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Managing Firms Without Ownership of Core Assets: Strategic Coordination in Decentralized Digital Ecosystems

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Abstract

Digital economies are increasingly characterized by firms that create and capture value without owning the core assets on which their operations depend. This theory-development article advances a coordination-centric perspective to explain how focal firms achieve competitive advantage in decentralized digital ecosystems. Integrating research on asset-light business models, platform governance, and distributed coordination, the article identifies a fundamental shift from ownership-based control to orchestration-based advantage. It argues that firms no longer rely on asset possession but on their capacity to structure and align interactions among legally independent actors through platforms, standardized interfaces, data-exchange protocols, and relational governance mechanisms. The proposed framework conceptualizes the firm as a coordination hub embedded within a network of externally owned assets, where strategic influence is exercised through architectural design and adaptive governance rather than hierarchical authority. It elucidates key mechanisms—including dependence management, dynamic repositioning, and feedback-driven governance—that enable firms to sustain performance under conditions of distributed control and heightened interdependence. Six theoretical propositions specify the causal relationships linking orchestration intensity, ecosystem participation, and resilience to sustained competitive advantage. By reconceptualizing firm boundaries as permeable and relational, the article extends digital business and strategic management theory into fully decentralized contexts. It contributes by clarifying the micro-foundations of non-ownership strategy and by demonstrating how coordination capabilities substitute for ownership as the primary locus of control. The framework further offers managerial guidance for designing and governing ecosystems in which influence must be achieved without asset ownership, positioning orchestration capability as the defining source of advantage in the digital age.

Keywords Asset-light firms, Decentralized digital ecosystems, Strategic orchestration, Non-ownership coordination, Platform-mediated governance, Ecosystem dependence

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Introduction

The digital transformation has redefined how firms create and capture value. Traditional theories of competitive advantage, rooted in resource-based view and transaction-cost economics, assume that ownership of core assets—physical infrastructure, proprietary technology, or exclusive data—underpins sustained performance [1–9]. Yet contemporary digital ecosystems reveal a contrasting

reality: leading firms operate successfully without owning the assets central to their business models [2]. Ride-sharing platforms coordinate vast fleets of vehicles they do not own [6]; marketplace operators orchestrate inventories held by independent sellers [10, 11]; decentralized finance protocols enable value exchange without controlling underlying tokens or ledgers.

This phenomenon is accelerating in decentralized digital ecosystems characterized by blockchain-enabled networks, open-source protocols, and multi-sided platforms [3] where control is distributed across autonomous participants. Here, firm boundaries blur as value creation becomes relational and emergent rather than hierarchical and internalized [12–18]. The transition from ownership-based advantage to orchestration-based advantage raises fundamental questions: How do firms maintain strategic control and competitive positioning when core assets reside outside their legal boundaries [4]? What coordination mechanisms replace ownership as the primary lever of influence [7]? And what risks and opportunities arise from heightened dependence on external asset holders and complementors [19–21]?

Existing literature has begun documenting asset-light business models and platform orchestration [8], yet a unified theoretical explanation remains incomplete [12, 15]. Studies in strategic management emphasize generativity and complementor management within platforms [20, 22], while information systems research highlights governance design in decentralized settings [2, 23–27]. However, few works fully integrate the implications of non-ownership for firm-level strategy [10], particularly the dynamic interplay among coordination mechanisms, ecosystem dependence, and performance feedback loops [23]. This gap is critical because decentralized ecosystems introduce unique challenges: reduced hierarchical authority, heightened coordination costs, and vulnerability to participant defection or platform forking [6, 17, 26].

The present article addresses this gap by developing a novel theory of strategic coordination in decentralized digital ecosystems. It argues that competitive advantage now emerges from a firm's ability to orchestrate value creation across non-owned assets [1] through deliberate deployment of platforms, interfaces, standards, and governance protocols [9]. The framework reconceptualizes firm boundaries as permeable coordination hubs rather than ownership enclosures [21].

Five theoretical propositions formalize the causal pathways linking orchestration intensity to ecosystem performance [14], dependence management [19], and strategic repositioning [24]. An architecture of coordination emphasizes feedback mechanisms that enable continuous refinement of governance [2, 6]. The theory contributes to digital business and management studies by (1) clarifying the micro-foundations of non-ownership strategy [8], (2)

extending platform-ecosystem research into fully decentralized contexts [12], and (3) offering managers actionable principles for sustaining advantage amid asset dispersion [15, 18].

