Partnerships for the Goals	Local + international partnerships (GE, AFD, Red Crescent, Youth Council), capacity development and technology transfer	Strong

This table synthesizes SONEGGAZ's key CSR activities and evaluates their alignment with selected UN Sustainable Development Goals. The strength of alignment is based on evidence from internal documents, public communications, and empirical findings gathered during the study.

3. Challenges, Limitations, and Strategic Recommendations for Enhancing CSR Performance:

3.1. Challenges identified:

The empirical findings revealed several key challenges that limit the effectiveness and internal coherence of SONELGAZ's Corporate Social Responsibility (CSR) strategy. While the company has clearly institutionalized CSR at the policy and strategic levels, important gaps persist in terms of implementation, communication, and employee engagement. These challenges were identified through both the employee survey and qualitative document analysis.

1. Limited Internal Awareness

Despite SONELGAZ's significant CSR investments and external visibility, only 46.7% of employees surveyed were aware of the company's CSR programs, and 50% reported never receiving any CSR-related communication. This highlights a disconnect between the organization's external CSR visibility and its internal diffusion. As a result, many employees lack a clear understanding of the company's sustainability priorities and their role in contributing to them.

2. Low Participation and Engagement

Only 13.3% of survey respondents reported participating in a CSR initiative, indicating that employee involvement in CSR activities is minimal. This is especially concerning for a company that positions CSR as a pillar of its corporate identity. The lack of participation could stem from insufficient opportunities, unclear communication, or the absence of formal mechanisms to include employees in CSR planning and implementation.

3. Communication and Feedback Gaps

The absence of structured internal communication channels for CSR weakens the feedback loop between employees and management. While SONELGAZ publishes detailed activity reports and communicates externally through press releases and public events, internal dissemination appears limited. Moreover, the open-ended survey responses revealed that employees desire more transparency, awareness campaigns, and channels to contribute ideas.

4. Perceptual Misalignment

There is a visible gap between the company's formal CSR commitments and employee perceptions of their effectiveness. For example, while SONELGAZ positions itself as a leader in sustainable energy, 46.7% of employees reported being unsure or unaware of the company's SDG alignment. Similarly, a significant number of respondents expressed doubts about the impact of CSR on the environment or

community. This misalignment may reduce employee motivation and the credibility of CSR efforts within the organization.

5. Fragmented Implementation:

While SONELGAZ's CSR strategy is comprehensive on paper, implementation appears fragmented across departments. This is suggested by the lack of consistent employee experiences across professional categories and divisions, as well as by suggestions calling for clearer CSR structures and objectives. Without cross-functional coordination, CSR risks becoming a set of isolated programs rather than a unified, embedded strategy.

3.2. Research Limitations

While this study provides valuable insights into SONELGAZ's Corporate Social Responsibility (CSR) programs and their alignment with sustainable development goals (SDGs), several methodological and contextual limitations must be acknowledged to properly frame the scope, findings, and interpretive depth of the research.

1. Access to Data Sources

A major limitation was the restricted availability of official CSR documentation. SONELGAZ does not currently publish a dedicated CSR or sustainability report. The only accessible institutional document was the 2023 Activity Report, which, while informative, does not cover a longitudinal period nor provide consistent performance metrics across years. This limited the ability to assess trends or organizational CSR evolution over time. In the absence of multi-year CSR reports or detailed sustainability disclosures, the qualitative analysis relied on a combination of the 2023 Activity Report, the 2024 Collective Agreement, the Governance Charter, the ESST Policy, and selected press and media articles from official and industry sources. Although these documents offered rich thematic material, they do not provide a fully comprehensive or systematic picture of SONELGAZ's CSR implementation or its alignment with SDG targets.

2. Methodological Constraints

The research adopted a mixed-methods design that combined a qualitative document analysis with a quantitative employee survey. While this triangulation added robustness to the findings, several constraints emerged. The qualitative analysis was based solely on secondary sources, as no interviews, focus groups, or internal managerial insights were accessible. This limited the ability to explore deeper organizational dynamics, decision-making processes, or informal CSR practices within departments.

