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Article

Environmental, Social and Governance (ESG) and Sustainable Development Goals (SDG) the Brazilian Construction Industry: Between Strategic Recognition and the Absence of Measurable Commitments to the 2030 Agenda

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RESUMO

O mundo enfrenta desafios sociais e ambientais complexos que exigem respostas urgentes. Como reação a esse cenário, a Organização das Nações Unidas (ONU) lançou, em 2015, a Agenda 2030 para o Desenvolvimento Sustentável, estruturada em torno dos Objetivos de Desenvolvimento Sustentável (ODS). Essa agenda busca erradicar a pobreza extrema e a fome, garantir educação de qualidade ao longo da vida, proteger o planeta e promover sociedades pacíficas, inclusivas e sustentáveis até 2030. Nesse contexto, as empresas são chamadas a contribuir para o alcance das metas propostas. O modelo de gestão baseado nas dimensões Ambiental, Social e de Governança (ESG), em ascensão desde 2004, procura promover um mundo mais justo por meio de resultados sustentáveis nos âmbitos social, ambiental e de governança corporativa, ancorados na transparência e na responsabilidade. O presente estudo objetivou avaliar a extensão em que a indústria da construção brasileira se alinha aos princípios da sustentabilidade, ao marco de desenvolvimento sustentável das Nações Unidas e ao modelo de gestão fundamentado em ESG. Metodologicamente, trata-se de uma pesquisa qualitativa e descritiva, de natureza bibliográfica e documental. Os resultados indicam que a sustentabilidade constitui um elemento estratégico para a competitividade das empresas do setor, contribuindo para a criação de valor e para a longevidade dos negócios. Observa-se que as firmas reconhecem o ESG como base de seus modelos de gestão, embora o tratem de forma distinta do marco orientado pelos ODS. Ademais, 50% das empresas analisadas não apresentam compromissos, metas, indicadores ou análises de materialidade relacionados aos objetivos da Agenda 2030. Como oportunidade de aprimoramento, destaca-se a necessidade de

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maior transparência na divulgação de indicadores, metas e resultados alcançados, permitindo que as partes interessadas acompanhem os impactos sociais e ambientais das atividades das construtoras.
Palavras-chave: organizações sustentáveis; ESG; ODS 12; indústria da construção civil.

ABSTRACT

The world faces complex social and environmental challenges that demand urgent solutions. In response to these challenges, the United Nations (UN) launched the 2030 Agenda for Sustainable Development in 2015, structured around the Sustainable Development Goals (SDGs). This agenda aims to eradicate extreme poverty and hunger, ensure quality lifelong education for all, protect the planet, and promote peaceful, inclusive, and sustainable societies by 2030. Within this framework, companies have been called upon to contribute to achieving the proposed goals and targets. The management model based on Environmental, Social, and Governance (ESG) dimensions, gaining relevance since 2004, seeks to foster a more just world through sustainable outcomes in social, environmental, and corporate governance aspects, grounded in transparency and responsibility. The present study aimed to assess the extent to which the Brazilian construction industry aligns with sustainability principles, the United Nations sustainable development framework, and the ESG-based management model. Methodologically, it is qualitative, descriptive research of bibliographic and documentary nature. The results indicate that sustainability is a strategic element for the competitiveness of construction companies, contributing to value creation and business longevity. It is observed that firms acknowledge ESG as the foundation of their management model, although distinct from the SDG framework. Furthermore, 50% of the companies analyzed do not present commitments, targets, indicators, or materiality analyses related to the 2030 Agenda goals. As an opportunity for improvement, the need for greater transparency in disclosing indicators, goals, and achieved outcomes is highlighted, allowing stakeholders to monitor the social and environmental impacts of construction company activities.
Keywords: sustainable organizations, ESG, SDG 12, construction industry.

Introduction and Research Rationale

The recognition that natural resources are finite, combined with evidence that business activities can simultaneously drive economic development and intensify environmental degradation, underscores the need to reassess existing models of resource use.

This tension between economic growth and ecological preservation has heightened societal expectations that private organizations adopt practices capable of reducing impacts, protecting biodiversity, mitigating carbon emissions, and reinforcing responsible patterns of production and consumption. As noted by Bettini et al. (2023), companies contribute to economic progress while exerting increasing pressure on ecosystems, which demands more rigorous approaches to corporate environmental management.

Recent evidence reinforces this trend. According to Klynveld Peat Marwick International (KPMG 2024), the world's largest corporations have expanded the publication of sustainability reports and formalized explicit climate commitments. Among the 250 largest global companies (G250), virtually all disclose sustainability-related information.

Within the group of 5,800 firms that compose the N100 ranking across 58 countries (top 100 companies by revenue in each of 58 countries), 79% already publish non-financial data. This movement is particularly relevant to the construction sector, an industry highly intensive in natural resource consumption and responsible for a considerable share of waste generation and greenhouse gas emissions. Studies by Huang et al. (2018), Wang et al. (2016), and Wasim et al. (2022) demonstrate that construction ranks among the main global sources of CO_2 emissions, and the United Nations Environment Programme (2020) warns of a continued rise in these emissions.

