



Corporate Awareness and Compliance with Sustainability Regulations in Mexico

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Abstract. Sustainability regulations have become a strategic requirement for companies seeking to maintain competitiveness, transparency, and institutional legitimacy in increasingly regulated markets. However, many organizations in Mexico still face limited awareness of the regulatory frameworks that guide sustainability reporting and compliance. This study analyzes the main national and international sustainability regulations that Mexican companies must understand and apply to prepare standardized corporate sustainability disclosures. A qualitative, descriptive, and documentary research design was used, based on the review of institutional frameworks such as the 2030 Agenda, the Sustainable Development Goals (SDGs), the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the Corporate Sustainability Reporting Directive (CSRD), the International Sustainability Standards Board (ISSB), and the Sustainability Information Standards (NIS) issued by the Mexican Council for Financial and Sustainability Reporting Standards (CINIF). The findings propose an analytical taxonomy that links internal organizational areas with the SDGs and identifies three key dimensions of materiality: financial, impact, and dynamic. The study also systematizes greenwashing practices that organizations must avoid to strengthen accountability and stakeholder trust. The results suggest that sustainability compliance should not be understood only as a legal obligation but as a strategic mechanism for risk management, business continuity, corporate governance, and long-term competitiveness in the Mexican business context.

Keywords: Sustainability regulations; corporate compliance; sustainability reporting; ESG; materiality; Mexico.

1 Introduction

Growing pressure from investors, regulators, financial institutions, and society has transformed sustainability from a voluntary corporate initiative into a strategic and regulatory imperative. Organizations are now expected not only to generate economic value but also to demonstrate their environmental, social, and governance (ESG) performance through transparent, reliable, and standardized sustainability disclosures. Consequently, sustainability reporting has evolved from a communication tool into a fundamental mechanism for corporate governance, risk management, and long-term competitiveness ([1] & [2]).

This transformation has accelerated with the emergence of international regulatory frameworks such as the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the International Sustainability Standards Board (ISSB), and the Corporate Sustainability Reporting Directive (CSRD) of the European Union. Together, these initiatives seek to harmonize sustainability reporting practices, improve the comparability of non-financial information, and strengthen organizational accountability before investors, regulators, and other stakeholders. Furthermore, recent interoperability initiatives between the ISSB, EFRAG, and GRI have reduced duplication and promoted greater consistency among sustainability disclosure standards ([3] & [1]).

In Mexico, this regulatory evolution has gained particular relevance with the implementation of the Sustainability Information Standards, issued by the Mexican Council for Financial and Sustainability Reporting Standards (CINIF), which became effective on January 1, 2025. These standards establish a national framework aligned with international sustainability disclosure requirements, requiring organizations to identify sustainability-related risks and opportunities while strengthening transparency, strategic decision-making, and financial reporting quality ([4] & [1]).

Despite these regulatory advances, many organizations—particularly micro, small, and medium-sized enterprises (MSMEs)—continue to face significant challenges in understanding the scope, interrelationships, and practical implications of the various sustainability frameworks. Existing studies generally examine individual reporting standards or specific ESG dimensions; however, limited research has integrated the principal international and Mexican regulatory frameworks into a comprehensive model capable of supporting both regulatory compliance and strategic implementation. This fragmentation makes it difficult for organizations to understand how sustainability regulations complement one another and how they can be incorporated into organizational management ([5] & [6]).

To address this gap, this study conducts a documentary analysis of the principal sustainability regulations applicable in Mexico by examining both international

and national regulatory frameworks. Furthermore, it develops an integrated analytical taxonomy that associates internal organizational processes with the United Nations Sustainable Development Goals (SDGs), identifies the principal dimensions of sustainability materiality, and systematizes common greenwashing practices that organizations should avoid when preparing sustainability reports. This approach responds to the growing international demand for practical instruments that facilitate the implementation of ESG reporting requirements and strengthen corporate transparency ([7] & [1]).

The contribution of this study is twofold. First, it provides an integrated conceptual framework that facilitates understanding of the convergence between international sustainability standards and the recently adopted Mexican Sustainability Information Standards. Second, it offers organizations a practical reference for strengthening regulatory compliance, improving corporate governance, enhancing stakeholder accountability, and incorporating sustainability into strategic decision-making. Consequently, this research contributes to the academic field of competitiveness and business strategies by demonstrating that sustainability regulations constitute not only a compliance obligation but also a strategic capability that enhances organizational resilience and long-term competitive advantage.

1.1 Problem Statement

Companies play a fundamental role in economic development by generating employment, attracting investment, and creating value for multiple stakeholders. However, they are increasingly exposed to environmental, social, and governance (ESG) risks arising from climate change, regulatory transformation, resource scarcity, and growing stakeholder expectations. These challenges have significantly increased the demand for transparent, comparable, and reliable sustainability information capable of supporting corporate decision-making and reducing organizational risk ([1] & [7]).

