ESG UNDER PRESSURE: CHALLENGES AND MATERIALITY STRATEGIES IN FINTECH

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Abstract: *This study investigates the challenges FinTech companies face when implementing Environmental, Social, and Governance (ESG) frameworks under conditions of regulatory uncertainty, and the materiality-driven strategies they deploy to overcome them. The proliferation of ESG requirements across global jurisdictions has created a fragmented and fast-evolving compliance landscape, placing disproportionate pressure on FinTech firms whose rapid growth and leaner organizational structures limit compliance capacity. Despite growing ESG scholarship in finance, empirical research addressing FinTech-specific implementation challenges under regulatory uncertainty remains limited.*
Methodologically, the study adopts an interpretivist, inductive approach grounded in qualitative inquiry. Semi-structured interviews were conducted with senior ESG professionals across consulting, private equity, and corporate roles, selected through stratified purposive sampling to capture both internal implementers and external advisors. Data were analysed through iterative grounded theory coding, open, axial, and selective, allowing theory to emerge directly from participant experience.
Findings reveal that regulatory uncertainty is the dominant barrier to ESG implementation, manifesting as shifting compliance requirements, resource misalignment, unclear board direction, and superficial tick-box behaviours. In response, high-performing FinTech firms adopt materiality-driven prioritization, concentrating ESG investment on issues of greatest financial and stakeholder relevance. Firms applying these strategies demonstrate stronger ESG integration and generate measurable business value beyond compliance, including improved capital access, talent retention, and competitive differentiation.
These findings contribute to both theoretical and practical discourse on sustainable finance in FinTech, offering actionable guidance for practitioners navigating regulatory complexity and for policymakers seeking to reduce the cost of regulatory fragmentation on fast-growing firms.

Keywords: *ESG implementation; regulatory uncertainty; materiality; FinTech*

JEL: G28; G32; M14

Introduction

The financial technology sector has undergone profound transformation over recent decades, with FinTech companies reshaping payments, lending, wealth management, and regulatory compliance. As these firms grow in influence, stakeholder expectations around Environmental, Social, and Governance (ESG) dimensions have intensified, spanning data privacy, social impact, governance standards, and environmental responsibility. Simultaneously, the regulatory landscape governing ESG in financial services remains fragmented, frequently updated, and inconsistent across jurisdictions, creating significant uncertainty for firms attempting to plan and invest with confidence. FinTech companies occupy a particularly exposed position in this environment. Unlike established financial institutions, they typically combine rapid growth trajectories with leaner organizational structures and historically limited compliance infrastructure. This makes it difficult to absorb the cost and complexity of evolving ESG requirements, particularly when those requirements shift faster than strategic planning cycles allow. The dual pressure of stakeholder expectations and regulatory uncertainty raises a fundamental question: how can FinTech companies implement effective ESG frameworks when the regulatory environment itself is unstable?

Despite growing ESG scholarship in finance broadly, empirical research addressing FinTech-specific ESG implementation challenges remains scarce. Existing literature tends to focus on larger, more established financial institutions operating in comparatively stable regulatory environments, contexts that do not reflect the operational realities of most FinTech firms. This study fills that gap by investigating two interlinked questions: what challenges does regulatory uncertainty create for ESG implementation in FinTech, and how do materiality-driven strategies enable firms to overcome them? The central hypothesis is that FinTech companies adopting materiality-focused ESG strategies, concentrating effort on issues of greatest business and stakeholder relevance, are more effective at navigating regulatory uncertainty and realizing business value than those focused primarily on compliance. The study makes both a theoretical contribution, extending ESG implementation theory to a FinTech context, and a practical one, providing evidence-based guidance for firms and policymakers operating in this space.

Literature Review

A growing body of evidence links ESG performance to long-term organizational outcomes (Eccles, Ioannou and Serafeim, 2014; Friede, Busch and Bassen, 2015), yet scholars caution that mandatory disclosure regimes, such as the EU's Corporate Sustainability Reporting Directive, risk fostering tick-box compliance behaviours rather than substantive ESG integration (Cornell and Damodaran, 2020). FinTech firms face distinct implementation challenges that generic frameworks and current literature fail to capture, including data ethics, digital inclusion, and digital infrastructure footprint (Wang et al., 2023). Institutional Theory further explains ESG adoption as a response to external pressure rather than strategic intent (Meyer and Rowan, 1977), consistent with this study's finding that regulatory uncertainty drives compliance-only behaviours and underscoring the need for materiality-driven strategies as a more effective alternative.

