



# **From Boardroom to Blockchain:** Reconfiguring Agency, Accountability, and Governance in a Digitally Mediated Economy



## **Abstract**

Digital transformation has progressively altered how firms coordinate activity, manage information, and establish trust. Distributed Ledger Technology (DLT), including blockchain and smart contracts, intensifies this transformation by enabling partially automated verification and rule enforcement, thereby challenging established corporate governance assumptions about hierarchy, accountability, and institutional intermediation. Drawing primarily on agency theory and transaction cost economics, and informed by platform governance scholarship, this paper examines how DLT reshapes stakeholder relationships by reducing information asymmetry and transaction costs while simultaneously generating new forms of agency, accountability gaps, and systemic governance risk. The analysis considers how DLT may transform shareholder engagement, board oversight, managerial discretion, audit and compliance functions, and the governance expectations of wider stakeholder groups. The discussion also reflects on how the post-COVID-19 “new normal” heightened demand for digitally mediated trust (Zhang and Liu, 2020). The paper argues that DLT is unlikely to replace corporate governance; rather, it reconstitutes governance into hybrid configurations in which algorithmic controls coexist with human judgement, legal frameworks, and institutional legitimacy.

## **1. Introduction**

Corporate governance has historically been organized around the problem of delegated control: corporate assets are controlled by managers and directors, while ownership rights are dispersed among shareholders and, in broader stakeholder conceptions, among multiple constituencies affected by corporate activity. Agency theory conceptualizes this tension as a contractual relationship between principals and agents under conditions of conflicting interests and asymmetric information (Jensen and Meckling, 1976; Eisenhardt, 1989). Governance mechanisms — boards, audits, disclosure regimes, and regulatory oversight — can be interpreted as institutional responses designed to constrain opportunism, align incentives, and reduce welfare loss caused by agency costs.

DLT proposes an alternative trust architecture. By enabling immutable, verifiable records and, through smart contracts, auto-execution of agreed rules, DLT may reduce monitoring and verification costs and compress decision cycles. Werbach (2018) describes blockchain as an architecture for ‘trustless trust’ in which stakeholders can rely on system outputs without trusting any single intermediary. The strongest version of this proposition implies far-reaching institutional change: that certain coordination functions traditionally performed by firms, boards, auditors, and regulators could be partially displaced by protocols and algorithmic consensus.

Yet the potential consequences are not uniformly beneficial. Protocols may become misaligned with changing environments; smart contract bugs may propagate error; decentralization may diffuse responsibility; and governance power may shift to new actors, such as protocol developers and token holders. The aim of this paper is to examine, in academic terms, how DLT affects stakeholders — shareholders, boards, management, and wider constituencies — and how these effects disrupt the established notion of corporate governance.

## **2. Literature Review**

Corporate governance is inherently interdisciplinary, drawing on finance, economics, law, accounting, and management (Clarke, 2004). Although agency theory has dominated empirical and normative governance scholarship, alternative lenses — stewardship theory, stakeholder theory, resource dependence, and transaction cost economics — address limitations in narrow contractual models. A recurring theme across these frameworks is that governance arrangements are contingent on institutional context, information structure, and coordination costs.

The agency dilemma arises whenever one party delegates authority to another. As corporate ownership became dispersed through joint-stock structures, the separation of ownership and control deepened (Berle and Means, 1932), increasing the importance of mechanisms that enable accountability and constrain managerial discretion. Agency theory formalizes these issues by assuming utility-maximizing behavior and by studying

how incentive instruments and monitoring arrangements can mitigate hidden action and hidden information problems (Eisenhardt, 1989).

However, empirical findings linking ‘good’ governance to superior performance are mixed and often context-dependent (Bhagat, Bolton and Romano, 2007). Some evidence suggests long-term performance benefits for well-governed firms in specific settings (Selvaggi and Upton, 2008), but broad indices do not yield consistent causal relationships. This ambiguity has encouraged complementary approaches. Transaction cost economics argues that firms exist where internal coordination is cheaper than market transactions, but governance structures must adapt to uncertainty and scale (Coase, 1937; Williamson, 1975; Williamson, 1988). These arguments become particularly salient when technology changes the economics of coordination.

Digital disruption demonstrates that governance and organizational identity can condition strategic adaptation. Kodak’s failure to respond to digital photography has been linked to organizational resistance and hierarchical inertia (Lucas and Goh, 2009), consistent with broader arguments that incumbents often struggle with disruptive innovation (Christensen, 2000). In parallel, platform firms have reorganized value creation across ecosystems rather than closed hierarchies, prompting proposals for ‘platform governance’ as an alternative regulatory and organizational paradigm (Fenwick, McCahery and Vermeulen, 2019).