The global transition toward mandatory sustainability reporting has substantially modified the regulatory environment in which organizations operate. International frameworks such as the International Sustainability Standards Board (ISSB), the European Union's Corporate Sustainability Reporting Directive (CSRD), and the Global Reporting Initiative (GRI) have established increasingly rigorous disclosure requirements, promoting greater transparency and comparability of non-financial information across jurisdictions. At the same time, investors, financial institutions, and regulators increasingly incorporate ESG performance into investment decisions, financing conditions, and corporate risk assessments ([3] & [2]).

Within this international context, Mexico has entered a new stage of sustainability regulation through the implementation of the Sustainability Information Standards (NIS A-1 and NIS B-1), issued by the Mexican Council for Financial and Sustainability Reporting Standards (CINIF). These standards

establish a conceptual framework and mandatory sustainability indicators intended to standardize ESG disclosures and strengthen the integration of sustainability into corporate reporting. Nevertheless, many organizations continue to face significant challenges in interpreting these new requirements, integrating them into their management systems, and aligning them with internationally recognized reporting frameworks.

Despite the increasing availability of international sustainability standards, there is still limited academic evidence that systematically integrates the principal global regulatory frameworks with the emerging Mexican sustainability regulations into a single analytical model. Existing studies generally focus on individual standards, reporting methodologies, or specific ESG dimensions, providing limited guidance for organizations seeking to understand how these frameworks interact and how they can be strategically implemented within the Mexican business environment. This knowledge gap is particularly relevant for micro, small, and medium-sized enterprises (MSMEs), which often have limited technical, financial, and human resources to address the growing complexity of sustainability reporting requirements. Consequently, the absence of an integrated reference framework may hinder regulatory compliance, reduce the quality and comparability of sustainability disclosures, and increase organizational exposure to financial, operational, and reputational risks. Addressing this challenge requires a comprehensive analysis of the sustainability regulatory landscape that enables Mexican organizations to understand the convergence between international and national standards while facilitating the practical implementation of sustainability reporting as a strategic instrument for corporate governance, business continuity, and long-term competitiveness.

1.2 Justification

The concept of sustainable development has evolved considerably since the publication of the Brundtland Report, which established the need to balance economic growth, environmental protection, and social well-being. During the last decade, sustainability has shifted from being primarily a voluntary corporate initiative to becoming a regulatory and strategic requirement for organizations operating in increasingly demanding global markets. This transformation has been driven by the growing effects of climate change, biodiversity loss, social inequality, and the increasing demand for corporate transparency from investors, governments, financial institutions, and society [7].

Recent international regulatory developments have accelerated the adoption of standardized sustainability reporting frameworks. The International Sustainability Standards Board (ISSB), the Global Reporting Initiative (GRI), the European Union's Corporate Sustainability Reporting Directive (CSRD), and other international initiatives have established common principles to improve the comparability, reliability, and usefulness of sustainability disclosures. These frameworks seek not only to strengthen corporate accountability but also to

facilitate sustainable investment, improve risk management, and support long-term value creation ([1] & [3]).

Within the Mexican context, the implementation of the Sustainability Information Standards issued by the Mexican Council for Financial and Sustainability Reporting Standards (CINIF) represents one of the most significant regulatory changes in corporate reporting in recent years. The adoption of these standards requires organizations to incorporate environmental, social, and governance (ESG) information into their decision-making processes and sustainability reports using standardized criteria that are increasingly aligned with international disclosure requirements ([4] & [8]).

Despite these regulatory advances, organizations continue to face considerable challenges in understanding the relationships among multiple sustainability frameworks and translating regulatory requirements into practical management tools. This situation is particularly relevant for micro, small, and medium-sized enterprises (MSMEs), which generally have fewer technical and financial resources available to implement sustainability reporting systems. Consequently, there is a need for integrative studies capable of synthesizing the principal sustainability regulations into practical analytical frameworks that facilitate regulatory compliance and strategic implementation.

Therefore, this study is justified from three complementary perspectives. From an academic perspective, it contributes to the literature by integrating the principal international and Mexican sustainability regulatory frameworks into a comprehensive analytical model. From a practical perspective, it provides organizations with a structured reference to facilitate compliance with emerging sustainability reporting requirements and strengthen corporate governance. Finally, from a social and economic perspective, the study supports the development of more transparent, resilient, and competitive organizations capable of contributing to the achievement of the United Nations Sustainable Development Goals (SDGs) while responding effectively to the increasing demands of stakeholders and regulatory authorities.

1.3 Research Objectives

1.3.1 General Objective

To analyze the principal national and international sustainability regulatory frameworks that organizations operating in Mexico must understand and implement to strengthen corporate compliance and prepare standardized sustainability reports aligned with current ESG reporting requirements.

1.3.2 Specific Objectives

To examine the convergence between international sustainability reporting frameworks, including the International Sustainability Standards Board (ISSB),

the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the Corporate Sustainability Reporting Directive (CSRD), and the Sustainability Information Standards (NIS) issued by the Mexican Council for Financial and Sustainability Reporting Standards (CINIF).

To develop an integrated analytical taxonomy that associates internal organizational processes with the United Nations Sustainable Development Goals (SDGs), facilitating the strategic implementation of sustainability within organizations.