The remainder of the article proceeds as follows. The next section synthesizes theoretical foundations from asset-light models, platform governance, and decentralized coordination [3, 7]. The subsequent theory-development section presents the core framework, propositions, and supporting figure [11, 22]. Overall, the article establishes orchestration without ownership as a coherent strategic logic for the digital age [1, 20].

Theoretical Foundations and Literature Synthesis

Literature on digital business reveals a progressive decoupling of value creation from asset ownership. Early work documented the rise of asset-light operations in tourism and sharing economies [11], demonstrating superior financial performance through reduced capital intensity [12]. These studies established that firms can leverage external resources via contractual or relational arrangements [13], yet they stopped short of theorizing sustained coordination in highly decentralized settings [28, 29].

Subsequent research shifted focus to platform ecosystems as the primary organizational form enabling non-ownership strategies. Digital platforms act as intermediaries that coordinate complementary assets without internalizing them [1], relying instead on network effects and generativity [9, 20]. Gawer's foundational contributions delineate how platform boundaries and interfaces shape ecosystem evolution [1], showing that strategic control arises from architectural design rather than ownership [9]. Complementary studies emphasize governance mechanisms—rules, standards, and incentives—that align participant behaviors in multi-sided markets [2, 22, 26].

Decentralized ecosystems introduce additional layers of complexity. Blockchain-based and open protocols distribute decision rights across nodes [3], rendering traditional hierarchical control ineffective [5, 25]. Research on decentralized information platforms and distributed governance highlights the need for novel coordination mechanisms, such as smart contracts, reputation systems, and data-sharing protocols [3, 6, 17]. These mechanisms

enable focal firms to exert influence through orchestration rather than fiat [10, 21, 23].

A parallel stream examines complementor dependence and ecosystem participation. Firms must manage interdependencies while preserving autonomy for external asset holders [18], creating inherent tensions between generativity and control [20, 22]. Value-creation trade-offs emerge: excessive openness risks free-riding [18], while overly restrictive governance stifles innovation [24]. Strategic orchestration, therefore, requires balancing openness with selective intervention [7, 8, 15].

Recent contributions integrate these insights into broader theories of ecosystem meta-organizations and distributed governance. Platform strategies are reconceptualized as meta-organizational capabilities that span firm boundaries [21]. Empirical and conceptual work in manufacturing, sharing economies, and emerging decentralized science ecosystems confirms that orchestration capabilities—encompassing interface design, standard-setting, and relational governance—drive performance when ownership is absent [7, 15, 17, 25]. Internationalization and digitalization further amplify asset-light logics [13], enabling firms to reconfigure global value chains without capital ownership [14, 29].

Table 1 clarifies the theoretical transition from ownership-based control to orchestration-based control that underpins the manuscript’s reconceptualization of the firm.

Table 1. Ownership-based control versus orchestration-based control in digital ecosystems

Analytical dimension	Ownership-based firm logic	Orchestration-based firm logic	Strategic implications in decentralized digital ecosystems
Primary source of control	Legal ownership and hierarchical authority	Interface design, standards, protocols, and governance influence	Firms shape outcomes without internal core assets
Boundary of the firm	Defined by owned assets and	Defined by coordination that reaches	Firm boundaries become

	internalized activities	across legally external actors	permeable and relational
Core strategic asset	Proprietary infrastructure, physical assets, and exclusive control rights	Orchestration capability, platform architecture, data visibility, and governance design	Advantage depends on coordinating distributed resources for better performance relative to rivals
Mechanism of alignment	Command, monitoring, contracts, and vertical integration	Incentives, interoperability, reputation, algorithmic matching, and adaptive rules	Alignment shifts from enforced to structured participation
Role of external actors	Suppliers or contractors at the edge of the firm	Complementors, node operators, asset holders, and protocol participants within the value system	External actors become producers of competitive advantage
Nature of dependence	Reduced through ownership and internalization	Inherent and strategically managed rather than eliminated	Dependence becomes a condition to be orchestrated, not avoided
Cost logic	High capital commitment and lower direct dependence	Lower capital intensity and higher coordination complexity	Asset-light scaling through asset bundling for governance burden
Scalability mechanism	Expansion through asset accumulation and organizational growth	Expansion through ecosystem participation and modular replication	Growth accelerates when standard interface well designed
Key vulnerability	Asset rigidity, fixed-cost lock-in, and underutilization	participant defection, fragmentation, multihoming, and protocol instability	Risk management must focus on ecosystem continuity rather than

