

# Longitudinal Trend Analysis of ESG Practices in the Hospitality Industry: A Comparative Study of Three International Hotel Chains

## Abstract

This study presents a longitudinal trend analysis of Environmental, Social, and Governance (ESG) practices in the hospitality industry, focusing on three global hotel chains: Hilton, Marriott International, and Wyndham Hotels & Resorts. Drawing on ESG reports from 2021 to 2023, the research evaluates each company's performance in reducing environmental impact, promoting social equity, and enhancing governance transparency. Key performance indicators include emissions intensity, water and waste management, diversity and inclusion targets, and community investment efforts. The analysis reveals that all three hotel chains have made measurable progress, with Hilton leading in emissions reduction, Marriott in water efficiency and social outreach, and Wyndham showing steady improvement in waste and localized ESG practices. Despite shared advancements, variations in reporting standards and baseline years present challenges for comparability. The findings highlight the need for harmonized ESG metrics and reinforce the strategic value of sustainability in building resilient and competitive hospitality businesses.

**Keywords:** Environmental, Social, and Governance (ESG); Hospitality Industry; Sustainability; Longitudinal Analysis; Hotel Chains; ESG Reporting.

## Introduction

In recent years, the integration of Environmental, Social, and Governance (ESG) criteria into business operations has transitioned from a voluntary ethical stance to a critical strategic imperative, particularly within the hospitality industry. As the global community becomes increasingly aware of the pressing challenges posed by climate change, social inequality, and governance failures, stakeholders — including investors, consumers, employees, and regulators — are demanding higher levels of transparency, accountability, and sustainability from businesses (Lee & Kim, 2021). In the hotel sector, ESG is not only a measure of corporate citizenship but also a key driver of competitiveness, resilience, and long-term value creation.

The importance of ESG in hotels stems largely from the nature of the industry itself. Hospitality operations are inherently resource-intensive, involving high levels of energy consumption, water usage, waste generation, and human capital management (Gonzalez-Rodriguez & van der Rest, 2019). As a result, hotels face growing pressure to minimize their environmental footprint, foster inclusive and diverse workplaces, engage meaningfully with local communities, and implement robust governance mechanisms. By embedding ESG principles into their strategic frameworks, hotels can not only mitigate risks and comply with emerging regulatory standards but also unlock new avenues for innovation, differentiation, and customer loyalty (Jones et al., 2020).

Moreover, ESG practices contribute to the internal and external success of hotels in tangible ways. Environmentally sustainable initiatives, such as energy-efficient building designs, renewable energy adoption, and waste reduction programs, lead to cost savings and operational efficiencies (Okumus & Bilgihan, 2018). Social initiatives, including employee well-being programs, diversity and inclusion efforts, and community engagement activities, enhance organizational culture, reduce turnover, and build strong stakeholder relationships. Governance practices, such as transparent reporting, ethical leadership, and risk management, improve

decision-making and attract socially conscious investors. Taken together, these contributions create a virtuous cycle of improved reputation, financial performance, and societal impact.

Large hotel chains, due to their global presence and access to resources, have been at the forefront of ESG innovation. Brands such as Marriott International, Hilton, and Accor have developed comprehensive ESG strategies that encompass carbon neutrality goals, human rights protections, and corporate transparency commitments (Sanchez-Torres et al., 2020). Studying the ESG practices of these leading firms provides valuable lessons for the broader industry. Firstly, successful ESG integration requires a holistic approach, embedding sustainability into all aspects of operations rather than treating it as a standalone initiative (Kasim, 2021). Secondly, clear goal-setting, stakeholder engagement, and consistent measurement and reporting are critical to driving continuous improvement and demonstrating accountability. Thirdly, collaboration with external partners — including suppliers, NGOs, and governments — can amplify the impact of ESG efforts and enhance industry-wide progress.

Additionally, the experiences of large hotel chains highlight both the opportunities and challenges inherent in ESG implementation. For example, while ambitious environmental targets can enhance brand prestige and customer appeal, achieving these goals often necessitates significant upfront investments and long-term cultural change. Similarly, initiatives aimed at promoting diversity and inclusion must be authentic and supported by measurable actions to avoid perceptions of tokenism. Learning from the successes and setbacks of industry leaders allows hotels of all sizes to tailor ESG strategies to their specific contexts, balancing ambition with pragmatism.

In light of these considerations, this paper examines the role and significance of ESG practices in the hotel industry. It analyzes how ESG contributes to hotel performance across operational, financial, and reputational dimensions and explores best practices derived from leading hotel chains. By doing so, it aims to offer practical insights for industry stakeholders seeking to navigate the evolving landscape of sustainable hospitality and to build more resilient, responsible, and profitable businesses.