To identify and systematize the principal dimensions of sustainability materiality and the most common greenwashing practices that organizations should prevent in order to improve transparency, accountability, and regulatory compliance in sustainability reporting.

The research objectives establish the scope and direction of this study; however, achieving these objectives requires addressing a set of guiding questions that frame the documentary analysis and define the focus of the investigation. Accordingly, the following research questions were formulated to examine the regulatory landscape of sustainability reporting in Mexico, explore the convergence between national and international sustainability frameworks, and identify the strategic elements that organizations should consider to strengthen corporate compliance and sustainability reporting practices.

1. What are the principal national and international sustainability regulatory frameworks that organizations operating in Mexico must understand and implement to comply with current sustainability reporting requirements?
2. How can international sustainability reporting frameworks and the Mexican Sustainability Information Standards (NIS) be integrated into an analytical model that facilitates corporate compliance and strategic sustainability management?
3. How can internal organizational processes be aligned with the United Nations Sustainable Development Goals (SDGs), materiality principles, and sustainability reporting practices to strengthen corporate governance, transparency, and long-term competitiveness?

This study contributes to the growing body of knowledge on corporate sustainability by providing an integrated analysis of the principal sustainability regulatory frameworks applicable to organizations operating in Mexico. While previous studies have primarily examined individual reporting standards or specific environmental, social, and governance (ESG) dimensions, this research adopts a comprehensive perspective that examines the convergence between international sustainability reporting frameworks—including the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the International Sustainability Standards Board (ISSB), and the

Corporate Sustainability Reporting Directive (CSRD)—and the recently implemented Sustainability Information Standards issued by the Mexican Council for Financial and Sustainability Reporting Standards (CINIF).

The principal scientific contribution of this study lies in the development of an integrated analytical taxonomy that links internal organizational processes with the United Nations Sustainable Development Goals (SDGs), materiality principles, and sustainability reporting requirements. This framework facilitates a better understanding of how international and national sustainability regulations interact and provides organizations with a structured reference for strengthening corporate compliance and sustainability governance.

From a practical perspective, the study offers organizations, managers, accounting professionals, and decision-makers a systematic guide for interpreting and implementing sustainability regulations within their strategic and operational processes. By integrating the concepts of financial, impact, and dynamic materiality, together with the identification of common greenwashing practices, the proposed framework supports more transparent sustainability reporting, improves organizational accountability, and contributes to more informed decision-making.

Finally, this research contributes to the academic field of Competitiveness and business strategies by demonstrating that sustainability regulations should not be viewed solely as compliance requirements but as strategic capabilities that promote organizational resilience, strengthen corporate governance, improve stakeholder confidence, and enhance long-term business competitiveness. Consequently, the study provides both theoretical and practical insights that may serve as a reference for future research on sustainability reporting and regulatory implementation in emerging economies.

1.4 Theoretical and Contextual Framework

The adoption of the 2030 Agenda for Sustainable Development by the United Nations General Assembly in 2015 established a global framework for addressing the world's most pressing economic, social, and environmental challenges through 17 Sustainable Development Goals (SDGs) and 169 associated targets. Although originally conceived as a public policy agenda, the SDGs have progressively evolved into a strategic reference for organizations, encouraging companies to integrate sustainability into their governance structures, business models, and long-term decision-making processes. Recent assessments indicate that progress toward the SDGs remains insufficient, highlighting the need for stronger collaboration between governments, the private sector, academia, and civil society to accelerate implementation before 2030 [7].

Within the corporate sector, the SDGs have become an essential framework for aligning business strategies with sustainable development priorities. Rather than

being viewed solely as social commitments, the goals increasingly serve as mechanisms for identifying business opportunities, managing sustainability-related risks, promoting innovation, and strengthening organizational resilience. The United Nations Global Compact emphasizes that integrating the SDGs into corporate strategy enables organizations to create long-term value while simultaneously contributing to inclusive economic growth, environmental protection, and social well-being. Consequently, sustainability has become closely associated with competitiveness, responsible investment, and corporate governance [9].

The growing importance of the SDGs has also transformed sustainability reporting practices. Organizations are increasingly expected to demonstrate not only their financial performance but also their contribution to sustainable development through transparent, measurable, and comparable disclosures. In response to these expectations, international reporting frameworks such as the Global Reporting Initiative (GRI), the International Sustainability Standards Board (ISSB), and the European Sustainability Reporting Standards (ESRS) have incorporated sustainability-related indicators that facilitate the measurement of corporate contributions to the SDGs. This convergence has strengthened the role of sustainability reporting as a strategic management tool rather than merely a compliance exercise ([10] & [9]).

From a strategic management perspective, the SDGs provide organizations with a common language for integrating environmental, social, and governance (ESG) considerations into corporate planning. Their implementation supports the identification of material sustainability issues, enhances stakeholder engagement, improves organizational transparency, and contributes to more informed decision-making. Moreover, companies that systematically align their operations with the SDGs are better positioned to anticipate regulatory changes, respond to investor expectations, and strengthen their long-term competitive advantage in increasingly sustainability-oriented markets [11].