In this context, the 2030 Agenda and the Sustainable Development Goals (SDGs) assume a strategic role in guiding governments, corporations, and society through a transition toward sustainable production models. The *Guide to Corporate Sustainability* (UN Global Compact 2015) highlights opportunities for companies to contribute to the SDGs through investments in diversity, safe working conditions, clean technologies, energy efficiency, responsible resource management, circularity, anti-corruption practices, and transparency across

supply chains. Incorporating the SDGs therefore strengthens both corporate performance and socioenvironmental governance.

Within this framework, SDG 12—especially Target 12.6—encourages companies to adopt sustainable practices and integrate sustainability information into their reporting systems. This is particularly relevant for Brazil, a developing country with substantial demand for housing and urban infrastructure. Assessing the socioenvironmental practices of construction companies makes it possible to identify advances, gaps, and opportunities to align the sector with international guidelines.

In parallel, ESG-based management model have gained prominence in corporate strategic decision-making. According to Reichelt and Pires (2025), corporate reputation increasingly depends on how organizations conduct governance and address stakeholder expectations. Eccles and Klimenko (2019) argue that institutional investors have pressured companies to incorporate ESG factors as structural components of long-term value creation.

Given this context, the present research seeks to address the following questions: What level of strategic relevance is attributed to sustainability within the competitive dynamics of construction companies? How does the sector demonstrate adherence to sustainability, the SDGs, and ESG principles? And what opportunities exist for improving socioenvironmental management practices? Accordingly, the objective of the study is to assess the extent to which the largest construction companies in Brazil align with sustainability principles, the UN development framework, and the ESG management model.

The proposed analysis seeks to move beyond superficial assessments by examining not only the public positioning of companies but also the relationship between declared practices, corporate governance, and socioenvironmental impacts associated with productive activities. Considering the sector's high ecological footprint and the scarcity of studies that jointly address sustainability, global development goals, and governance-oriented sustainability framework, this research contributes to filling an important gap in the Brazilian literature. Furthermore, the dissemination of consistent information on corporate sustainability practices can influence behaviors in other sectors and strengthen public engagement with environmental and social governance.

Theoretical Framework and Literature Review

Corporate Sustainability

Sustainable development and sustainability are central concerns in contemporary society. The debate surrounding development models and sustainability has been ongoing globally since at least the 1960s. Several milestone documents are commonly referenced in this context: the Club of Rome's report The Limits to Growth, 1968; the Stockholm Declaration, 1972; the Brundtland Report Our Common Future, 1987; the Rio Declaration, 1992; Agenda 21, 1992; and the 2030 Agenda for Sustainable Development, 2015.

Elkington (1994, 2020) argues that the concept of sustainable development in business implies a balance between economic, environmental, and social dimensions. In a similar vein, Sachs (2011) understands sustainable development, or ecodevelopment, as the harmonization of social, environmental, and economic objectives. For Kaimovs and Skarupins (2024), sustainable development enables the promotion of social inclusion, economic well-being, and the preservation of natural resources.

According to Elkington (1994), the concern with sustainable development extends the scope and responsibility of businesses, which must consider not only economic outcomes but also environmental and social impacts. Indeed, companies around the world face the challenge of aligning economic, social, and

environmental goals, as sustainable development has become essential for both corporate survival and planetary well-being.

Elkington (1994) introduced the triple bottom line model, which integrates the economic, human, and environmental dimensions with the aim of balancing profit, people, and the planet. Corporations serve as powerful agents of change in society, shaping behaviors, practices, and business strategies. The model expanded corporate responsibility beyond financial returns, incorporating environmental protection and social well-being (Sachs, 2011; Abramovay, 2010). As noted by Miloiu et al. (2023), a sustainable company is one that, in addition to generating profits for shareholders, also protects the environment and improves the lives of the people with whom it interacts. This shift positioned corporations as agents of transformation capable of influencing social and ecological outcomes (Miloiu et al., 2023).

In this context, many companies have adopted sustainable, socially responsible, and transparent management practices, driven by a genuine commitment to social and environmental causes (Abramovay 2010). As Baraibar-Diez and Sotorrio (2018, 15) affirm, such companies "act responsibly because they believe they should be responsible, not because others demand it." Moreover, social and environmentally responsible actions can contribute positively to business performance (Hasanuddin et al. 2023; Carroll & Hoy 1984).

KPMG (2024) reported that nearly all companies in the G250 group now routinely publish sustainability and ESG reports. Currently, 96% of these corporations release such documents, compared to just 35% in 1999, when the firm first measured this indicator, illustrating a growing global consensus regarding the strategic relevance of sustainability disclosure.

However, the expansion of sustainability disclosure does not necessarily reflect substantive organizational change. As Diouf and Boiral (2017) demonstrate, sustainability reports frequently serve as instruments of impression management, selectively emphasizing positive aspects of corporate performance while obscuring structural tensions. Roszkowska-Menkes and Aluchna (2018) further argue that institutional isomorphism drives companies to adopt similar reporting patterns and management models, creating a veneer of convergence that masks divergent levels of genuine commitment.