			intern contr
Data function	Supporting internal optimization	Serving as an invisible coordination and control lever across external actors	Data governa becom central to owners advant
Innovation pattern	Innovation concentrated inside the firm	Innovation emerges through distributed contributions and generativity	Firms n enab contrib while preserv cohere
Performance logic	Efficiency from ownership and internal control	Value creation from external alignment, plus value capture through governance position	Super perform depend occupyi centr orchestr role

Synthesizing these streams reveals three foundational pillars for a new theory: (1) asset dispersion as the structural condition of digital ecosystems [11, 12, 29]; (2) orchestration mechanisms as the functional substitute for ownership [1, 9, 10]; and (3) feedback-driven governance as the dynamic process sustaining advantage [5, 6, 18]. Yet the literature lacks an integrative framework that explicitly links these pillars to firm-level competitive positioning in fully decentralized contexts. The following theory-development section addresses this integration by proposing a coordination-centric model of non-ownership strategy.

Orchestration Without Ownership: A Theory of Strategic Coordination in Decentralized Digital Ecosystems

Building on the synthesized foundations, this section develops a novel theoretical explanation of how firms achieve strategic coordination without ownership of core assets. The central thesis is that in decentralized digital ecosystems, competitive advantage derives from orchestration capabilities that enable focal firms to align

distributed participants through platforms, interfaces, standards, and governance mechanisms. This shifts the locus of control from asset possession to relational and architectural influence.

Asset-light configurations represent the structural precondition for the proposed theory. Firms deliberately minimize owned assets to reduce capital lock-in and enhance agility [11, 12, 29]. In practice, this manifests as reliance on external asset holders—vehicle owners, content creators, or node operators—who retain legal title while contributing to the focal firm's value proposition [7, 15]. Dependence on these external parties is not a liability but a strategic choice that amplifies scalability, provided coordination mechanisms mitigate defection risks [13, 18].

Orchestration replaces ownership as the primary control modality. Focal firms deploy digital platforms as coordination hubs, using standardized interfaces and data-exchange protocols to direct value flows without hierarchical authority [1, 9, 10]. Control emerges indirectly through architectural design (e.g., API governance) and relational governance (e.g., incentive alignment and reputation systems) [2, 22, 26]. This approach enables firms to capture value from ecosystem-wide generativity while preserving participant autonomy [20, 21].

Non-ownership models introduce specific coordination logics. Unlike traditional supply chains, decentralized ecosystems feature emergent rather than planned coordination. Focal firms must therefore cultivate dynamic capabilities in standard-setting and in interpreting feedback to maintain ecosystem coherence [6, 17, 23]. The absence of ownership intensifies the need for trust-building mechanisms and transparent governance to prevent fragmentation [3, 25, 26].

Platforms serve as the infrastructural backbone. By controlling key interfaces and data layers, focal firms exert soft power over complementors and asset holders [1, 9, 22]. Data-mediated coordination further strengthens influence: real-time analytics and algorithmic matching create de facto control loops even when legal ownership remains external [5, 14, 27].

Strategic positioning in such systems requires continuous repositioning within the ecosystem network. Firms must balance dependence on external assets with the cultivation of unique orchestration skills that are difficult to imitate [18, 21, 24]. Risks include coordination failures, participant

exodus, and value-capture erosion; opportunities arise from accelerated innovation and reduced capital requirements [6, 17, 25].

The theory is formalized through the following propositions, each elaborated to clarify underlying mechanisms, boundary conditions, and theoretical implications.

Proposition 1

In decentralized digital ecosystems, greater asset dispersion increases the positive effect of orchestration capabilities on focal-firm performance, as coordination mechanisms substitute for ownership-based control [1, 9, 11, 29].