Despite their strategic relevance, implementing the SDGs continues to represent a significant challenge, particularly for micro, small, and medium-sized enterprises (MSMEs). Limited financial resources, insufficient technical expertise, fragmented regulatory guidance, and the coexistence of multiple sustainability reporting frameworks frequently hinder effective implementation. These challenges reinforce the need for integrated analytical approaches capable of translating international sustainability principles into practical organizational tools that facilitate regulatory compliance and strategic decision-making. Accordingly, understanding the relationship between the SDGs and the principal sustainability reporting frameworks constitutes an essential step toward strengthening corporate sustainability management. To facilitate this understanding, the following section examines the principal international sustainability reporting frameworks that currently shape corporate sustainability disclosure practices and influence the development of national regulatory

initiatives, including the Sustainability Information Standards (NIS) adopted in Mexico.

2 Research Method

2.1 Integrated Taxonomy Linking Organizational Processes and the Sustainable Development Goals (SDGs)

This study adopted a qualitative research approach based on a descriptive and analytical documentary research design to examine the principal sustainability regulatory frameworks applicable to organizations operating in Mexico. [12] Qualitative research is appropriate when the objective is to understand and interpret complex phenomena through the systematic analysis of non-numerical information. Likewise, documentary research is particularly suitable for studies that seek to examine institutional documents, regulatory frameworks, and official reports in order to generate conceptual interpretations rather than empirical generalizations ([13] & [14]). Accordingly, this methodological approach was considered appropriate because the purpose of the present research was not to evaluate organizational performance empirically but to analyze, compare, and integrate the regulatory and conceptual foundations that currently govern corporate sustainability reporting.

To ensure the relevance and reliability of the documentary evidence, the review focused on official regulations, international sustainability standards, institutional reports, and peer-reviewed scientific literature published between 2020 and 2026, while also incorporating selected foundational documents that remain essential for understanding the historical evolution of sustainability reporting. The primary sources included publications issued by the United Nations (UN), the United Nations Global Compact, the International Sustainability Standards Board (ISSB), the IFRS Foundation, the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the European Financial Reporting Advisory Group (EFRAG), the Corporate Sustainability Reporting Directive (CSRD), the Mexican Council for Financial and Sustainability Reporting Standards (CINIF), as well as recent scientific articles indexed in international academic databases.

Subsequently, the document selection process was conducted through four sequential stages. First, documentary sources related to sustainability reporting, ESG regulation, corporate governance, and sustainability standards were identified. Second, documents were screened according to their institutional authority, scientific relevance, publication date, and direct alignment with the research objectives. Third, the selected documents were examined through qualitative content analysis, a technique that enables the systematic identification of recurring concepts, thematic patterns, and relationships among categories while ensuring analytical rigor ([15] & [16]). Finally, the information was synthesized and organized into analytical categories that facilitated the

comparative evaluation of the principal sustainability frameworks and the development of the analytical taxonomy proposed in this study.

Furthermore, to strengthen the analytical rigor of the investigation, qualitative content analysis was complemented by the historical-logical method. [17], qualitative analysis requires iterative processes of comparison, categorization, interpretation, and synthesis to identify meaningful relationships within the data. In this study, content analysis enabled the systematic comparison of sustainability reporting frameworks, whereas the historical-logical approach facilitated the examination of their evolution from voluntary reporting initiatives toward increasingly standardized and mandatory sustainability disclosure requirements.

To facilitate the understanding of the methodological process and enhance the transparency and reproducibility of the research design, the principal methodological components adopted in this study are summarized in Table 1. The table synthesizes the research approach, design, documentary sources, analytical methods, units of analysis, thematic categories, and methodological references that guided the systematic examination of sustainability regulatory frameworks. Consequently, it provides a comprehensive overview of the procedures followed to ensure methodological rigor and supports the development of the integrated analytical taxonomy proposed in this study.

Table 1. Methodological Framework of the Study.

Methodological Component	Description	Supporting Reference
Research approach	Qualitative	Creswell & Creswell (2023)
Research design	Documentary research	Bowen (2009); Saunders et al. (2023)
Method	Qualitative content analysis	Schreier (2021)
Analytical technique	Comparative analysis	Miles et al. (2020)
Unit of analysis	Sustainability regulatory frameworks	Elaborated by the authors

Note. Prepared by the authors based on Creswell and Creswell ([12], [14], [13], [17], [16] & [15]).

Based on this analytical process, the documentary evidence was organized into five thematic categories: (1) international sustainability regulatory frameworks, (2) the Mexican Sustainability Information Standards (NIS), (3) sustainability materiality approaches, (4) organizational alignment with the Sustainable Development Goals (SDGs), and (5) corporate greenwashing practices. These analytical categories provided the conceptual foundation for constructing the integrated taxonomy proposed in this research while facilitating the interpretation of the convergence between international and national sustainability regulations.