The quantitative phase, while useful in capturing employee perceptions, was based on a relatively small, non-random sample of 30 employees from the SONELGAZ Distribution Company of Tiaret. Although participants were drawn from diverse departments and included both cadre and maîtrise categories, the limited sample size restricts the generalizability of findings across the broader SONELGAZ workforce. In addition, voluntary participation raises the possibility of self-selection bias, where employees with greater CSR awareness or interest were more likely to respond.

3. Temporal and Language Limitations

The study's scope was temporally concentrated on the period 2023–2024, reflecting both the timing of the data collection and the limited availability of recent institutional documentation. Given the evolving nature of CSR practices, the absence of historical reports or long-term datasets constrained the ability to conduct longitudinal or trend-based analysis. Furthermore, Algeria's bilingual context (Arabic and French) meant that several documents required translation and interpretation. Although care was taken to preserve original meanings, minor linguistic nuances may have influenced the analysis of institutional content and media coverage.

4. Incomplete SDG Mapping

While SONEGGAZ has made public declarations of its commitment to sustainable development, explicit references to specific SDGs remain limited in its published materials. Many CSR initiatives are described in terms of general community or environmental benefit, without systematic alignment to measurable SDG indicators. As a result, linking SONEGGAZ's actions to the SDG framework required interpretive analysis based on inferred program outcomes, rather than concrete reporting or targets.

5. Narrow Stakeholder Focus

The study centered primarily on internal perceptions particularly those of employees and institutional documents. It did not include direct input from external stakeholders such as local communities, environmental NGOs, civil society organizations, or customers. Including such voices would have offered a more balanced and holistic assessment of the perceived legitimacy, impact, and inclusivity of SONEGGAZ's CSR strategy.

3.3. Research Perspectives and Avenues for Future Study:

Building on the insights and constraints outlined in this research, several perspectives can be proposed to guide future academic and professional inquiry into Corporate Social Responsibility (CSR) at SONEGGAZ and similar state-owned enterprises operating in the energy sector:

1. Expand Stakeholder Representation

Future studies could incorporate the perspectives of external stakeholders, such as community beneficiaries, local government officials, civil society organizations, and customers. Including these groups would enable a more comprehensive analysis of CSR legitimacy, impact, and responsiveness to societal expectations. Qualitative methods such as semi-structured interviews, participatory focus groups, or ethnographic fieldwork could be employed to enrich these insights.

2. Adopt a Longitudinal Design

A longitudinal approach would allow researchers to track the evolution of SONEGGAZ's CSR initiatives over time particularly in relation to sustainability goals, national policy shifts, and internal restructuring. Comparing data from multiple years (e.g., 2023–2028) could help assess whether CSR activities are institutionalized

or merely reactive, and whether employee engagement and SDG alignment improve in the long run.

3. Deepen the Quantitative Approach

While this study used correlation analysis and reliability testing, future research could build on this by employing inferential statistics such as regression analysis or structural equation modeling (SEM) to explore causality between variables. Larger and stratified samples would also increase the statistical power and generalizability of findings.

4. Conduct Comparative Studies

Comparative research could be conducted across national energy companies in the MENA region (e.g., SONELGAZ, ONEE in Morocco, EGAS in Egypt, or TAQA in the UAE) to assess CSR governance models, reporting standards, stakeholder engagement strategies, and environmental outcomes. Such comparisons would highlight regional best practices and reveal how political, economic, and cultural contexts shape CSR performance.

3.4. Strategic Recommendations for Enhancing CSR Performance:

Based on the findings of this study both quantitative and qualitative this section outlines strategic recommendations for SONELGAZ to improve the effectiveness, visibility, and alignment of its Corporate Social Responsibility (CSR) practices. These recommendations are designed to strengthen internal engagement, support alignment with the Sustainable Development Goals (SDGs), and enhance the overall impact of CSR within Algeria's evolving energy and sustainability landscape.