In this context, Munro (2020) cautions that rhetorical adherence to global sustainability frameworks may coexist with SDG-washing strategies, wherein the listing of social and environmental initiatives substitutes for their purposeful integration into core business operations. These critical perspectives underscore the need to examine not only the volume of corporate disclosures but also the quality, consistency, and transformative intent underlying sustainability narratives.

Corporate Sustainability, the SDGs, and ESG

Thammaraksa et al. (2025) highlighted the limitations of the economic, social, and environmental dimensions alone in fully capturing the concept of sustainable development. Such-Pyrgiel, Gołębiowska and Prokopowicz (2023) defines sustainable development as a mode of social, economic, political, cultural, and environmental advancement that meets present needs without compromising the ability of future generations to meet their own.

In 2015, the United Nations proposed a global action plan to eradicate poverty, protect the planet, and ensure that all people achieve peace and prosperity, an initiative that became known as the 2030 Agenda for Sustainable Development.

The purpose of the 2030 Agenda and its Sustainable Development Goals (SDGs) is to place the world on a sustainable trajectory by eradicating poverty, promoting equality, and protecting future generations from the adverse effects of climate change. Achieving these objectives requires, on the one hand, "bold and

transformative" measures and, on the other, the commitment of individuals, businesses, and governments to meeting the goals established for 2030.

The UN Global Compact (2015) and subsequent frameworks, such as the SDG Compass, the Global Reporting Initiative (GRI), and the International Sustainability Standards Board (ISSB), provide instruments for aligning corporate reporting with the SDGs. More recently, the European Union's Corporate Sustainability Reporting Directive (CSRD) has sought to standardize the disclosure of sustainability information on a global scale, promoting comparable and verifiable data (Lestari & Gangodawilage 2025; Yosepha 2025).

Consequently, it has become inconceivable to dissociate sustainability from the organizational context and business operations. Companies around the world are being called upon to contribute to the transition from an unsustainable world to a sustainable one by assuming shared responsibility for sustainable development.

ESG refers to the use of environmental, social, and governance factors to assess business risk, including human rights violations, environmental degradation, climate change, corruption, and other concerns. The ESG model has gained relevance as companies and markets have come to recognize that incorporating environmental, social, and governance aspects can promote more effective risk management and lead to superior medium- and long-term financial performance.

According to Syed (2017), the inclusion of ESG factors in investors' decision-making processes improves corporate conduct by encouraging companies to consider the concerns of their stakeholders. Eccles and Klimenko (2019) emphasize that investors now consider ESG performance a determinant of long-term value, pushing companies toward more transparent governance and stakeholder accountability.

Schramade (2017) argues that organizations may be positioned at different stages of progress in integrating the Sustainable Development Goals (SDGs) into their business models and strategic frameworks. The author delineates four sequential phases that represent corporate advancement in SDG integration: exploration of the SDGs; identification of exposure, risks, and opportunities; goal setting and strategic integration; and, finally, measurement and reporting of SDG-related performance. This progression enables an assessment of how deeply sustainability is embedded within corporate governance structures and decision-making processes.

However, the proliferation of normative frameworks (from the 2030 Agenda to ESG standards) does not guarantee the effectiveness of corporate practices. As Banerjee (2008) and Fleming and Jones (2013) caution, corporate sustainability discourse frequently operates as a mechanism of symbolic legitimation, neutralizing distributive conflicts and masking power asymmetries between corporations and affected communities.

In this sense, rhetorical adherence to the SDGs and ESG criteria may coexist with the perpetuation of extractive and exclusionary models, demanding a critical reading capable of distinguishing structural commitments from greenwashing or SDG-washing strategies (Munro, 2020). The author explains that SDG-washing refers to the adoption of the SDGs through the listing of social and environmental initiatives without their active implementation with purpose and intention, effectively keeping the SDGs outside the core business model.

The empirical analysis that follows seeks precisely to examine this tension between discourse and practice in the Brazilian construction industry.

Materials and Methods

This study adopts a qualitative approach, because qualitative research was chosen to interpret complex social and organizational dynamics that cannot be captured through quantitative indicators alone. Yin (2016) associates qualitative research with subjectivity, noting that it can be applied to the study of beliefs, values, motivations, social relationships, attitudes, strategies, and management models.

Regarding its design, the study is descriptive. Severino (2007, 123), explains that descriptive research not only "records and analyzes the phenomena studied but also seeks to identify their causes." In this sense, the research aimed to examine the adherence of the largest Brazilian construction companies to sustainability practices, as well as the characteristics of their alignment with the 2030 Agenda goals and ESG-based management model.

The study is also bibliographical and documentary. Gil (2019) points out that bibliographical and documentary research are similar, differing mainly in the nature of their sources. While bibliographical research relies on the contributions of various authors published on a given subject, documentary research uses materials that have not yet undergone analytical treatment, such as websites, integrated reports, and Global Reporting Initiative (GRI) documents.

Among the means used to collect information on corporate actions and commitments toward the global sustainable development goals, the internet played a key role. Numerous studies have used websites and publicly available data as sources, such as Penna et al. (2022), Silva Filho et al. (2021), and Sousa Filho et al. (2010). Similarly, Caciato (2025) proposed a structured methodology to evaluate ESG adherence among sanitation companies, using publicly accessible data sources such as sustainability reports and corporate websites.