Finally, the findings were synthesized through comparative analysis to identify common regulatory principles, strategic complementarities, and practical implications for organizations operating in Mexico. This integrative analytical process made it possible to develop a comprehensive framework that supports corporate compliance, strengthens sustainability governance, and contributes to the preparation of standardized sustainability reports aligned with current international and national regulatory requirements.

3 Results

The documentary analysis enabled the development of an integrated analytical taxonomy that associates the principal organizational processes with the Sustainable Development Goals (SDGs). The taxonomy constitutes one of the main outcomes of this research because it translates international sustainability principles into an operational framework that organizations can incorporate into their governance structures, strategic planning, and sustainability reporting processes.

As presented in Table 2, each organizational area contributes to specific dimensions of sustainable development through activities that generate economic, social, environmental, and governance value. Rather than considering the SDGs as isolated sustainability objectives, the proposed taxonomy demonstrates that they can be integrated into the organization's value chain, allowing companies to identify how their internal processes contribute to sustainable development while simultaneously strengthening regulatory compliance.

Table 2. Thematic areas linked to the SDGs.

Organizational Area	Directly Linked SDGs
Financial	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17
Industrial	2, 4, 6, 7, 9, 11, 12, 13, 14, 17
Intellectual	3, 6, 7, 10, 12, 13, 14, 16, 17
Human	3, 4, 5, 6, 7, 8, 10, 12, 13, 14, 16, 17
Natural	2, 6, 7, 11, 12, 13, 14, 16, 17
Social-Relational	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

Note. Own elaboration based on the United Nations [18].

For example, strategic management and corporate governance are closely associated with SDGs 16 (Peace, justice, and strong institutions) and 17 (Partnerships for the Goals), reflecting the importance of ethical leadership, institutional transparency, and stakeholder collaboration. Likewise, human resource management contributes directly to SDGs 3 (Good Health and Well-being), 4 (Quality Education), 5 (Gender Equality), and 8 (Decent Work and Economic Growth) by promoting occupational well-being, continuous training, diversity, inclusion, and decent working conditions.

Similarly, operational processes—including production, logistics, procurement, and resource management—support SDGs related to responsible production and environmental sustainability, particularly SDGs 6 (Clean water and sanitation), 7 (affordable and clean energy), 9 (industry, innovation, and infrastructure), 12 (responsible consumption and production), and 13 (climate action). These findings illustrate that sustainability should be embedded throughout the organizational value chain rather than confined to isolated environmental initiatives.

Another relevant finding is that the proposed taxonomy facilitates the identification of organizational responsibilities for sustainability reporting. By explicitly linking each internal process with specific SDGs, organizations can assign responsibilities, establish performance indicators, improve data collection, and strengthen the quality and comparability of sustainability disclosures. Consequently, the taxonomy serves not only as a conceptual framework but also as a practical management instrument that supports regulatory compliance and the preparation of standardized sustainability reports.

Overall, the results indicate that integrating organizational processes with the SDGs provides companies with a structured approach to operationalizing sustainability, strengthening corporate governance, and aligning strategic decision-making with both international sustainability standards and the Mexican Sustainability Information Standards (NIS).

3.1 Sustainability Materiality Framework

The documentary analysis identified three complementary dimensions of materiality that collectively support the preparation of standardized sustainability reports. Rather than considering materiality exclusively from a financial perspective, the analyzed frameworks demonstrate that organizations should simultaneously evaluate the financial implications of sustainability issues, their impacts on society and the environment, and the evolving nature of sustainability-related risks. These dimensions provide organizations with a comprehensive basis for determining which sustainability information should be disclosed.

Table 3. Dimensions of Sustainability Materiality Identified through Documentary Analysis.

Materiality Dimension	Definition	Strategic Implications for Organizations
Financial Materiality	Identifies ESG-related information that may influence financial performance, cash flow, access to financing, enterprise value, and the cost of capital.	Supports investment decisions, financial risk assessment, and compliance with sustainability disclosure requirements.

Materiality Dimension	Definition	Strategic Implications for Organizations
Impact Materiality	Assesses the positive and negative impacts of organizational activities on society, the environment, employees, customers, and other stakeholders.	Promotes accountability, stakeholder engagement, and alignment with the Sustainable Development Goals (SDGs).
Dynamic Materiality	Recognizes that sustainability issues may evolve over time, becoming financially material due to regulatory changes, technological innovation, stakeholder expectations, or market pressures.	Encourages continuous monitoring of emerging ESG risks and proactive strategic decision-making.

Note. Prepared by the authors based on IFRS Foundation ([1], [2], [3] & [4]).

As shown in Table 3, the three dimensions of materiality should be understood as complementary rather than independent perspectives. Financial materiality focuses on the effects of sustainability issues on organizational performance and value creation, whereas impact materiality evaluates the consequences of corporate activities on society and the environment. Dynamic materiality integrates these perspectives by recognizing that sustainability issues evolve over time and may become financially significant due to regulatory developments, stakeholder expectations, or market transformations. Collectively, these dimensions provide organizations with a comprehensive framework for determining the relevance of sustainability information and improving the quality of corporate sustainability reporting.