## **Methodology**

This study employs a longitudinal, descriptive, and comparative research design to evaluate the ESG (Environmental, Social, and Governance) performance of three major international hotel chains (Hilton, Marriott International, and Wyndham Hotels & Resorts) over a three-year period, from 2021 to 2023. The objective is to identify patterns of improvement, stagnation, or regression in ESG performance and to assess the degree of strategic alignment with sustainability standards and global benchmarks.

A quantitative trend analysis was utilized to systematically examine ESG indicators published annually in each hotel brand's official ESG or sustainability reports. A comparative analysis framework was applied to evaluate similarities and differences in ESG progress and reporting strategies among the three companies.

The study is based exclusively on secondary data sourced from verified and publicly accessible ESG reports issued by Hilton, Marriott, and Wyndham for the years 2021, 2022, and 2023. Reports were retrieved directly from each company's investor relations or corporate responsibility websites to ensure data authenticity and consistency.

While this methodology ensures consistency and comparability, some limitations must be acknowledged:

- Variations in reporting baselines and disclosure depth make direct numerical comparisons challenging.
- The analysis is restricted to publicly reported corporate-level data and does not include property-level audits or qualitative stakeholder interviews.

Despite these constraints, the methodology provides a structured and replicable framework for benchmarking ESG progress across the hospitality industry and offers insight into emerging best practices and areas for improvement.

## **Findings**

This study provides a longitudinal and comparative evaluation of ESG performance across Hilton, Marriott International, and Wyndham Hotels & Resorts from 2021 through 2023. The analysis identifies trends and benchmarks that reflect the hospitality industry's collective progress toward sustainable development. Despite differences in scope and scale, all three companies have demonstrated increasingly structured approaches to environmental, social, and governance (ESG) priorities.

*Environmental Performance:* All three hotel groups reported consistent progress on reducing their greenhouse gas emissions, enhancing energy efficiency, and promoting waste reduction. Hilton led in emissions intensity reduction with a 45.1% decrease in Scope 1 and 2 emissions (2008 baseline), followed by Marriott (34.3%, 2016 baseline) and Wyndham (30%, 2019 baseline by 2023). All three brands aligned their climate strategies with the Science Based Targets initiative (SBTi) and publicly committed to net-zero pathways—Hilton and Marriott through 2030/2050 targets and Wyndham through phased goals to reduce absolute emissions. In water stewardship, Marriott achieved the most notable reduction, reporting a 31.1% water intensity decrease, followed by Wyndham at 24.7% and Hilton at 26.5%. Wyndham's focus on drought-prone regions and water-stressed property audits highlights a more location-sensitive approach, while Hilton and Marriott expanded smart irrigation, greywater, and risk-based mapping across their global portfolios. In terms of waste diversion, Hilton recorded the highest improvement with a 54.4% reduction in landfilled waste intensity, compared to 46.4% diversion for Marriott and 35.9% reduction in total waste intensity for Wyndham. All three companies have adopted circular economy strategies, including full-size bathroom amenity dispensers, soap recycling, and surplus food donations. Marriott and Wyndham also piloted composting and textile recycling programs.

*Social Impact and Workforce Development:* Each hotel group maintained a strong focus on inclusive hiring, workforce development, and community engagement. Hilton committed to creating 5 million career opportunities by 2030, while Marriott and Wyndham set targets of 3 million job opportunities and training 1 million associates, respectively. Hilton and Marriott reported measurable progress in gender and ethnic diversity, with Hilton aiming for 50% women in leadership roles globally and 25% U.S. ethnic diversity by 2027. Marriott reported 40% female leadership in 2023. Wyndham adopted a broader DEI strategy but has not publicly set numeric diversity goals, instead focusing on inclusive talent pipelines and supplier diversity. Community investment programs were robust across all three brands. Hilton's Global Foundation and Marriott's Serve 360 platform contributed millions in grants, while Wyndham's "Wish Day" and disaster relief programs expanded globally. All three companies linked social

goals to the UN Sustainable Development Goals (SDGs), enhancing their global relevance and accountability.

*Governance and ESG Integration:* From a governance standpoint, each company emphasized transparency and stakeholder trust. Hilton continued to leverage LightStay, its proprietary ESG platform, while Marriott used the Sustainability Dashboard and Wyndham expanded its Wyndham Green Certification Program. All three companies published ESG disclosures aligned with GRI, SASB, and TCFD, with periodic updates to materiality assessments. Hilton and Marriott maintained ISO 14001 and 50001 certifications, and Wyndham reported ISO-aligned protocols and third-party validation of selected metrics. Each company reported active participation in industry alliances such as the Sustainable Hospitality Alliance and committed to public policy advocacy, particularly around climate legislation, workforce equity, and sustainable tourism infrastructure.

