



THE LEGITIMACY PARADOX IN DECENTRALIZED FINANCE: AN INSTITUTIONAL THEORY FRAMEWORK FOR UNDERSTANDING DEFI'S PATH TO MAINSTREAM ADOPTION

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ABSTRACT

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Decentralized Finance (DeFi) presents a fundamental paradox for institutional theory: protocols designed to eliminate traditional intermediaries must increasingly adopt institutionalized practices to gain the legitimacy required for mainstream adoption. Drawing on Suchman's (1995) legitimacy typology, DiMaggio and Powell's (1983) institutional isomorphism framework, and Khanna and Palepu's (2010) institutional voids theory, this conceptual paper develops a multi-level framework—the Legitimacy Paradox Framework (LPF)—to explain how DeFi protocols navigate the tension between decentralized identity and institutional conformity. We advance nine research propositions organized across three theoretical dimensions: (1) the paradoxical relationship between decentralization ideology and legitimacy acquisition; (2) the isomorphic pressures—coercive, mimetic, and normative—driving convergence with traditional finance; and (3) the institutional void-filling mechanisms that DeFi creates and simultaneously struggles to legitimate. The paper introduces the concept of legitimacy bricolage—the creative recombination of institutional and technological legitimacy elements—as a resolution pathway. With DeFi's total value locked surpassing \$160 billion and institutional adoption accelerating, this framework provides a timely theoretical lens for understanding how nascent financial ecosystems construct legitimacy while preserving their foundational identity. Implications for organizational theory, financial regulation, and DeFi practitioners are discussed.

KEYWORDS: *Decentralized Finance, Institutional Legitimacy, Institutional Isomorphism, Defi Governance, Legitimacy Paradox, Institutional Voids, Blockchain Finance*

1. INTRODUCTION

Decentralized Finance (DeFi) has emerged as one of the most disruptive innovations in global financial services, promising to reconstruct the architecture of financial intermediation through blockchain-based protocols that operate without centralized authorities (Gomber et al., 2018; Schar, 2021). By mid-2025, the total value locked (TVL) in DeFi protocols surpassed \$160 billion, representing a 137% year-over-year increase, while more than 41 million unique wallets interacted with DeFi applications by Q4 2024 (DappRadar, 2025). These figures underscore a trajectory of accelerating adoption that has attracted not only retail participants but increasingly institutional investors seeking yield opportunities, portfolio diversification, and exposure to programmable financial infrastructure.

Yet beneath this growth narrative lies a profound theoretical tension. DeFi's foundational ideology is built on the elimination of trusted intermediaries—banks, clearinghouses, custodians—through self-executing smart contracts and distributed governance mechanisms (Zetzsche et al., 2020). The very *raison d'être* of DeFi is to create a financial system that does not require the institutional trust structures that traditional finance depends upon. However, as DeFi protocols seek to attract institutional capital, comply with emerging regulatory frameworks, and achieve mainstream adoption, they confront an uncomfortable reality: legitimacy in the broader financial ecosystem demands precisely the kinds of institutional structures that DeFi was designed to circumvent.

This tension manifests empirically in several observable phenomena. Despite the promise of decentralized governance through tokens, research demonstrates that voting power in

major DeFi protocols is highly concentrated, with as few as three to five voters sufficient to determine the outcome of most governance proposals (Cong et al., 2025). The smart contract audit market has grown to \$2.69 billion in 2025, effectively creating a new class of institutional gatekeepers in a putatively gateless system (CoinLaw, 2025). Furthermore, DeFi protocols lost approximately \$2.2 billion to security exploits in 2024 alone, prompting calls for the very regulatory oversight that the ecosystem philosophically opposes (Halborn, 2025).

Despite the growing significance of DeFi and its institutional implications, the existing literature has largely treated DeFi through technological or financial lenses, focusing on protocol design, yield optimization, and risk assessment (Aramonte et al., 2021; Harvey et al., 2021). Institutional theory perspectives remain notably underrepresented in the DeFi discourse, creating a significant gap in our understanding of how these novel organizational forms construct, maintain, and sometimes lose legitimacy. While recent work by Sauce (2025) has introduced the concept of "technology legitimacy" in DeFi and Barbereau et al. (2023) have documented the timocratic nature of DeFi governance, no comprehensive framework exists for theorizing the paradoxical relationship between DeFi's decentralized identity and its need for institutional legitimacy.