In DLT scholarship, Beck, Müller-Bloch and King (2018) describe a ‘blockchain economy’ characterized by new allocations of decision rights, accountability, and incentives, often instantiated through decentralized autonomous organizations. These contributions suggest that blockchain-enabled governance can depart radically from established notions of corporate governance, but they also indicate that practical instantiations may diverge from conceptual ideals.

### 3. Stakeholder Effects of DLT Adoption

DLT affects stakeholders by altering information availability, verification mechanisms, enforcement processes, and participation structures. For shareholders, permissioned ledgers can create a near real-time, immutable record of ownership, transactions, and selected corporate disclosures. In principle, this reduces information asymmetry and may enhance confidence in reported data. It may also support continuous or event-driven voting mechanisms, potentially reducing reliance on episodic annual meetings and on intermediaries in share registry and proxy plumbing.

For boards, DLT may reallocate attention from retrospective verification towards prospective system governance. If key compliance checks and reporting controls are encoded into smart contracts, boards may spend less time validating data integrity and more time overseeing strategic risk, ethical judgement, and the governance of the digital infrastructure itself. Nevertheless, boards cannot delegate fiduciary duties to code. The board's accountability shifts from 'did management follow the rules?' to 'were the right rules designed, implemented, monitored, and updated?'

Management experiences a dual effect. Automated controls can reduce bureaucracy and accelerate execution, consistent with arguments that hierarchical decision-making can become slow and costly in fast-paced economies (Malone, 2004). At the same time, managerial discretion is constrained by code-based enforcement, and management assumes new responsibilities for cyber risk, protocol reliability, and data governance. Where oracles or off-chain data feeds are required, the attack surface widens and governance risk increases.

Wider stakeholders — employees, customers, communities, and regulators — may gain from verifiable audit trails and the potential for stronger ESG and supply chain disclosure. However, transparency also raises privacy and surveillance concerns, and digital participation mechanisms can exacerbate inequality if access depends on technical literacy or concentrated token ownership. The stakeholder consequences of DLT are therefore not uniformly beneficial; they involve a redistribution of power and risk across the governance ecosystem.

## 4. DLT, Agency Reconfiguration, and Hybrid Governance

A central theoretical implication of DLT is that it may reduce some traditional agency costs while creating new agency relationships. Conventional agency problems center on managers' ability to exploit information asymmetry and discretion (Jensen and Meckling, 1976). DLT reduces certain asymmetries by making records verifiable and tamper-resistant. Yet agency does not disappear; it relocates. Protocol designers, core developers, administrators of permissioned networks, and dominant token holders can shape the rules, upgrades, and parameter settings that govern stakeholder outcomes. Governance capture becomes possible through concentrated voting power, control of development roadmaps, or influence over key infrastructure.

Furthermore, 'code is law' claims underestimate the importance of adaptation. As environments change, protocols may become inappropriate and require modification. The need for upgrades introduces governance processes that can reintroduce conflict, bargaining, and opportunism. This insight supports the view that DLT will not eliminate governance but reconstitute it into hybrid forms in which algorithmic enforcement coexists with legal dispute resolution, human judgement, and institutional legitimacy.

Hybrid governance is also reinforced by practical realities of regulation and fiduciary responsibility. Corporate law assigns duties to human directors and officers; audit regimes and regulatory accountability remain human-centered. Consequently, the most plausible future is a layered governance structure: automated compliance and verification for routine controls; enhanced transparency for stakeholders; and human-led boards and regulators providing judgement, accountability, and adaptation where ambiguity and ethical trade-offs persist. The post-COVID-19 shift toward remote work and digitally mediated processes amplified the need for such digital trust infrastructures (Zhang and Liu, 2020), accelerating the relevance of DLT-enabled governance tools.

## 5. Conclusion

DLT introduces a trust architecture that challenges the institutional foundations of corporate governance. By reducing transaction and verification costs and enabling automated enforcement, DLT can alter shareholder engagement, board oversight, managerial discretion, and stakeholder transparency. Yet DLT also generates new vulnerabilities — code risk, oracle dependence, governance capture, and diffused accountability — that require governance rather than eliminate it. The net effect is best understood as a reconstitution of governance into hybrid arrangements where algorithmic controls and immutable records complement, but do not replace, human judgement, fiduciary responsibility, and legal legitimacy.

From a stakeholder perspective, the critical governance question is not whether ‘companies without managers’ will emerge, but how boards, regulators, and stakeholders will design and supervise digital infrastructures so that efficiency gains do not come at the cost of accountability, fairness, or resilience. Empirical research remains essential to evaluate these claims in practice, particularly through context-rich case studies that capture the social and institutional dynamics of DLT adoption.

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