Asset dispersion—defined as the extent to which critical assets are externally owned and distributed across independent actors—fundamentally alters the locus of strategic control. As dispersion increases, the marginal value of ownership declines, and firms become increasingly reliant on their ability to coordinate rather than control resources. Under such conditions, orchestration capabilities—encompassing platform design, interface governance, and ecosystem alignment—emerge as the primary drivers of performance. These capabilities enable the focal firm to structure interactions among dispersed actors, ensuring that value creation remains coherent despite the absence of hierarchical authority. The proposition implies a substitution effect: the greater the dispersion of assets, the greater the reliance on orchestration to achieve efficiency, scalability, and competitive differentiation. Consequently, firms operating in highly dispersed ecosystems can outperform ownership-heavy competitors if they excel in coordination design and execution.

Proposition 2

Platform-mediated interfaces and standards positively moderate the relationship between ecosystem participation and value co-creation, enabling non-ownership strategic positioning [2, 10, 22].

Ecosystem participation alone does not guarantee value creation; rather, the structure of interactions determines whether contributions from diverse participants translate into coherent outcomes. Platform-mediated interfaces (e.g., APIs) and standards (e.g., data protocols, technical specifications) serve as critical coordination devices that shape how actors interact, exchange resources, and co-create value. These mechanisms reduce ambiguity,

enhance interoperability, and facilitate scalable collaboration across heterogeneous participants. By standardizing interactions, focal firms can amplify the benefits of ecosystem participation without requiring ownership of complementary assets. This moderating effect is particularly important in decentralized contexts, where coordination must occur without centralized authority. The proposition suggests that firms that invest in robust interfaces and standard design can transform dispersed participation into structured value creation, thereby strengthening their strategic position despite lacking ownership.

Proposition 3

Relational governance mechanisms (incentives, reputation systems) reduce coordination costs and defection risks when core assets are externally held, thereby sustaining competitive advantage [3, 18, 26].

When assets are externally owned, the risk of opportunistic behavior and coordination failure increases. Relational governance mechanisms—such as incentive structures, reputation systems, and community norms—serve as substitutes for formal authority, aligning the interests of independent participants with those of the focal firm. These mechanisms reduce coordination costs by fostering trust, encouraging cooperation, and discouraging opportunism. For example, reputation systems can signal reliability and quality, enabling participants to make informed decisions and reducing uncertainty in interactions. Incentive mechanisms, in turn, align individual actions with collective goals, ensuring sustained engagement and contribution. The proposition highlights that effective relational governance not only mitigates risks but also enhances the stability and performance of the ecosystem, enabling firms to maintain a competitive advantage without direct asset ownership.

Proposition 4

Feedback loops between ecosystem performance metrics and governance refinement enable focal firms to dynamically reposition without owning assets, creating a path-dependent orchestration advantage [5, 6, 17].

In decentralized ecosystems, static governance structures are insufficient due to the dynamic and evolving nature of participant interactions. Feedback loops—where performance data informs continuous governance

adjustments—enable firms to adapt their coordination mechanisms in response to changing conditions. These loops allow focal firms to identify inefficiencies, detect emerging opportunities, and recalibrate rules, standards, and incentives accordingly. Over time, this adaptive process generates path dependence: early governance choices influence subsequent ecosystem evolution, reinforcing the firm's orchestration capabilities and competitive position. The absence of asset ownership makes such feedback-driven adaptation even more critical, as firms cannot rely on hierarchical control to enforce alignment. Instead, they must continuously refine their coordination strategies to maintain coherence and performance. This proposition underscores the importance of dynamic capabilities in sustaining advantage in decentralized contexts.

Proposition 5

Data-exchange protocols function as invisible control levers, allowing focal firms to manage complementor dependence while preserving ecosystem openness [14, 23, 27].

Data-exchange protocols—rules governing how data is generated, shared, and utilized within the ecosystem—represent a subtle yet powerful form of control. Unlike traditional ownership-based mechanisms, these protocols operate invisibly, shaping interactions without imposing explicit constraints. By controlling access to data flows and defining how information is exchanged, focal firms can influence complementor behavior, guide innovation trajectories, and optimize resource allocation. At the same time, these protocols preserve ecosystem openness by enabling participation from a wide range of actors. This dual function—control without restriction—allows firms to balance influence with inclusivity. The proposition suggests that mastery of data governance is a critical component of orchestration capability, enabling firms to manage their dependence on complementors while maintaining the ecosystem's generativity and scalability.

Proposition 6

In highly decentralized systems, the interaction between architectural and relational orchestration mechanisms mitigates the risk of ecosystem fragmentation, transforming dependence into a source of strategic resilience [21, 24, 25].