In contrast, impact materiality extends the analysis beyond financial performance by evaluating the positive and negative effects that organizational activities generate on society, the environment, employees, customers, and other stakeholder groups. This perspective, promoted by the Global Reporting Initiative (GRI) and incorporated into the European Sustainability Reporting Standards (ESRS), recognizes that corporate sustainability should also be assessed according to the organization's external impacts.

The analysis also identified dynamic materiality as an emerging dimension that connects the previous two perspectives. Dynamic materiality recognizes that sustainability issues evolve continuously and may become financially material due to regulatory changes, technological innovation, market transformations, or increasing stakeholder expectations. Consequently, organizations should periodically reassess the relevance of sustainability issues to ensure that their reporting practices remain aligned with the changing regulatory environment.

Overall, the integration of these three dimensions demonstrates that sustainability reporting should be understood as a dynamic and multidimensional process rather than a static compliance exercise. This comprehensive perspective strengthens organizational transparency, improves corporate governance, and facilitates the preparation of sustainability disclosures that are both strategically

relevant and consistent with current international and Mexican sustainability regulations.

3.2 Corporate Greenwashing Typologies

Another significant finding of the documentary analysis was the identification and systematization of the principal greenwashing practices that may undermine the credibility of corporate sustainability reporting. As sustainability disclosure becomes increasingly relevant for investors, regulators, and society, organizations face growing pressure to ensure that the information communicated accurately reflects their environmental, social, and governance (ESG) performance. Consequently, understanding the different forms of greenwashing has become an essential component of corporate compliance and sustainability governance. To facilitate their identification, the documentary analysis classified the principal greenwashing practices according to their communication strategy and potential impact on organizational transparency. Table 4 summarizes the six typologies identified in this study.

Table 4. Corporate Greenwashing Typologies Identified through Documentary Analysis.

Greenwashing Typology	Definition	Potential Organizational Consequences	Recommended Preventive Actions
Greencrowding	Deliberately aligning sustainability efforts with the least ambitious competitors to avoid assuming leadership in ESG initiatives.	Slows organizational innovation, limits ESG performance, and weakens long-term competitiveness.	Establish ambitious sustainability objectives supported by measurable ESG indicators and continuous benchmarking.
Greenlighting	Highlighting a single environmentally friendly initiative while diverting attention from broader unsustainable business practices.	Distorts stakeholder perceptions and reduces the credibility of sustainability disclosures.	Report sustainability performance comprehensively using internationally recognized reporting standards such as GRI or ISSB.
Greenshifting	Shifting responsibility for environmental impacts entirely to consumers instead of assuming corporate accountability.	Weakens stakeholder trust and may generate reputational and regulatory risks.	Clearly disclose organizational responsibilities and corrective actions within sustainability reports.
Greenlabelling	Using misleading environmental labels, certifications, or vague sustainability claims that exaggerate environmental performance.	Increases the likelihood of regulatory scrutiny and reputational damage.	Use only verifiable certifications and evidence-based environmental claims supported by independent verification.

Greenwashing Typology	Definition	Potential Organizational Consequences	Recommended Preventive Actions
Greenrinsing	Frequently modifying sustainability goals before achieving previously established commitments.	Reduces accountability and limits the evaluation of long-term sustainability performance.	Define measurable sustainability objectives, establish monitoring mechanisms, and publicly report progress periodically.
Greenhushing	Intentionally withholding or undercommunicating legitimate sustainability initiatives due to concerns about criticism or accusations of greenwashing.	Limits organizational transparency and reduces stakeholder awareness of genuine sustainability achievements.	Promote transparent communication supported by objective evidence and externally verifiable ESG indicators.

Note. Prepared by the authors based on Delmas and Burbano ([19], [2], [20] & [9]).

The analysis indicates that greenwashing practices extend beyond the dissemination of false environmental claims. Instead, they include more subtle communication strategies that may distort stakeholder perceptions regarding corporate sustainability performance.

For example, greenlighting occurs when organizations emphasize a single environmentally responsible initiative while diverting attention from broader unsustainable practices. Similarly, greenshifting transfers responsibility for environmental impacts entirely to consumers, minimizing the organization's own accountability. Other practices identified include greencrowding, whereby organizations deliberately align their sustainability ambitions with the least demanding competitors to avoid taking leadership positions, and greenlabelling, which involves the use of misleading certifications, vague environmental claims, or visually deceptive sustainability labels.

The documentary review also identified two emerging practices that have received increasing attention in recent years. Greenrinsing refers to the continuous modification of sustainability targets before previously announced commitments are achieved, thereby reducing organizational accountability. Conversely, greenhushing describes situations in which organizations intentionally undercommunicate legitimate sustainability achievements due to concerns about public criticism or accusations of greenwashing.

Collectively, these findings demonstrate that preventing greenwashing requires more than regulatory compliance. Organizations must establish robust governance mechanisms, transparent reporting practices, and effective verification processes that ensure the credibility, comparability, and reliability of sustainability disclosures while strengthening stakeholder confidence and institutional legitimacy.

3.3 Synthesis of Main Findings

The documentary analysis produced three principal findings that collectively contribute to a comprehensive understanding of sustainability regulations applicable to organizations operating in Mexico.