The research selected the ten largest companies in the Brazilian civil construction sector to compose the sample. Large national and multinational corporations are, according to Liu (2025), primary agents of economic globalization whose actions exert significant influence on society and the environment. Thus, the study analyzed the ten largest Brazilian construction companies by construction volume, based on 2024 data. These firms represent both publicly traded and privately held entities, offering a broad perspective on sustainability practices across governance structures.

With four of these companies listed on the Brazilian stock exchange (B3), the sample reflects the sector's structural diversity. According to the INTEC (2025) ranking (Table 1), the ten largest construction companies in Brazil are Direcional Engenharia, Pacaembu Construtora, MPD Engenharia, Grupo Plaenge, Cury Construtora, Construtora Tenda, BPNPAR Incorporações, Construtora JL, FG Empreendimentos, and Moura Dubeux.

Table 1. Largest construction companies in Brazil by construction volume, 2025.

Rank	Construction Company	Built Area (m²)	Region	Stock Market Status
1	Direcional Engenharia	4,459,227.47	Southeast	Public
2	Pacaembu Construtora	3,864,918.68	Southeast	Private
3	MPD Engenharia	2,828,719.04	Southeast	Private
4	Grupo Plaenge	2,818,910.80	South	Private
5	Cury Construtora	2,549,236.95	Southeast	Public
6	Construtora Tenda	2,014,287.37	Southeast	Public

7	BRNPAR Incorporações	1,505,374.08	Southeast	Private
8	Construtora JL	1,504,519.98	South	Private
9	FG Empreendimentos	1,432,115.69	South	Private
10	Moura Dubeux	1,356,598.37	Northeast	Public

Source: INTEC (2025).

Data collection relied on documentary analysis of corporate sustainability and ESG reports, complemented by information from official company websites. The analysis followed five sequential steps:

- Identification of references to "sustainability," "ESG," and "SDG" in corporate reports.
- Interpretation of how each company conceptualizes sustainability.
- Examination of the relationship between sustainability practices and strategic management.
- Assessment of how sustainability and ESG actions align with SDGs; and
- Identification of gaps and opportunities for improvement regarding reporting transparency, governance, and stakeholder engagement.

This process aimed at producing a comprehensive diagnosis of the sector's sustainability maturity, emphasizing adherence to Target 12.6 of the 2030 Agenda.

While exclusive reliance on secondary sources entails a methodological limitation regarding access to internal corporate dynamics and stakeholder perspectives, it simultaneously affords significant analytical advantages.

Documentary research based on publicly available corporate disclosures enables systematic, replicable, and transparent analysis of organizational discourse, governance structures, and stated commitments, dimensions that constitute central objects of inquiry in critical sustainability studies (Boiral 2013; Cho et al. 2018).

Furthermore, triangulating corporate narratives across multiple sources and interpreting them through established theoretical frameworks constitutes a rigorous academic procedure capable of exposing tensions between espoused and enacted values, alongside patterns of symbolic legitimation and institutional isomorphism within the sector (Diouf & Boiral 2017; Roszkowska-Menkes & Aluchna 2018).

Thus, the methodological choice is not a concession to convenience but a deliberate strategy to examine how the discursive and institutional dimensions of corporate sustainability are publicly constructed and disseminated.

Results and Discussion

Sustainability as a Strategic Commitment

Between February and March 2025, sustainability reports for the year 2023 were analyzed for the following companies: Direcional Engenharia; MPD Engenharia; Cury Construtora; FG Empreendimentos; and Moura Dubeux.

The 2022 reports of Pacaembu Construtora and BPNPAR Incorporações were also examined. For Grupo Plaenge, only an ESG page was found on its institutional website, with no sustainability report available. Among

the ten largest Brazilian construction companies, sustainability reports for Grupo Tenda and Construtora JL were not located. It is noteworthy that Construtora Tenda, listed in the Novo Mercado segment of B3, which requires the highest standards of corporate governance, had not yet published a sustainability report as of the first half of 2025, the period during which this research was conducted.

It is noteworthy that, in 2024, among the 100 largest (N100) Brazilian companies, 93% published ESG and sustainability reports (KPMG 2024). Thus, the construction sector appears less inclined to disclose ESG and sustainability information when compared with the national average and the global average, where 79% of N100 companies release sustainability data (KPMG 2024). The sector's performance aligns more closely with that of Latin American countries, where 69% of companies disclose sustainability information (KPMG 2024). Therefore, it can be concluded that transparency and practical actions for sustainability among Brazilian construction companies still present significant potential for development.

The absence of sustainability reports highlights the need to broaden the debate on sustainability, environmental impacts, and carbon emission mitigation in the construction industry, as proposed by Wasim et al. (2022) and Wang et al. (2016). This is particularly relevant given that society, and even major corporations, often overlook the construction sector's potential to mitigate climate change and contribute significantly to achieving the goals established under the Paris Agreement.

Among the companies analyzed, the term sustainability appeared frequently throughout the reports, except for Pacaembu Construtora, where it was mentioned only a few times. Table 2 presents a synthesis of how the concept of sustainability is expressed by construction companies.