Data and Methodology

Research Philosophy and Design

This study adopts an interpretivist philosophy, emphasizing understanding through the meanings and lived experiences of participants rather than seeking objective, generalizable laws. An inductive approach was applied: data were collected and analysed to allow theory to emerge from patterns in participant experience (Saunders, Lewis and Thornhill, 2019). Grounded theory was selected as the research strategy for its strength in generating theory from empirical data in complex, under-researched settings (Glaser and Strauss, 1967; Strauss and Corbin, 1998). A mono-method qualitative design was employed, relying on semi-structured interviews as the sole data collection instrument, ensuring methodological consistency and depth.

Sample and Data Collection

Ten semi-structured interviews were conducted via video conference over one month (September–October 2025). Participants were selected through stratified purposive sampling to capture diverse stakeholder perspectives across both internal ESG implementers and external advisors. Each session lasted 30–45 minutes, guided by nine open-ended questions targeting ESG challenges and strategic responses. Participants were anonymized as INT1–INT10. Interviews were recorded with consent, transcribed using automated tools, verified for accuracy, and audio files permanently deleted thereafter.

Data Analysis and Trustworthiness

Data were analysed using iterative grounded theory coding: open coding to identify initial concepts, axial coding to establish relationships between categories, and selective coding to develop core themes (Strauss and Corbin, 1998). This process allowed theory to emerge from participant experience without imposing prior assumptions. Trustworthiness was addressed across four dimensions following Lincoln and Guba (1985): credibility through detailed participant profiling; transferability through thick description of the research context; dependability through rigorous process documentation; and confirmability through systematic researcher reflexivity, including mock interviews and peer review of the interview guide to mitigate bias.

Figure 1 illustrates the three-stage coding process applied in this study, showing how open codes derived inductively from participant data were grouped into axial categories through constant comparative analysis, and subsequently refined into the two core themes reported in Section 4.