Decentralized ecosystems are inherently prone to fragmentation due to the absence of centralized authority and the diversity of participant interests. Architectural mechanisms (e.g., platform design, standards, interfaces) provide structural coherence, while relational mechanisms (e.g., trust, incentives, norms) foster alignment and cooperation. The interaction between these two forms of orchestration is critical for maintaining ecosystem stability. Architectural mechanisms alone may be insufficient if participants lack motivation to adhere to standards, while relational mechanisms without structural support may lead to inefficiencies and inconsistencies. Together, they create a complementary system that mitigates fragmentation risks and enhances resilience. This proposition reframes dependence on external actors as a strategic asset: when effectively managed, it enables adaptability, diversity, and robustness, allowing the ecosystem to withstand shocks and sustain performance over time.

Figure 1 illustrates the coordination-centric architecture through which focal firms exercise strategic influence across non-owned assets in decentralized digital ecosystems.

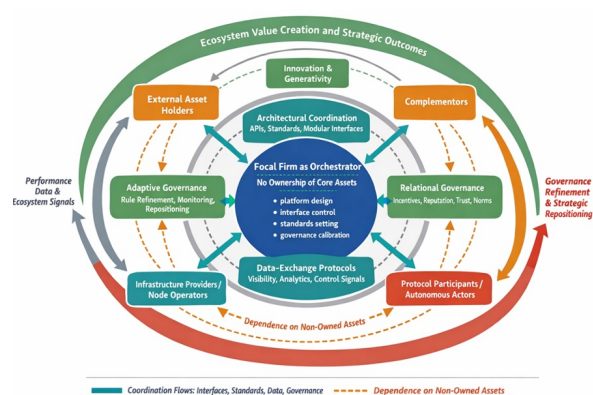


Figure 1. Strategic coordination architecture in decentralized digital ecosystems.

The figure conceptualizes the focal firm as an orchestration hub that achieves strategic control without owning core assets. Competitive advantage emerges through four interdependent coordination mechanisms—architectural coordination, relational governance, data-exchange protocols, and adaptive governance—that align external asset holders, complementors, infrastructure providers, and protocol participants. Dashed links indicate dependence on externally owned assets, while solid bidirectional flows represent active coordination through interfaces, standards, governance rules, and data signals. Outer ecosystem

outcomes feed back into governance refinement and strategic repositioning, illustrating how non-ownership advantage becomes path dependent through recursive adaptation.

Orchestration Boundaries and the Reconfiguration of the Firm

A central implication of the proposed theory is the reconceptualization of firm boundaries. Traditional perspectives define firm scope through ownership and hierarchical control over resources. In decentralized digital ecosystems, however, boundaries become fluid and permeable, shaped by coordination reach rather than asset possession [1, 9, 21]. The focal firm extends its influence across legally independent actors through interfaces, standards, and governance mechanisms that substitute for direct control.

This shift transforms the firm into a coordination nexus embedded within a broader ecosystem. Instead of internalizing activities, the firm selectively externalizes asset ownership while retaining strategic control over interactions and value flows. This boundary reconfiguration is consistent with meta-organizational perspectives, where authority is distributed but coordinated through shared rules and architectures [21, 22]. As a result, competitive advantage depends on how effectively firms design and maintain these coordination architectures rather than on the assets they own.

Importantly, boundary permeability introduces both opportunities and vulnerabilities. On one hand, firms benefit from scalability, flexibility, and access to diverse complementary resources [18, 24]. On the other hand, reduced ownership increases exposure to opportunism, coordination breakdowns, and loss of strategic control [6, 17, 26]. Effective orchestration, therefore, requires continuous boundary management that balances openness with selective restriction.

Dynamic Governance and Adaptive Coordination

Governance in decentralized ecosystems is not static but evolves dynamically in response to ecosystem performance and participant behavior. The feedback loops play a critical role in this process, enabling focal firms to refine rules, standards, and incentives over time [5, 6, 17]. This adaptive

governance capability constitutes a key dimension of orchestration-based advantage.

Unlike traditional hierarchical governance, which relies on authority and monitoring, decentralized governance operates through distributed mechanisms such as algorithmic enforcement, smart contracts, and reputation systems [3, 25, 26]. These tools enable coordination at scale while preserving participant autonomy. However, they also require continuous calibration to maintain alignment and prevent unintended consequences such as exclusion, bias, or strategic manipulation.