Table 2. The Notion of Sustainability Among Brazil's Leading Construction Companies.

Construction Company	Concept of Sustainability
Direcional Engenharia	Strategic commitment to advancing ESG management, generating long-term value, ensuring transparency, and aligning with global standards.
Pacaembu Construtora	Sustainability as a core value: delivering projects that promote sustainability and environmental preservation.
MPD Engenharia	Strategic pillar linked to engineering innovation, environmental conservation, and social well-being, associated with business continuity and value creation for clients, shareholders, and society.
Grupo Plaenge	Sustainability is presented as a strategic commitment grounded in environmental, social, and governance dimensions.
Cury Construtora	Sustainability as a business guideline, associated with quality of life, environmental preservation, and positive community impact.
BRNPAR Incorporações	Sustainability is understood as an ethical and corporate responsibility, seeking balance among economic, social, and environmental performance.
FG Empreendimentos	Sustainability is integrated into corporate strategy, involving environmental stewardship, respect for people, and the promotion of responsible development.
Moura Dubeux	Sustainability as a strategic commitment encompassing economic growth, social responsibility, and environmental respect.

Source: Authors' elaboration (2025).

Therefore, the reports indicate that sustainability is a strategic factor for the competitiveness of construction companies, value creation, and business longevity. Furthermore, the reports predominantly associate sustainability with the social, environmental, and governance pillars of the ESG framework, without necessarily connecting these practices to the SDGs. This finding suggests that companies are moving toward responsible management but have yet to internalize the SDG framework as a guiding reference for strategic planning.

Regarding sustainability in the construction sector, the companies report initiatives aimed at the efficient use of water, energy, wood, steel, and other materials employed in construction projects. They also describe actions to mitigate the environmental impacts of construction activities, such as reducing noise, dust, and damage to neighboring structures, in addition to initiatives such as tree planting and urban infrastructure revitalization.

However, no significant differences were identified between the companies listed on the Brazilian stock exchange (B3) and those not listed. Table 3 summarizes these sustainability-oriented actions in the construction sector.

Limited Integration of SDGs

Sustainability does not appear to be explicitly linked to the 2030 Agenda. It was observed that, among the ten largest Brazilian construction companies, five do not align their actions with the SDGs. Their sustainability reports do not present commitments, targets, indicators, or materiality topics associated with the SDGs, a finding that contrasts with KPMG's (2024) results. Consequently, stakeholders lack information about the actions undertaken by these companies to minimize the social and environmental impacts of their activities.

The results obtained are concerning, as Target 12.6 (SDG 12) appears to be far from being achieved by 2030. Even the largest construction companies in Brazil have not yet integrated the concept of sustainability with the SDGs in their reports, despite the construction sector being one of the industries with the highest environmental impact, an impact that tends to intensify in a country with a growing economy. However, most lacked quantifiable targets, indicators, or follow-up mechanisms, hindering assessment of their real contribution to the SDGs.

There are several ways to advance Target 12.6 (SDG 12), such as establishing partnerships with governments, civil society, universities, and research institutes, thereby strengthening corporate reputation. These companies overlook that commitment to the SDGs involves all nations and corporations worldwide, constituting an international benchmark that legitimizes sustainability-oriented practices.

Commitment to the SDGs serves as an international reference that legitimizes sustainability-focused actions. Society benefits when construction companies disclose their initiatives aimed at mitigating the social and environmental impacts of their activities. Moreover, the commitment to sustainability would be reinforced if, for each material topic linked to one or more SDGs, a corresponding indicator and clearly defined target were provided.

The companies that demonstrate articulation between their material topics and the SDGs are:

- **Direcional Engenharia**, which connects corporate management to priority SDGs.
- **Cury Construtora**, which links its strategic actions to specific SDGs.
- **BRNPAR Incorporações**, which aligns its material topics with relevant SDGs.

- **FG Empreendimentos**, which declares that its social, environmental, and governance actions are consistent with 11 of the 2030 Agenda.
- **Moura Dubeux**, which associates its commitments with 12 of the 2030 Agenda.

Thus, only five companies align their practices with the goals and targets established in the 2030 Agenda, as shown in Table 4.

In assessing adherence to the SDGs and considering the stages of engagement proposed by Schramade (2017), the analysis reveals that Brazilian construction companies articulating sustainability commitments with the 2030 Agenda goals in their corporate reports are transitioning to phase two. At this stage, companies seek to identify opportunities while mitigating risks, understand how SDG adherence affects their strategic positioning, and evaluate how such engagement contributes to building a more sustainable world.

Table 3. Actions to Strengthen Sustainability in the Construction Sector.