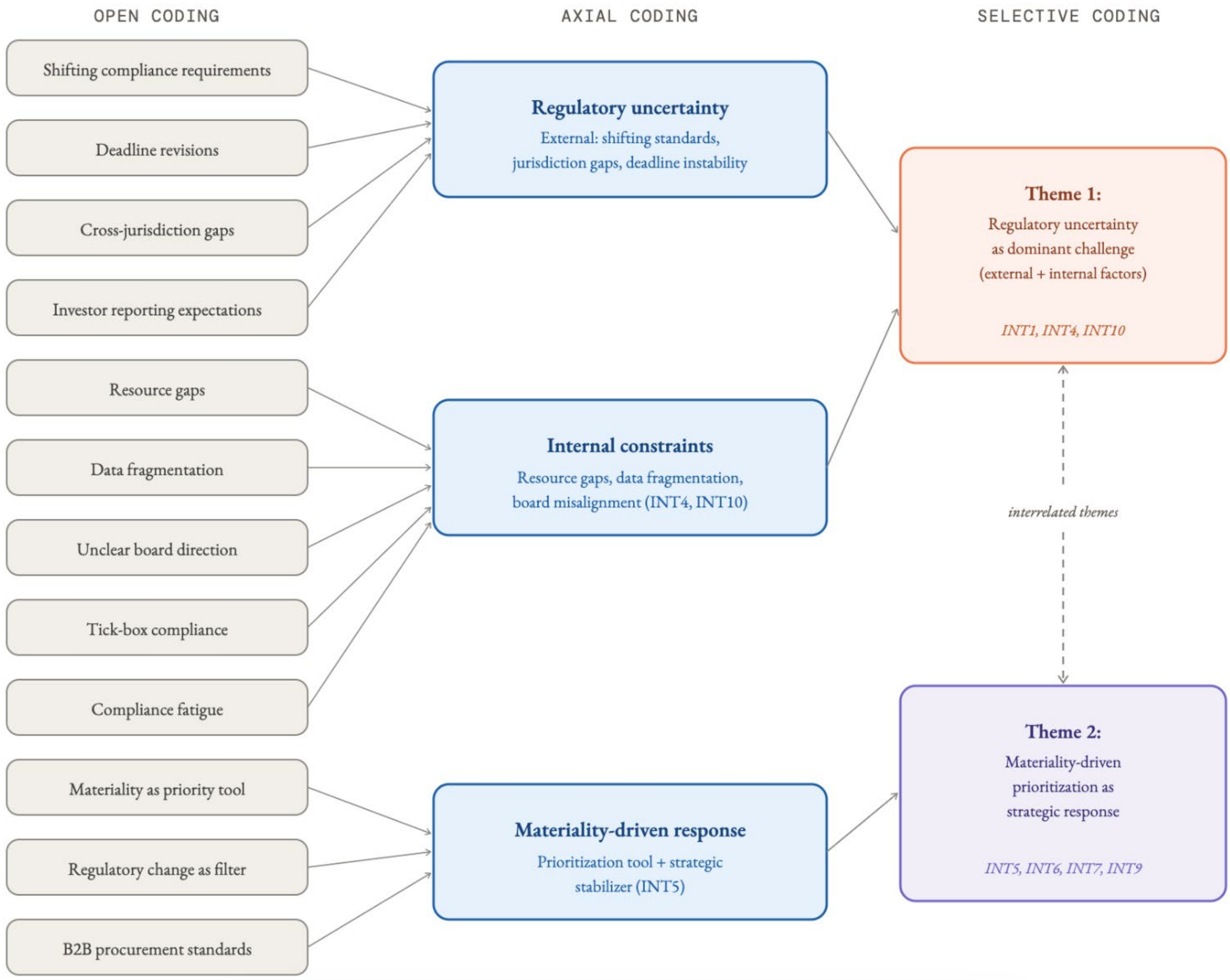

Figure 1. Grounded theory coding structure and emergent themes

Source: Author's own elaboration based on grounded theory coding of semi-structured interviews (Strauss and Corbin, 1998). Open codes are displayed as an unsorted pool; axial groupings emerged inductively. Layout is a simplified representation of an iterative process.

Results and Discussion

Overview of Findings

Analysis of the ten interviews through iterative grounded theory coding surfaced two dominant and interrelated themes: regulatory uncertainty as the defining challenge for ESG implementation in FinTech, and materiality-driven prioritization as the most effective strategic response. These themes were consistent across all participant types, consultants, investors, and corporate ESG personnel, and reinforced by the existing body of literature, though extending it in important ways specific to the FinTech context.

Figure 2 provides a schematic overview of the two themes and their relational structure, illustrating how regulatory uncertainty and its associated internal pressures generate compliance-only behaviours, while materiality-driven prioritization produces measurable business value beyond compliance.