- **Develop a Formal CSR Communication Strategy**

The survey revealed that 50% of employees had never received information about SONELGAZ's CSR programs, despite their extensive scope. To address this gap, the company should establish a structured internal communication plan using newsletters, digital bulletins, staff meetings, and intranet updates. Clear and regular communication would improve awareness, reinforce strategic alignment, and encourage greater employee involvement in CSR initiatives.

- **Create Inclusive CSR Participation Mechanisms**

Only 13.3% of employees reported participating in a CSR activity. SONELGAZ should design inclusive mechanisms to engage employees across all departments and socio-professional categories. This could include CSR "champions" in each unit, staff volunteering programs, cross-departmental CSR projects, and employee recognition for contributions. Involving employees in planning and implementation would enhance ownership, morale, and alignment with SDG 8 (Decent Work).

- **Integrate CSR Metrics into Employee Training and Evaluation**
 To reinforce the company’s sustainability culture, CSR values and knowledge should be integrated into onboarding programs, periodic staff training, and performance evaluations. Employees who understand how their roles contribute to CSR and SDGs are more likely to internalize and act on these values. Specialized training modules in environmental responsibility, ethics, and stakeholder engagement would be especially valuable.
- **Strengthen CSR-SDG Alignment in Public and Internal Reports**
 While SONELGAZ’s CSR programs clearly support multiple SDGs, explicit alignment is often missing in official documents. The company should include SDG icons, labels, or dedicated sections in its reports, linking each CSR initiative directly to relevant goals. This would improve transparency, allow better tracking of progress, and strengthen SONELGAZ’s positioning as a sustainability leader.
- **Enhance Feedback Loops and Stakeholder Dialogue**
 Survey responses revealed a desire for more transparency, awareness, and channels for employee input. SONELGAZ could establish regular CSR consultation sessions, feedback surveys, and open forums both internally and with external stakeholders (e.g., civil society groups, local communities, academic experts). This would support SDG 16 (Inclusive Institutions) and SDG 17 (Partnerships for the Goals), while refining program design and social legitimacy.
- **Institutionalize Impact Measurement Tools**
 To evaluate CSR effectiveness, SONELGAZ should adopt standardized tools for social and environmental impact measurement. This may include SDG impact indicators, stakeholder satisfaction metrics, and outcome-based tracking frameworks. Regular monitoring and evaluation would not only improve accountability, but also help prioritize resources toward the most impactful programs.
- **Localize CSR in Regional and Operational Units**
 CSR implementation should be decentralized and responsive to local needs. SONELGAZ can adapt programs to fit regional contexts by empowering operational subsidiaries and regional managers with autonomy and CSR budgets. Tailoring CSR to local realities would increase relevance, visibility, and responsiveness—particularly in southern provinces where major energy infrastructure is expanding.

In summary, while SONELGAZ demonstrates a strong CSR foundation, these strategic recommendations can help deepen internal engagement, close communication gaps, and enhance the alignment and impact of CSR activities across all levels of the organization. By embracing these actions, the company can consolidate its leadership role in sustainable energy development while also reinforcing its social responsibility and institutional credibility.

Conclusion:

The analysis presented in this section highlighted key insights into SONELGAZ's CSR programs from both employee perceptions and institutional documentation. The survey data demonstrated a moderate level of CSR awareness among employees, with mixed engagement and divided views on the perceived effectiveness of these initiatives. Hypotheses H1, H2, and H3 were supported through statistically significant correlations, confirming that higher awareness is linked to stronger engagement and that perceived effectiveness is associated with greater satisfaction regarding CSR's social and environmental impact. While Hypothesis H4 was exploratory, employee suggestions indicated recurring themes such as transparency, employee well-being, and renewable energy providing practical guidance for enhancing SONELGAZ's CSR strategy.

Complementing these findings, the qualitative analysis of SONELGAZ's 2023 Activity Report, collective agreement, governance documents, and public media coverage demonstrated a growing institutional commitment to sustainable development. The company's efforts in rural electrification, energy transition, health and education, and stakeholder partnerships reflect a strategic CSR approach aligned with national goals and selected SDGs. However, limitations in transparency, stakeholder communication, and sustainability reporting remain evident and reflect opportunities for improvement.