Construction Company	Sustainable Actions in the Construction Sector
Direcional Engenharia	Mitigation of construction impacts (noise, dust, damage to nearby structures); environmental and urban compensation measures, such as tree planting and water/sewage networks; urban revitalization and rehabilitation of contaminated areas.
Pacaembu Construtora	Conducts preliminary studies to minimize land cutting/filling and preserve drainage systems; promotes urban integration and accessibility; provides public infrastructure; and implements compensatory measures (sustainable materials, reduced water/energy consumption, site recovery, wastewater treatment, and waste management).
MPD Engenharia	Efficient use of water and energy, waste management, and air quality control; waste management areas implemented in 100% of worksites; selective waste collection and the Recigreen project (cement bag recycling); monitoring of works through consumption and waste generation indicators.
Grupo Plaenge	Use of technologies that minimize environmental impacts and reduce water and energy consumption throughout the building lifecycle; rainwater harvesting, motion sensors, high-efficiency toilets, timed faucets, eco-efficient elevators; tree planting around developments and mitigation of neighborhood impacts.
Cury Construtora	Reports that 99.9% of the wood used in projects is from reforestation; preference for low-GHG emission materials; recycling and reverse logistics with steel suppliers; rehabilitation of degraded urban areas; application of the Lean Construction methodology to reduce waste.
BRNPAR Incorporações	Emphasizes environmental management (water, energy, waste, and emissions) and workplace safety in its sustainability report.
FG Empreendimentos	Waste management program; management of liquid effluents and construction noise; adoption of industrialized and dry construction systems (drywall, ventilated facades, raised floors); implementation of technologies for energy efficiency (green roofs, motion sensors, modern elevators); environmental certifications.
Moura Dubeux	Environmental certifications. Use of modern construction technologies (concrete walls, BIM, retrofit); waste management, energy efficiency, rational water consumption, and emissions inventory.

Source: Authors' elaboration (2025).

Table 4. Evidence of Commitment to the 2030 Agenda.

Construction Company	Commitment to the SDGs
Direcional Engenharia	Seeks to connect corporate goals with priority SDGs, such as SDG 6 (Clean Water and Sanitation), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action).
Cury Construtora	Associates each material topic (governance and compliance; economic performance; social and environmental commitment; project quality; workers' health and safety; diversity and inclusion; employee training; sustainable practices at construction sites) with specific SDGs (e.g., health → SDG 3; diversity → SDGs 5 and 10; environment → SDGs 11, 12, and 13).
BRNPAR Incorporações	Links material topics (water, energy, greenhouse gas emissions, decent work, health and safety, economic performance, governance structure, innovation) directly to relevant SDGs (e.g., water → SDG 6; decent work → SDG 8; health → SDG 3).
FG Empreendimentos	Declares that its social, environmental, and governance actions are consistent with 11 of the 17 SDGs of the 2030 Agenda, emphasizing health, decent work, innovation, responsible consumption and production, sustainable cities, and climate. Associate topics such as water, energy, waste, health, decent work, and governance with the SDGs.
Moura Dubeux	The report includes a section titled Commitment to the SDGs and Sustainable Development Strategy. Moura Dubeux associates its commitments with 12 of the 17 UN SDGs, linking material topics such as innovation, climate strategy, waste, health, ethics, and governance directly to the SDGs. Apply the concept of double materiality: business impact + stakeholder impact.

Source: Authors' elaboration (2025).

ESG as the Dominant Framework

ESG is a recurring term in the documents analyzed. The construction companies express their adherence to the ESG management model, which forms the basis of the management approach in seven of the ten largest construction companies in Brazil. The exceptions are Grupo Tenda, Construtora JL and Pacaembu Construtora. The absence of ESG information in these three companies is noteworthy, particularly at a time when investors are increasingly pressing corporations to adopt global, comparable, and auditable standards for ESG measurement and disclosure, as show Eccles and Klimenko (2019) and Yosepha (2025).

The companies link ESG to their strategic management actions. ESG appears as both a governance and management tool, enabling the implementation of the sustainability agenda and ensuring long-term business success (Lestari & Gangodawilage 2025). Eccles and Klimenko (2019) argue that CEOs and boards of directors are being called upon to align strategy, risk, and long-term performance with investor expectations, which requires abandoning the short-term view of value creation focused solely on shareholders and advancing toward

a notion of sustainable long-term value. Table 5 presents evidence of adherence to the ESG management model among the companies analyzed.

Table 5. Evidence of Adherence to the ESG Management Model

Construction Company	Adherence to ESG
Direcional Engenharia	ESG is the foundation of the management model. It is linked to the company's mission of providing affordable housing with social, environmental, and governance responsibility.
MPD Engenharia	Presents an ESG Agenda focused on becoming an innovative, sustainable (financially, environmentally, and socially), and transparent company through governance and compliance practices.
Grupo Plaenge	ESG is part of the management model and includes actions for carbon reduction, water conservation, wood preservation, and waste elimination. The company also supports health, education, and cancer-fighting institutions in various cities and adopts a Code of Ethics, independent audits, an ethics channel, and a long-term shareholder agreement.
Cury Construtora	Governance structure and actions based on the following pillars: environmental (sustainable materials, reverse logistics); social (educational, sports, and community projects); and governance (compliance, risk management, and information security).
BRNPAR Incorporações	ESG is embedded in the company's culture and applied in strategic decision-making processes. The company adopts practices such as GHG inventory (Scopes 1, 2, and 3), annual ESG data disclosure, and structured governance.
FG Empreendimentos	ESG is the foundation of the management model. The ESG Committee defines goals and priority topics. ESG management involves a code of conduct, ombudsman, external audit, compliance, community projects, emotional health programs, volunteering, certifications, and carbon offsetting.
Moura Dubeux	ESG is the foundation of the management model. ESG management includes initiatives related to energy efficiency, water, waste, emissions inventory, workforce training, diversity and inclusion, health and safety, as well as fiscal council, integrity, and compliance.