Dynamic governance is particularly important in managing generativity—the capacity of ecosystems to produce unanticipated innovations through participant contributions [20]. While generativity enhances value creation, it also increases complexity and coordination challenges. Firms must therefore design governance systems that enable innovation while maintaining coherence and strategic direction [18, 24].

Over time, governance refinement becomes path-dependent. Early design choices influence ecosystem structure, participant expectations, and future coordination possibilities [5, 17]. This creates increasing returns to effective orchestration, reinforcing the competitive position of firms that successfully manage decentralized coordination.

Managing Dependence Without Ownership

A defining feature of asset-light digital ecosystems is the focal firm's dependence on external asset holders and complementors. This dependence is not merely a constraint but a structural condition that can be strategically managed to create advantage [7, 15, 18]. The theory developed in this article highlights several mechanisms through which firms transform dependence into a source of strength.

First, firms leverage standardization to reduce uncertainty and facilitate coordination across heterogeneous participants [1, 9, 10]. By establishing common interfaces and protocols, they create predictable interaction patterns that enable scalable collaboration. Second, relational governance mechanisms—such as incentives, reputation systems, and community norms—align participant behavior

without requiring ownership [3, 18, 26]. These mechanisms foster trust and reduce the likelihood of opportunistic actions.

Third, data plays a central role in managing dependence. Through continuous data collection and analysis, firms gain visibility into ecosystem dynamics, enabling proactive coordination and rapid response to emerging issues [14, 27]. Data-driven insights also allow firms to identify high-value participants, optimize resource allocation, and enhance overall ecosystem performance.

Table 2 consolidates the manuscript’s core claim that orchestration mechanisms are simultaneously value-creating devices and resilience-producing safeguards in decentralized asset-light ecosystems.

Table 2. Orchestration mechanisms, strategic risks, and resilience effects in asset-light ecosystems

Orchestration mechanism	Primary coordination function	Strategic risk addressed	Typical failure is when
Platform architecture	Structures interaction pathways among distributed actors	system incoherence and operational disorder	fragmentation and incomplete work
Standardized interfaces	Enables interoperability across heterogeneous participants	coordination ambiguity and transaction friction	bottlenecks, poor integration, high switch costs, friction
Data-exchange protocols	Governs visibility, access, and informational asymmetry	blind dependence and value leakage	loss of control, observation, weak sensing capacity, opportunistic behavior
Relational governance	Aligns autonomous actors through incentives, trust, and reputation	opportunism, defection, and low commitment	contract exit, quality issues, participant unreliability, unsustained collaboration

Adaptive governance refinement	Uses performance feedback to recalibrate rules and incentives	governance rigidity under changing ecosystem conditions	outdated rules, irrelevant strategies
Complementor dependence management	Balances openness with selective intervention	overdependence on powerful participants or concentrated bottlenecks	value erosion, ecosystem imbalance
Reputation and transparency systems	Reduces uncertainty in decentralized exchange	trust erosion and hidden opportunism	adverse selection, unreciprocated exchange
Performance metrics and ecosystem sensing	Detects emerging tensions, bottlenecks, and participation shifts	delayed response to ecosystem instability	governance lag, inability to preempt fragmentation
Strategic repositioning capability	Redefines the focal firm's coordination role as ecosystem conditions evolve	lock-in to obsolete orchestration logic	centralized and devalued value

However, dependence management is inherently delicate. Excessive control can alienate participants and reduce ecosystem participation, while insufficient control can lead to fragmentation and value leakage [18, 20, 22]. Firms must therefore adopt a nuanced approach that balances influence with autonomy, ensuring that participants remain engaged while aligning with strategic objectives.

Risks, Fragility, and Systemic Vulnerabilities

While asset-light strategies offer significant advantages, they also introduce new risks. Decentralized ecosystems are inherently complex and interdependent, making them susceptible to coordination failures and systemic

disruptions [6, 17, 25]. The absence of ownership reduces the focal firm's ability to enforce compliance, thereby increasing reliance on less predictable indirect control mechanisms.

One key risk is participant defection. External asset holders and complementors can exit the ecosystem or shift to competing platforms, undermining value creation and network effects [7, 21, 24]. This risk is amplified in decentralized environments where switching costs are low and governance is distributed. Another risk is fragmentation, where divergent interests and a lack of coordination lead to ecosystem instability or platform forking [6, 17, 25].