Together, these empirical results provide a multi-dimensional understanding of how CSR is both perceived and practiced within SONELGAZ, and form the foundation for the research limitations, future perspectives, and strategic recommendations that follow.

Conclusion of chapter three:

This chapter has delivered a comprehensive empirical analysis of SONEGGAZ's CSR practices, offering evidence-based insights into their design, implementation, and perceived impact. Through the integration of qualitative document review and quantitative survey analysis, it has provided a holistic assessment of how CSR is institutionalized and experienced within SONEGGAZ, and how these initiatives align with sustainable development principles.

The findings confirm that SONEGGAZ demonstrates a strong institutional commitment to CSR, with programs spanning social inclusion, environmental stewardship, employee welfare, and governance transparency. The analysis of internal documents, including the 2023 Activity Report, the April 2024 Collective Agreement, the ESST Policy, and the Governance Charter, revealed that the company has strategically embedded CSR across its operational and ethical frameworks. Media sources and stakeholder feedback also reflect a generally positive, though occasionally critical, public image of the company's social role and sustainability ambitions.

Quantitative data from the employee survey supported the study's four hypotheses. Strong correlations were found between CSR awareness, engagement, and perceived effectiveness, while open-ended responses suggested practical avenues for improvement, such as increased transparency, training, and renewable energy initiatives. The reliability of the measurement scales was confirmed using Cronbach's Alpha, further strengthening the internal consistency of the analysis.

Nonetheless, the research also highlighted several areas for development. Limited CSR communication, lack of employee involvement in decision-making, and inconsistencies between institutional discourse and employee perceptions signal opportunities for strategic enhancement. The methodological limitations including a small, non-random sample size and lack of access to certain internal reports do not undermine the findings but rather point to directions for future research and broader stakeholder engagement.

In sum, Chapter three has demonstrated that CSR at SONEGGAZ is not only a policy ambition but also a lived organizational process with tangible strengths and actionable gaps. These insights pave the way for targeted recommendations and a critical discussion on the future of CSR in the Algerian energy sector, presented in the final chapter.

General conclusion:

This thesis set out to evaluate the effectiveness of Corporate Social Responsibility (CSR) programs at SONELGAZ and their alignment with sustainable development principles, with particular attention to internal employee perceptions and organizational practices. In a context where CSR has become a strategic imperative for companies, operating in sectors with high environmental and social impact such as energy this study contributes meaningful insights by combining theoretical inquiry with empirical investigation.

The first part of the thesis established a robust conceptual foundation. Through an in-depth review of CSR definitions, theoretical frameworks (including Stakeholder Theory and Carroll's Pyramid), and CSR's evolving role in organizational strategy, the study clarified the strategic positioning of CSR within modern corporate governance. Simultaneously, the sustainable development paradigm was explored in its historical, environmental, and policy dimensions, emphasizing the SDGs as a guiding framework. The interconnection between CSR and sustainable development was analytically framed as a symbiotic relationship, where CSR is both a contributor to and an operational pathway toward achieving long-term sustainability goals.

The second part focused on the empirical case of SONELGAZ, Algeria's state-owned energy group, selected due to its strategic national role and expanding CSR engagement. The mixed-methods methodology included a structured employee survey and a qualitative analysis of internal documents such as the 2023 Activity Report, the 2024 Collective Agreement, and the Governance Charter. Quantitative findings revealed varying degrees of employee awareness, moderate engagement, and mixed perceptions of CSR effectiveness. Hypotheses testing confirmed that greater awareness was positively correlated with perceived effectiveness, while employee suggestions offered insightful guidance for improving transparency, communication, and alignment with social needs.