## **Discussion**

This study examined the longitudinal ESG performance of three major global hospitality brands—Hilton, Marriott International, and Wyndham Hotels & Resorts—from 2021 to 2023. The results affirm growing alignment between corporate sustainability goals and hospitality operations, a trend increasingly observed across the global service industry (Jones et al., 2016; Font et al., 2021).

The environmental dimension of ESG, often driven by regulatory pressure and consumer expectations (Graci & Dodds, 2008), has become central to corporate strategy in hospitality. Hilton's industry-leading reduction in emissions intensity (45.1%) reflects a deep operational commitment, supported by its proprietary LightStay platform, which aligns with recommendations by the Global Sustainable Tourism Council (GSTC, 2020) for data-driven environmental management.

Similarly, Marriott and Wyndham demonstrated significant reductions in water usage and waste intensity, showing a clear shift from compliance-based initiatives to proactive sustainability integration (Chan, 2008; Mihalič et al., 2012). Their adoption of Science Based Targets (SBTi) reinforces their responsiveness to climate science and investor expectations, aligning with findings from Hristov and Chirico (2019), who argue that such alignment enhances both legitimacy and long-term competitiveness.

However, while progress in emissions and water use is notable, waste management lags behind, particularly at Wyndham. This supports Gössling and Hall's (2019) contention that waste remains a systemic weakness in hotel sustainability due to infrastructural and behavioral barriers.

The hospitality sector's unique reliance on human capital places social ESG performance at its core. All three hotel brands reported expanding DEI initiatives and career development programs, echoing research by Baum et al. (2016), which highlights the sector's responsibility in creating upward mobility for vulnerable populations.

Hilton's and Marriott's numeric targets for gender and ethnic diversity reflect advanced stages of maturity in ESG integration (Kiron et al., 2012). Wyndham's approach, while broader, lacks the same degree of accountability through metrics, revealing a potential gap in stakeholder engagement or reporting structure (Bice, 2017).

Community engagement efforts, such as Hilton's global grants and Marriott's disaster relief and youth employment programs, align with SDG 8 (Decent Work and Economic Growth) and SDG 11 (Sustainable Cities and Communities). These efforts also affirm hospitality's potential role as a local economic multiplier, as outlined by Scheyvens & Biddulph (2018).

Governance practices across all three companies demonstrate significant advancement in line with GRI, SASB, and TCFD frameworks. This reflects an industry-wide push toward ESG transparency and comparability, a trend encouraged by scholars like Eccles and Krzus (2018).

Platforms like Hilton's LightStay, Marriott's Sustainability Dashboard, and Wyndham's Green Certification Program enable consistent internal monitoring, which is essential for longitudinal ESG performance evaluation (Font et al., 2012). However, disparities in reporting baselines (e.g., 2008, 2016, 2019) complicate direct emissions comparisons, underlining a common issue in cross-brand sustainability analysis (Boiral & Heras-Saizarbitoria, 2017).

Despite progress, the absence of independent verification in some disclosures and limited disclosure of Scope 3 emissions (especially from franchised operations) remains a weakness, as echoed by Delmas & Burbano (2011) in their critique of greenwashing risks in voluntary reporting.

## **Conclusion**

This comparative study highlights the increasing strategic integration of ESG principles across Hilton, Marriott, and Wyndham. Each brand demonstrates measurable progress toward its environmental goals, particularly in carbon emissions, water conservation, and waste management. Socially, they are driving inclusive hiring, workforce development, and community partnerships, though quantitative targets remain uneven across brands.

Governance practices are increasingly aligned with international disclosure frameworks, but differences in baseline years and platform capabilities affect comparability. While Hilton appears to lead in data integration and emissions progress, Marriott shows strength in social metrics and community engagement, and Wyndham demonstrates consistent but more conservative progress across all ESG dimensions.

Practical implications include the need for:

- Industry-standard baseline years to enable comparability.
- More consistent Scope 3 emissions disclosures.
- Stronger waste and biodiversity strategies, particularly in resort-heavy portfolios.

Future research could conduct property-level analyses to assess the implementation fidelity of corporate ESG policies; Evaluate guest perception of ESG initiatives and their impact on brand loyalty; Investigate the financial correlation between ESG performance and shareholder value in hospitality.

Overall, as sustainability moves from the periphery to the core of hospitality strategy, these hotel chains provide instructive models—each with unique strengths and areas for continued evolution.

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