Additionally, reliance on data-driven coordination introduces vulnerabilities related to data quality, privacy, and algorithmic bias [14, 27]. Failures in these areas can erode trust and compromise ecosystem performance. Governance mechanisms must therefore incorporate safeguards to address these risks while maintaining efficiency and scalability.

Despite these challenges, the theory suggests that firms can mitigate vulnerabilities through robust orchestration capabilities. By combining architectural control with relational governance and adaptive feedback mechanisms, they can enhance resilience and sustain competitive advantage in decentralized settings [21, 24, 25].

Strategic Implications for Digital Firms

The transition from ownership-based to orchestration-based advantage has profound implications for managerial practice. First, firms must prioritize developing orchestration capabilities, including platform design, interface management, and governance expertise [1, 9, 10]. These capabilities become the primary drivers of competitive advantage in asset-light environments.

Second, strategic focus shifts from asset accumulation to ecosystem positioning. Firms must identify and occupy central coordination roles within ecosystems, leveraging their ability to align participants and facilitate value creation [18, 21, 24]. This requires a deep understanding of ecosystem dynamics and the interdependencies among participants.

Third, managers must adopt a dynamic approach to governance, continuously refining rules and incentives in response to changing conditions [5, 6, 17]. Static governance models are insufficient in decentralized contexts, where adaptability is essential for maintaining alignment and performance.

Fourth, firms should embrace dependence as a strategic resource rather than a liability. By effectively managing relationships with external asset holders and complementors, they can access diverse capabilities and enhance innovation [7, 15, 18]. This requires building trust, fostering collaboration, and maintaining transparent governance practices.

Finally, risk management becomes a central strategic concern. Firms must anticipate and mitigate vulnerabilities associated with decentralization, including coordination failures, participant defection, and data-related risks [6, 17, 25]. This involves investing in robust governance systems and developing contingency plans to address potential disruptions.

Contributions to Theory and Future Research Directions

This article makes several contributions to the literature on digital business and management. First, it advances a novel theoretical framework that explains how firms achieve competitive advantage without owning core assets. By integrating insights from asset-light business models, platform governance, and decentralized ecosystems, it provides a unified explanation of orchestration-based advantage [1, 9, 21].

Second, the study reconceptualizes firm boundaries as coordination hubs rather than ownership enclosures. This perspective extends existing theories of the firm and highlights the importance of relational and architectural control in digital ecosystems [21, 22]. It also contributes to the growing literature on meta-organizations and distributed governance.

Third, the proposed framework identifies key mechanisms—platforms, interfaces, standards, and governance protocols—that enable strategic coordination in decentralized settings. These mechanisms provide a foundation for future empirical research examining how

firms implement and refine orchestration capabilities [2, 10, 22].

Future research can build on this work in several ways. Empirical studies could test the proposed propositions and examine the performance implications of orchestration-based strategies across different industries and contexts. Comparative analyses could explore variations in governance mechanisms and their effectiveness in different types of ecosystems, including fully decentralized versus hybrid models [3, 5, 25].

Additionally, research could investigate the micro-foundations of orchestration capabilities, focusing on managerial decision-making, organizational structures, and technological enablers. Understanding how firms develop and sustain these capabilities is critical for advancing theory and practice.

Finally, scholars could explore the broader societal implications of asset-light strategies, including their impact on employment, regulation, and economic inequality. As decentralized ecosystems continue to evolve, their influence on economic and social systems will become increasingly significant.

Conclusion

The rise of decentralized digital ecosystems marks a fundamental shift for the firm. Ownership of core assets is no longer the primary source of competitive advantage. Instead, firms achieve strategic success by orchestrating value creation across distributed networks of external participants.

This article has developed a coordination-centric theory that explains how firms operate effectively without owning the assets on which their business models depend. By emphasizing orchestration capabilities, dynamic governance, and dependence management, the framework provides a comprehensive understanding of non-ownership strategy in digital contexts.

The findings suggest that the firm's future lies not in controlling resources but in coordinating relationships. Firms that master this capability will be well-positioned to thrive in increasingly decentralized and interconnected environments. As digital ecosystems continue to expand, the ability to orchestrate without ownership will become a defining characteristic of successful organizations.

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