The qualitative analysis demonstrated that SONELGAZ has made substantial investments in social programs, environmental transition, and governance reforms. These efforts ranging from renewable energy projects to health and education initiatives were mapped against SDG objectives, particularly SDG 3 (Health), SDG 4 (Education), SDG 7 (Clean Energy), SDG 10 (Reduced Inequalities), and SDG 13 (Climate Action). However, the analysis also highlighted gaps in strategic communication, limited stakeholder engagement, and the absence of formal CSR and sustainability reporting, which weaken the overall coherence and visibility of the company's CSR agenda.

In light of these findings, the study offers several strategic recommendations, including the development of a formal CSR strategy, institutionalized monitoring and evaluation systems, expanded communication platforms, and enhanced employee involvement in CSR planning. It also advocates for the establishment of integrated sustainability reporting aligned with SDGs, which would reinforce SONELGAZ's credibility and stakeholder trust.

Ultimately, this thesis demonstrates that CSR, when integrated with strategic intent and participatory governance, can serve as a lever for sustainable transformation. For SONELGAZ and for energy companies more broadly CSR is not merely a philanthropic obligation but a structural asset that can shape environmental resilience, social cohesion, and long-term corporate legitimacy.

Research Perspectives

Building upon the current study, future research may:

- Expand the scope to include external stakeholders such as community beneficiaries, NGOs, and customers.
- Conduct longitudinal assessments of SONEGAS's evolving CSR strategy over time.
- Compare SONEGAS's CSR framework with other public utilities in the MENA region to assess regional best practices.
- Investigate the role of digital transformation and innovation in enhancing CSR performance and stakeholder engagement.

In conclusion, this thesis highlights the transformative potential of CSR as a strategic tool in promoting inclusive and sustainable development. It invites continued inquiry, cross-sector collaboration, and institutional innovation to ensure that corporate responsibility evolves into corporate sustainability.

Annex 01_ Employee Survey

Questionnaire: Évaluer la Responsabilité Sociétale de l'Entreprise (RSE) chez SONELGAZ

Ce questionnaire vise à comprendre comment les employés perçoivent les activités RSE de SONELGAZ. Vos réponses aideront à améliorer les programmes RSE et leur contribution au développement durable. Le questionnaire est anonyme et prend environ 7 minutes.

SECTION 1 : Connaissances générales sur la RSE

1. Avez-vous déjà entendu parler de la RSE ?

- ☐ Oui
- ☐ Non
- ☐ Pas sûr(e)

2. Savez-vous que SONELGAZ a des programmes RSE ?

- ☐ Oui
- ☐ Non
- ☐ Je ne sais pas

3. Où avez-vous entendu parler des activités RSE de SONELGAZ ? (Cochez tout ce qui s'applique)

- ☐ Emails ou bulletins internes
- ☐ Réunions de l'entreprise
- ☐ Collègues
- ☐ Réseaux sociaux ou site web
- ☐ Je n'en ai jamais entendu parler

SECTION 2 : Participation et engagement

4. Avez-vous déjà participé à une activité RSE organisée par SONELGAZ ?

- ☐ Oui
- ☐ Non
- ☐ Je ne sais pas

5. À quelle fréquence les activités RSE sont-elles communiquées aux employés ?

- ☐ Régulièrement
- ☐ Parfois

☐ Rarement

☐ Jamais

6. Pensez-vous que les employés peuvent proposer des idées d'activités RSE ?

☐ Oui

☐ Non

☐ Je ne sais pas

SECTION 3 : Impact et perception

7. Selon vous, quelle est l'importance de la RSE pour le succès de SONELGAZ ?

☐ Très importante

☐ Importante

☐ Peu importante

☐ Pas du tout importante

8. Pensez-vous que les activités RSE de SONELGAZ aident la communauté ou l'environnement ?

☐ Oui, beaucoup

☐ Un peu

☐ Très peu

☐ Pas du tout

9. Comment évaluez-vous globalement les efforts de l'entreprise en matière de RSE ?

☐ Excellents

☐ Bons

☐ Acceptables

☐ Insuffisants

☐ Je ne sais pas

SECTION 4 : RSE et Objectifs de Développement Durable

10. Pensez-vous que les activités RSE de SONELGAZ soutiennent certains de ces objectifs ?

☐ Oui

☐ Non

☐ Je ne sais pas

11. Selon vous, quels domaines méritent plus d'attention ? (Choisissez jusqu'à 3 réponses)

- ☐ Environnement (ex. : pollution, consommation d'énergie)
- ☐ Bien-être des employés
- ☐ Sécurité au travail
- ☐ Développement communautaire
- ☐ Transparence et éthique
- ☐ Éducation et formation