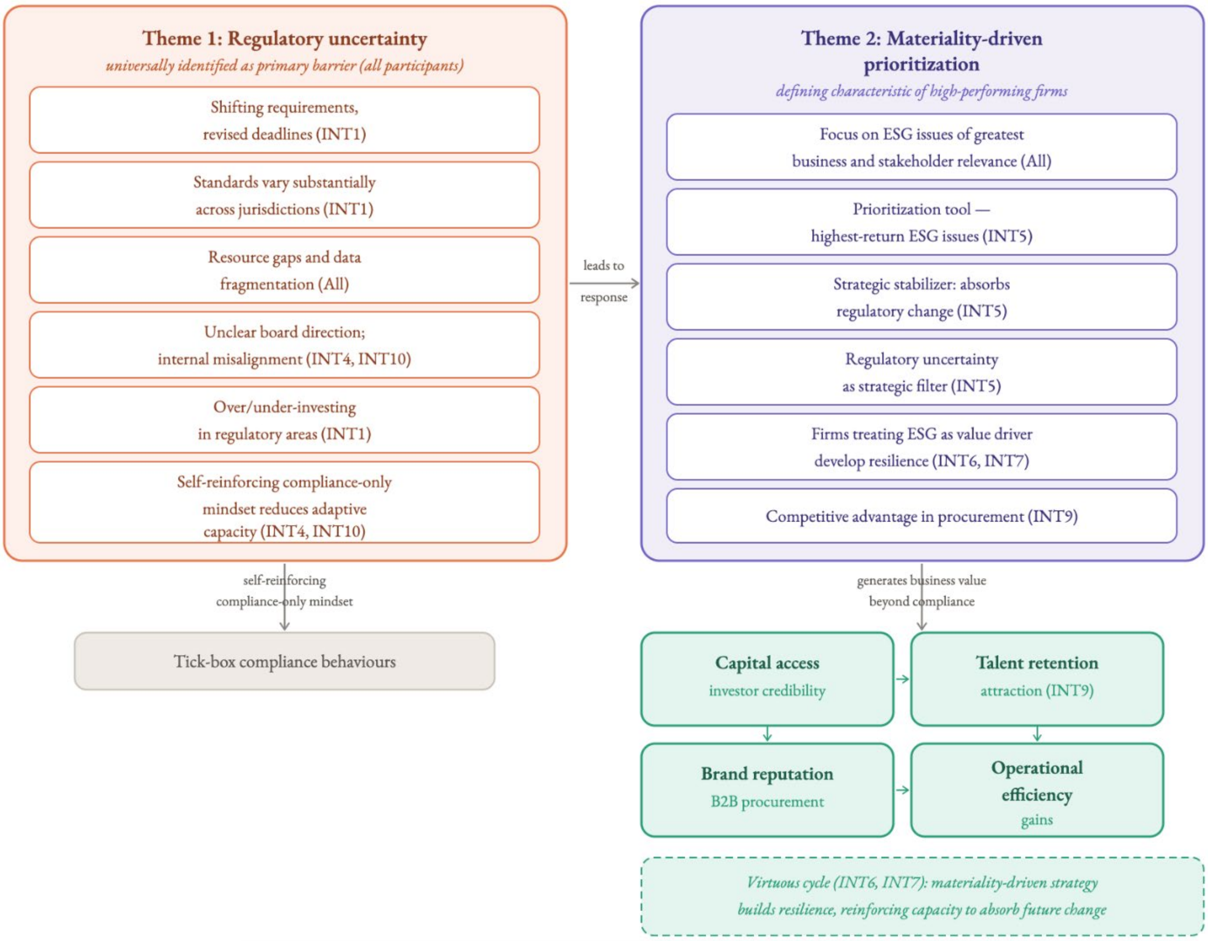

Figure 2. ESG challenges and materiality-driven strategic response: a relational model
Source: Author's own elaboration based on interview data (INT1–INT10, September–October 2025)

Theme 1: Regulatory Uncertainty as the Dominant Challenge
Regulatory uncertainty was universally identified as the primary barrier to effective ESG implementation. Participants described operating against a moving target: ESG requirements shift across reporting periods, deadlines are revised, and standards vary substantially across the jurisdictions in which FinTech firms operate globally. This instability erodes planning capacity, creates compliance fatigue, and makes long-term ESG investment difficult to justify internally. As INT1 noted, firms find themselves simultaneously over-investing in areas that may be deprioritized by future regulation and under-investing in areas that may become mandatory.
This external uncertainty compounds a set of internal pressures that were consistently raised across interviews. Resource gaps and data fragmentation limit firms' ability to meet evolving reporting demands, particularly smaller FinTechs that lack the data infrastructure taken for granted in larger financial institutions. Unclear board-level direction on ESG priorities creates internal misalignment between sustainability functions and business units. The resulting environment encourages superficial, tick-box compliance behaviours, where ESG activity is shaped by what is easiest to report rather than what generates the most value. INT4 and INT10 both emphasized that this compliance-only mindset is self-reinforcing: firms that invest in compliance rather than strategy become less capable of the adaptive thinking needed to respond to regulatory change.

Participants further noted that the challenge extends beyond formal regulatory requirements. Investor reporting expectations, business-to-business customer procurement standards, and evolving industry norms are all moving rapidly, often ahead of regulation, adding multi-directional pressure on firms that lack a coherent ESG strategy to anchor their responses. FinTech firms were consistently described as particularly exposed to this combination of external volatility and internal constraint, given their growth pace, limited compliance infrastructure, and the technology-specific ESG risks, data governance, algorithmic accountability, digital energy use, that add complexity beyond the standard ESG agenda.