First, the study developed an integrated analytical taxonomy linking internal organizational processes with the Sustainable Development Goals (SDGs). This framework demonstrates that sustainability should not be treated as an isolated corporate function but rather as a cross-cutting management approach capable of integrating environmental, social, governance, and economic considerations into strategic decision-making and corporate reporting.

Second, the analysis identified three complementary dimensions of sustainability materiality—financial, impact, and dynamic materiality—which together provide a multidimensional framework for determining the relevance of sustainability information. These findings highlight that effective sustainability reporting requires organizations to simultaneously evaluate financial implications, societal and environmental impacts, and the evolving nature of sustainability-related risks.

Third, the study systematized six corporate greenwashing typologies that may compromise the credibility of sustainability disclosures. The identification of these practices demonstrates that regulatory compliance alone is insufficient to ensure transparent sustainability reporting. Instead, organizations must establish robust governance mechanisms, evidence-based communication practices, and effective internal controls capable of supporting credible ESG disclosures and strengthening stakeholder confidence.

Taken together, these findings indicate that sustainability regulations have evolved beyond isolated reporting requirements to become integrated management instruments that influence corporate governance, strategic planning, organizational transparency, and long-term competitiveness. Consequently, the results provide the analytical foundation for examining the broader strategic implications of sustainability regulations for business competitiveness in Mexico, which are discussed in the following section.

4 Discussion

4.1 Sustainability Regulations as a Strategic Source of Competitiveness

The findings of this study indicate that sustainability regulations have evolved from compliance-oriented requirements into strategic management instruments that strengthen corporate governance, organizational resilience, and long-term value creation. The integrated analytical taxonomy, together with the multidimensional materiality framework and the systematization of greenwashing typologies, suggests that sustainability reporting should be embedded within organizational strategy rather than managed as a stand-alone

regulatory obligation. This interpretation is consistent with the growing body of literature recognizing sustainability as a source of competitive advantage through improved governance, transparency, and strategic decision making ([1] & [21]).

The proposed taxonomy further extends previous research by demonstrating that sustainability can be operationalized through the alignment of organizational processes with the Sustainable Development Goals (SDGs). Rather than representing an additional administrative burden, the integration of sustainability into strategic planning enables organizations to improve stakeholder engagement, anticipate regulatory changes, and strengthen organizational resilience. This interpretation is consistent with international evidence showing that sustainability-oriented governance frameworks improve both ESG disclosure quality and organizational performance ([21] & [1]).

Another important finding concerns the incorporation of financial, impact, and dynamic materiality into a single analytical framework. While traditional reporting models primarily emphasized financial performance, the present results support the view that organizational value increasingly depends on the interaction between financial outcomes, sustainability impacts, and emerging ESG-related risks. This multidimensional perspective reinforces recent developments promoted by the International Sustainability Standards Board (ISSB), which emphasize the integration of sustainability-related information into enterprise value creation and long-term corporate governance [1].

Finally, the identification of six corporate greenwashing typologies reinforces the argument that the credibility of sustainability reporting depends not only on regulatory compliance but also on transparent, verifiable, and consistent communication. As sustainability disclosure requirements become more rigorous, organizations that fail to ensure the reliability of ESG information face increasing reputational and regulatory risks. Consequently, preventing greenwashing should be regarded as an essential governance mechanism that strengthens stakeholder confidence and supports long-term organizational competitiveness ([20] & [2]).

4.2 Corporate Governance and ESG Reporting

The findings of this study confirm that corporate governance is a fundamental driver of effective sustainability reporting. The proposed analytical taxonomy demonstrates that successful sustainability management requires governance structures capable of integrating environmental, social, and governance (ESG) considerations into strategic planning, decision-making, and organizational management. Consequently, sustainability reporting should be understood not merely as a disclosure requirement but as a governance mechanism that strengthens transparency, accountability, and long-term value creation. This interpretation is consistent with the growing body of evidence demonstrating that organizations with stronger governance structures achieve higher-quality ESG disclosure and better organizational performance ([21] & [1]).

These findings are further supported by recent studies showing that mandatory sustainability reporting has expanded the responsibilities of boards of directors and senior management. According to Vitale et al. [22], organizations integrating ESG considerations into governance, risk management, and strategic planning improve both sustainability performance and disclosure quality. Similarly, the results of this study suggest that the effective implementation of the Mexican Sustainability Information Standards (NIS) depends on governance mechanisms that coordinate sustainability responsibilities across finance, operations, human resources, compliance, and risk management functions, rather than assigning them to isolated departments.

Unlike previous studies that primarily examine individual sustainability standards, this research contributes an integrated governance perspective by linking organizational processes, sustainability materiality, reporting requirements, and the Sustainable Development Goals (SDGs) within a unified analytical framework. From a practical standpoint, this approach provides organizations with a structured basis for strengthening ESG governance, improving the reliability of sustainability disclosures, facilitating compliance with both international and Mexican regulatory frameworks, and enhancing long-term organizational resilience and competitiveness.