Source: Authors' elaboration (2025).

Therefore, the construction companies state that ESG serves as the foundation of their management model, unlike the SDGs. However, practices that materialize sustainability, organized into the environmental, social, and governance pillars, when aligned with the SDGs, including defined goals and timelines, represent strategic

commitments that enhance corporate value and contribute to the long-term sustainability of the firm, as demonstrated Tyan, Liu and Fu (2024).

Transparency and Measurement Gaps

Regarding investments and the groups benefiting from strategic sustainability actions, it was found that only Direcional Engenharia provides a detailed account of its monetary investments. MPD Engenharia and Grupo Plaenge, in turn, present the results of their investments in terms of carbon emission capture/neutralization and water conservation. The other construction companies do not specify the amounts allocated to sustainability in the documents analyzed.

Most companies provide qualitative descriptions of their sustainability initiatives but rarely disclose detailed investments, outcome metrics, or performance indicators. Only a few present quantifiable data, such as carbon emission inventories, water use, or energy efficiency results. This lack of standardization and transparency contrasts with emerging international practices under CSRD and ISSB guidelines (Damiano & Di Maria 2024; Ahmad, Yaqub & Lee 2023).

Comparative Insights

An examination of strategic actions reveals that, in the environmental dimension, construction companies concentrate investments in infrastructure (water, energy, sanitation, paving, area rehabilitation, waste management). In the social dimension, investments focus primarily on health, education/literacy, worker safety, and support for social organizations. Table 6 summarizes the main strategic actions, target groups, and sustainability investments reported by the companies.

Table 6. Strategic Actions, Beneficiaries, and Sustainability Investments.

Construction Company	Strategic Actions	Beneficiaries	Investiments
Direcional Engenharia	Environmental	Residents, surrounding communities, public authorities, suppliers, and shareholders	Yes
Pacaembu Construtora	Social	Local community, residents, and employees	No
MPD Engenharia	Environmental, Social	Local communities, clients, society, and employees	No
Grupo Plaenge	Environmental, Social	Local communities, employees, clients, social and environmental organizations	No
Cury Construtora	Environmental, Social	Residents, neighboring communities, workers, social organizations, and society	No
BRNPAR Incorporações	Environmental, Social	Employees, local communities, clients, and society	No
FG Empreendimentos	Environmental, Social	Employees, local communities, and society	No
Moura Dubeux	Enviromental, Social	Employees, local communities, clients, and society	No

Source: Authors' elaboration (2025).

Compared to global trends, Brazilian construction firms exhibit a moderate level of sustainability maturity. While global corporations are progressing toward integrated reporting and double materiality assessments, Brazil's construction sector remains largely compliance-oriented, focusing on reputational benefits and investor expectations. The findings highlight a key policy gap: sustainability initiatives are being implemented in isolation rather than as part of a coordinated national or sectoral strategy aligned with the 2030 Agenda.

Practice Implications

The results indicate that Brazil's largest construction companies have adopted sustainability as a strategic commitment, the effectiveness of which depends on the alignment of objectives, targets, and indicators. Sustainability enables these companies to advance within the governance-oriented sustainability framework, aiming to ensure long-term value for clients, shareholders, and society, as well as transparency in corporate governance.

The reports reveal that the primary connection is between sustainability and ESG, while references to the global sustainable development goals remain comparatively limited. Although companies correctly perceive ESG as a management tool, they overlook the fact that the SDGs represent an important international benchmark for validating social and environmental commitments.

It is evident that construction companies need to incorporate the SDGs into their planning and align them with their competitive strategies, thereby strengthening corporate socio-environmental responsibility and tangibly demonstrating their contribution to national sustainability objectives. Furthermore, these companies

must make their adherence to these goals explicit, accompanied by detailed quantitative targets linked to the environmental and social impacts of their strategic actions, to align corporate management with international standards. Such alignment is crucial for assessing each company's contribution to the global objectives of the 2030 Agenda.

Furthermore, institutions and companies in Brazil's construction sector need to devote greater attention to Target 12.6, which encourages organizations to adopt sustainable practices and integrate sustainability information into their corporate reports. To this end, it is essential to adopt globally recognized reporting standards (CSRD, ISSB, GRI), which enhance data comparability and strengthen investor confidence.

Eccles and Klimenko (2019) and Yosepha (2025) emphasize that investors are increasingly pressuring companies to adopt consistent frameworks that allow performance to be assessed in a reliable and comparable manner. Regulators should encourage mandatory sustainability reporting for sectors with high environmental impact, such as construction, in line with international practices. In this context, companies should expand the disclosure of qualitative and quantitative indicators related to their socio-environmental performance.