Theme 2: Materiality-Driven Prioritization as the Strategic Response

The defining characteristic of high-performing firms, identified consistently across interviews regardless of participant type, was the use of robust materiality assessment as the primary strategic response to regulatory uncertainty. Rather than attempting comprehensive conformity with every emerging requirement, effective organizations invest in identifying the ESG issues of greatest relevance to their specific business model, financial position, and key stakeholder groups, and direct resources accordingly. This materiality-first approach emerged not as a reductive simplification, but as a principled framework for making consequential decisions under uncertainty.

Participants described materiality assessment functioning as both a prioritization tool and a strategic stabilizer. As a prioritization tool, it directs limited compliance and sustainability resources toward ESG actions with the greatest return, whether in terms of risk reduction, investor credibility, talent retention, or operational efficiency. As a strategic stabilizer, it provides a reference framework that absorbs regulatory change: when new requirements emerge, materiality-focused firms can evaluate them against an established set of priorities rather than reacting ad hoc to each development. INT5 described this as transforming regulatory uncertainty from an external threat into a strategic filter, a mechanism for deciding what matters rather than a reason for inaction.

The business value generated by the materiality-focused strategies extended well beyond regulatory compliance. Participants consistently identified improved access to capital, stronger talent attraction and retention, enhanced brand reputation with investors and business-to-business customers, and operational efficiency gains as direct outcomes of credible, targeted ESG performance. INT9 observed that firms demonstrating strategic, materiality-grounded ESG credentials increasingly command a competitive advantage in markets where ESG performance influences procurement and investment decisions. INT6 and INT7 noted that firms treating ESG as a genuine value driver rather than a compliance cost develop organizational resilience that makes them better placed to absorb future regulatory change, creating a virtuous cycle between materiality-focused strategy and adaptive capacity.

Conclusions

This study demonstrates that regulatory uncertainty is the defining challenge for ESG implementation in FinTech, and that materiality-driven prioritization is the most effective strategic response available to firms in this environment. The findings confirm the central hypothesis: FinTech companies anchoring ESG decisions in robust materiality assessment, focusing resources on issues of greatest business and stakeholder relevance, achieve stronger ESG integration and generate measurable value beyond compliance, outperforming peers whose ESG activity is shaped primarily by regulatory minimums.

The theoretical contribution of this study is an empirically grounded account of how regulatory uncertainty shapes ESG adoption in FinTech, and how materiality functions simultaneously as a prioritization tool and a strategic stabilizer under conditions of regulatory flux. This extends existing ESG implementation theory, which has largely assumed stable regulatory contexts and larger organizational capacity, to a sector where neither condition holds. The findings also highlight the compounding effect of external regulatory uncertainty and internal organizational constraints, resource gaps, data fragmentation, and compliance-only mindsets, as a distinctive dynamic of FinTech ESG implementation not well captured in existing literature.

For practitioners, the key implication is to invest early in materiality assessment and build phased, flexible compliance frameworks designed to evolve as regulatory clarity improves, rather than attempting to satisfy every current requirement comprehensively. For policymakers, the findings underscore the disproportionate cost that regulatory fragmentation and instability impose on smaller, fast-growing firms, a cost that undermines the very ESG adoption that regulation seeks to promote. Greater cross-jurisdictional harmonization and longer regulatory lead times would substantially reduce this burden.

Limitations and Future Research

Notwithstanding these contributions, several limitations should be acknowledged. The sample of ten participants, while appropriate for a grounded theory design oriented toward theoretical saturation, limits the transferability of findings to broader FinTech populations. The study does not claim representativeness, and participants were drawn primarily from consulting, private equity, and corporate ESG roles, meaning variation across firm size, jurisdiction, and sub-sector within FinTech remains unexplored. The mono-method qualitative design further means that the proposed relationships between regulatory uncertainty, materiality-driven strategy, and business value outcomes represent conceptual rather than causal claims.

Future research should address these limitations through quantitative investigation. Survey-based studies measuring the relationship between materiality assessment maturity and ESG performance outcomes across a diverse sample of FinTech firms would allow the theoretical model developed here to be tested at scale. Comparative cross-jurisdictional research examining how different regulatory environments shape FinTech ESG adoption and longitudinal designs tracking how firms' strategies evolve as regulatory clarity improves would further extend the adaptive capacity dynamics identified in this study.

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