4.3 Practical Implications for Mexican Organizations

The results of this study have significant practical implications for organizations operating in Mexico, particularly in light of the recent implementation of the Sustainability Information Standards (NIS) and the increasing convergence between national and international sustainability reporting frameworks. The integrated analytical taxonomy developed in this research provides organizations with a structured framework for embedding sustainability into strategic planning, governance, and operational management. Consequently, sustainability reporting should be viewed not only as a compliance requirement but also as a strategic capability that enhances organizational adaptability and long-term competitiveness ([1] & [21]).

A key implication concerns organizational decision-making. The findings suggest that integrating sustainability into core business processes enables organizations to improve risk management, strengthen operational efficiency, and anticipate evolving regulatory requirements. This interpretation is consistent with recent studies indicating that organizations with mature ESG strategies achieve greater resilience and stronger long-term performance because sustainability considerations become embedded within strategic planning rather than remaining isolated reporting activities ([22] & [23]).

The study also highlights the growing importance of transparent sustainability reporting for strengthening stakeholder confidence and facilitating access to sustainable finance. Investors, financial institutions, and regulators increasingly

rely on reliable and comparable ESG information when evaluating organizational performance and investment decisions. Accordingly, organizations capable of producing credible sustainability disclosures supported by robust governance mechanisms and internationally recognized reporting standards are better positioned to improve corporate reputation, reduce information asymmetry, and enhance long-term competitiveness ([20] & [2]).

These implications are particularly relevant for Mexican micro, small, and medium-sized enterprises (MSMEs), which frequently face limited financial, technological, and human resources for implementing sustainability initiatives. In this context, the analytical framework proposed in this study offers a practical guide for interpreting sustainability regulations, coordinating organizational responsibilities, and strengthening standardized sustainability reporting. Consequently, the framework contributes not only to regulatory compliance but also to organizational learning, innovation, and the development of sustainable competitive advantages within an increasingly demanding business environment.

5 Conclusions

This study analyzed the principal national and international sustainability regulatory frameworks applicable to organizations operating in Mexico and examined their implications for corporate governance, sustainability reporting, and long-term competitiveness. The documentary analysis demonstrated that sustainability regulations have evolved beyond compliance-oriented requirements to become strategic management instruments that support organizational transparency, risk management, and value creation. In particular, the convergence between international frameworks—including the Global Reporting Initiative (GRI), the International Sustainability Standards Board (ISSB), the Corporate Sustainability Reporting Directive (CSRD), and the Mexican Sustainability Information Standards (NIS)—reflects the global transition toward more harmonized, comparable, and decision-useful sustainability reporting systems.

One of the principal contributions of this research is the development of an integrated analytical taxonomy that links organizational processes with the Sustainable Development Goals (SDGs), the multidimensional concept of sustainability materiality, and corporate reporting requirements. Unlike previous studies that generally analyze sustainability standards independently, the framework proposed in this study provides an integrated perspective that facilitates the interpretation and implementation of sustainability regulations within organizational management systems ([22] & [21]). Furthermore, the identification of financial, impact, and dynamic materiality, together with the systematization of six corporate greenwashing typologies, extends current knowledge by providing practical tools that support more transparent and reliable sustainability reporting ([23] & [24]).

From a practical perspective, the findings suggest that organizations should incorporate sustainability into strategic planning, governance structures, and operational decision-making rather than treating sustainability reporting solely as a regulatory obligation. The proposed framework may assist organizations in strengthening ESG governance, improving stakeholder confidence, facilitating compliance with national and international reporting requirements, and enhancing long-term organizational resilience and competitiveness. These implications are particularly relevant for Mexican micro, small, and medium-sized enterprises (MSMEs), which face increasing regulatory demands while operating under resource constraints ([3] & [1]).

Despite these contributions, the study presents certain limitations. First, the research adopted a qualitative documentary approach based on the analysis of regulatory frameworks, institutional documents, and scientific literature; therefore, the proposed analytical taxonomy has not yet been empirically validated within organizations. Second, the study focused primarily on the Mexican regulatory context, which may limit the direct generalization of the findings to other institutional and regulatory environments.

Future research should empirically evaluate the applicability of the proposed framework across different economic sectors and organizational sizes. Comparative studies between countries, longitudinal analyses of the implementation of the Mexican Sustainability Information Standards (NIS), and quantitative assessments of the relationship between sustainability reporting, corporate governance, and organizational competitiveness would contribute to validating and expanding the analytical model developed in this research. Likewise, future investigations could examine how digital technologies, artificial intelligence, and data analytics support the implementation of sustainability reporting and ESG governance within organizations operating in emerging economies.

Overall, this study contributes to the field of Competitiveness and Business Strategies by demonstrating that sustainability regulations should be understood not merely as legal compliance mechanisms but as strategic capabilities that strengthen organizational governance, promote innovation, improve stakeholder relationships, and generate sustainable competitive advantages. Consequently, the integrated framework proposed in this research provides both theoretical and practical guidance for organizations seeking to align sustainability management with evolving international and national regulatory requirements.

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