According to KPMG (2024), from 2025 onward, European companies will disclose broader and more detailed information regarding their governance-grounded sustainability frameworks, as the European Union's Corporate Sustainability Reporting Directive (CSRD) comes into force and various countries begin adopting the standards of the International Sustainability Standards Board (ISSB). Although implementation will proceed gradually, numerous companies not yet legally subject to mandatory compliance have already begun voluntarily aligning with the CSRD guidelines.

This movement, characterized by the standardization and expansion of ESG data, should be carefully considered by Brazilian companies, as it will enable more consistent and comparable assessments of organizational sustainability performance on a global scale.

Consequently, establishing clear links between investments, targets, and outcomes is fundamental for evaluating the effectiveness of corporate sustainability policies (Ahmad, Yaqub & Lee 2023). Companies must enhance financial transparency by providing detailed information on the investments made, the results achieved, and their contributions to the global goals of the 2030 Agenda (Damiano & Di Maria 2024).

However, the absence of robust indicators, especially financial ones, and the lack of clearly defined targets represent opportunities for improvement, particularly for achieving closer alignment with international best practices. Strengthening stakeholder engagement, by involving local communities, workers, and supply chain partners in sustainability planning, would also enhance the legitimacy, effectiveness, and social impact of corporate initiatives.

The sustainability reports of the companies studied reveal knowledge and management practices focused primarily on ESG, demonstrating that the largest Brazilian construction companies responded to institutional pressure, as proposed by Diouf and Boiral (2017) and Roszkowska-Menkes and Aluchna (2018), and follow similar business models and management practices.

Nonetheless, the results suggest that concern for sustainability, ESG, and the SDGs primarily reflects impression management strategies used by companies to highlight the positive aspects of their sustainability performance. While these companies demonstrate knowledge and ESG-focused management practices, the persistence of symbolic legitimation challenges, as highlighted by Banerjee (2008) and Fleming and Jones (2013), reveals that mere adherence to ESG criteria in relation to the SDGs is insufficient to prevent extractive practices, greenwashing strategies, or SDG-washing (Munro, 2020).

Conclusions

This study examined the degree of alignment of Brazil's largest construction companies with sustainability practices, the 2030 Agenda goals and ESG-based management model. The analysis broadened the understanding of how these international frameworks have been incorporated into the sector, which remains understudied in the national literature despite its socioenvironmental and economic relevance. The use of publicly available information, primarily sustainability reports and institutional webpages, proved to be a methodologically consistent procedure for assessing disclosure patterns, strategic positioning, and corporate commitments.

The findings reveal that although sustainability is widely recognized as a strategic element, the construction sector continues to rely predominantly on an ESG-oriented discourse, with limited and uneven incorporation of the SDGs. The largest companies have gradually expanded socioenvironmental initiatives, yet integration of the 2030 Agenda remains confined to part of the sample. The analysis indicates that the connection between sustainability and business competitiveness is broadly acknowledged in the reports reviewed, reinforcing the centrality of the topic within the sector's strategic dynamics.

The quality of disclosure, however, presents notable gaps. Many companies do not provide detailed information regarding impacts, commitments, indicators, or targets, which hinders the assessment of the effectiveness of their actions and restricts the transparency required for public monitoring. More robust reporting, combining quantitative and qualitative information on socioenvironmental outcomes, would be essential to strengthen corporate credibility and enhance accountability. The absence of consistent indicators, particularly those related to financial performance and environmental results, remains an opportunity for improvement and reflects asymmetrical relations in relation to international best practices.

It is noteworthy that 50% of the companies analyzed exhibit low engagement with the 2030 Agenda, limiting stakeholders' access to essential metrics on social and environmental impacts. This scenario prevents a comprehensive assessment of the sector's contribution to the achievement of Target 12.6, which encourages sustainable practices and the integration of sustainability information into corporate reporting. Given its significant environmental impact, the construction sector should adopt a more proactive stance in formulating and disclosing strategies aligned with global sustainability objectives.

From a methodological standpoint, the approach adopted demonstrated transparency, replicability, and potential for application in other contexts. Nevertheless, the exclusive reliance on secondary sources and the absence of stakeholder validation constitute limitations that future research may address. Subsequent studies may incorporate external audits, interviews, field observation, and data triangulation, thereby increase analytical robustness and mitigate biases inherent to corporate narratives.

The research contributes to the academic debate by offering an original diagnosis of the maturity level of sustainability practices in the Brazilian construction sector, highlighting advances, weaknesses, and tensions between discourse and practice.

Theoretically, these findings advance existing conceptual models by empirically demonstrating that ESG adoption and SDG integration do not constitute a linear or convergent process; rather, they operate as distinct institutional logics that may coexist in a state of strategic decoupling. By revealing how impression management and symbolic legitimation persist even among ESG-adherent firms in a high-impact sector, the study extends theories of institutional isomorphism, corporate sustainability disclosure, and SDG-washing, hitherto predominantly developed in Global North contexts, to emerging market settings.

Future studies may deepen international comparisons, expand the range of companies analyzed, investigate relationships between climate governance and business performance, and assess adherence to emerging

regulatory standards. Collectively, these efforts may strengthen understanding of the strategic role of the construction industry in the transition toward more resilient, inclusive, and 2030 Agenda–aligned urban development models.

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