SECTION 5 : Suggestions

12. Que peut faire SONELGAZ pour améliorer sa stratégie RSE ? (Réponse libre)

Annex 2: Raw SPSS Output – Descriptive Statistics

Statistiques										
		Have you ever heard of CSR?	Did you know SONELGAZ has CSR programs?	Have you participated in a CSR activity?	Frequency of CSR communication	Can employees propose CSR ideas?	Importance of CSR for SONELGAZ	Does CSR help the community/environment?	Evaluation of CSR efforts	Does CSR support SDGs?
N	Valide	30	30	30	30	30	30	30	30	30
	Manquant	0	0	0	0	0	0	0	0	0

Q3: Emails or bulletins	Q3: Company meetings	Q3: Colleagues	Q3: Social media or website	Q3: Never heard about them	Q11: Environment	Q11: Employee well-being	Q11: Workplace safety	Q11: Community development	Q11: Transparency and ethics	Q11: Education and training
30	30	30	30	30	30	30	30	30	30	30
0	0	0	0	0	0	0	0	0	0	0

Q11: Education and training	Q12: Mentioned transparency	Q12: Mentioned community support	Q12: Mentioned employee well-being	Q12: Mentioned renewable energy	Q12: Mentioned training	Q12: Mentioned communication or awareness
30	30	30	30	30	30	30
0	0	0	0	0	0	0

Annex 3: SPSS Output – CSR Awareness Questions (Descriptive Statistics)

Have you ever heard of CSR?

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	Yes	14	46,7	46,7	46,7
	No	12	40,0	40,0	86,7
	Not sure / I don't know	4	13,3	13,3	100,0
	Total	30	100,0	100,0	

Did you know SONELGAZ has CSR programs?

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	Yes	13	43,3	43,3	43,3
	No	11	36,7	36,7	80,0
	Not sure / I don't know	6	20,0	20,0	100,0
	Total	30	100,0	100,0	

Frequency of CSR communication

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	Regularly	4	13,3	13,3	13,3
	Sometimes	6	20,0	20,0	33,3
	Rarely	5	16,7	16,7	50,0
	Never	15	50,0	50,0	100,0
	Total	30	100,0	100,0	

Can employees propose CSR ideas?

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	Yes	12	40,0	40,0	40,0
	No	8	26,7	26,7	66,7
	Not sure / I don't know	10	33,3	33,3	100,0
	Total	30	100,0	100,0	

Annex 04_ Frequency of Themes in Employee Suggestions for CSR Improvement

Q12: Mentioned transparency

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	Not Mentioned	25	83,3	83,3	83,3
	Mentioned	5	16,7	16,7	100,0
	Total	30	100,0	100,0	

Q12: Mentioned community support

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	Not Mentioned	25	83,3	83,3	83,3
	Mentioned	5	16,7	16,7	100,0
	Total	30	100,0	100,0	

Q12: Mentioned employee well-being

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	Not Mentioned	20	66,7	66,7	66,7
	Mentioned	10	33,3	33,3	100,0
	Total	30	100,0	100,0	

Q12: Mentioned renewable energy

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	Not Mentioned	24	80,0	80,0	80,0
	Mentioned	6	20,0	20,0	100,0
	Total	30	100,0	100,0	

Q12: Mentioned training

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	Not Mentioned	26	86,7	86,7	86,7
	Mentioned	4	13,3	13,3	100,0
	Total	30	100,0	100,0	

Q12: Mentioned communication or awareness

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	Not Mentioned	24	80,0	80,0	80,0
	Mentioned	6	20,0	20,0	100,0
	Total	30	100,0	100,0	

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