This paper addresses this gap by developing the Legitimacy Paradox Framework (LPF), which integrates three foundational theoretical perspectives—Suchman's (1995) legitimacy typology, DiMaggio and Powell's (1983) institutional isomorphism, and Khanna and Palepu's (2010) institutional voids theory—to explain how DeFi protocols navigate the fundamental tension between ideological purity and institutional conformity. We advance nine theoretically grounded propositions that chart how DeFi's legitimacy paradox operates across pragmatic, moral, and cognitive dimensions; how isomorphic pressures drive convergence with traditional financial practices; and how DeFi protocols fill institutional voids while simultaneously creating new ones.

The paper makes three primary contributions. First, it introduces the concept of the legitimacy paradox as a distinct theoretical construct applicable to technologically disruptive financial ecosystems that are ideologically opposed to the institutional structures they must ultimately engage. Second, it offers the notion of legitimacy bricolage—the creative recombination of technological and institutional legitimacy elements—as a resolution mechanism that extends existing theorizing on organizational legitimacy. Third, it provides a processual model of institutional evolution in DeFi, identifying four phases from ideological genesis through institutional integration, each characterized by distinct legitimacy strategies and governance configurations.

2. THEORETICAL BACKGROUND

2.1 Institutional Legitimacy: Suchman's Typology

Suchman (1995, p. 574) defined organizational legitimacy as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions." This seminal formulation identified three fundamental dimensions of legitimacy—pragmatic, moral, and cognitive—each operating through distinct evaluative logics.

Pragmatic legitimacy rests on the self-interested calculations of an organization's most immediate audiences. Stakeholders confer legitimacy based on the tangible benefits they derive from the organization's activities. In financial services, pragmatic legitimacy has traditionally been anchored in demonstrated capacity to safeguard assets, generate returns, and provide reliable transactional infrastructure (Scott, 2014). Moral legitimacy reflects a positive normative evaluation of the organization and its activities. It is not based on whether the organization benefits specific stakeholders, but whether it does "the right thing"—conforming to socially accepted norms regarding proper organizational behavior, procedures, and structures. Cognitive legitimacy, the most powerful and elusive form, exists when an organizational form becomes so taken-for-granted that alternatives are almost inconceivable. Traditional banks, for instance, enjoy deep cognitive legitimacy: their existence and function are comprehended and accepted without question by most economic actors.

The application of Suchman's framework to DeFi reveals a distinctive pattern. DeFi protocols have achieved significant pragmatic legitimacy among crypto-native users through competitive yields, composability, and permissionless access—features that deliver tangible utility. However, moral legitimacy remains contested due to the prevalence of exploits, scams, and governance manipulation that violate broader societal expectations of financial conduct. Cognitive legitimacy is virtually absent outside specialist communities: the operational logic of DeFi protocols remains opaque to most economic actors, including many institutional investors (Farhani, 2025).

2.2 Institutional Isomorphism: DiMaggio and Powell's Framework

DiMaggio and Powell (1983) demonstrated that organizations in the same field tend to become increasingly similar over time through three isomorphic mechanisms. Coercive isomorphism arises from formal and informal pressures exerted by organizations upon which they are dependent and by cultural expectations of the society within which they function. Mimetic isomorphism occurs when organizations model themselves after more established or successful entities, particularly during periods of uncertainty. Normative isomorphism stems from the professionalization of organizational fields, as occupational communities define appropriate organizational practices and structures.

The DeFi ecosystem exhibits all three isomorphic pressures with particular intensity. Coercive pressures have escalated sharply with the European Union's Markets in Crypto-Assets Regulation (MiCA), the U.S. SEC's evolving enforcement actions, and Asia-Pacific regulatory frameworks that increasingly mandate compliance infrastructure for decentralized protocols (KPMG, 2025). Mimetic pressures are evident in DeFi protocols' adoption of traditional risk management frameworks, credit assessment methodologies, and institutional-grade custody solutions—practices imported directly from the banking sector they ostensibly seek to displace. Normative pressures manifest through the professionalization of smart contract auditing, the emergence of DeFi-specific certifications, and the formation of industry associations that codify best practices (Sauce, 2025).

2.3 Institutional Voids: Khanna and Palepu's Theory

Khanna and Palepu (2010) introduced the concept of institutional voids to describe the absence or inefficiency of market-supporting institutions—specialized intermediaries, regulatory systems, and contract-enforcing mechanisms—that are necessary to consummate transactions efficiently. Originally developed in the context of emerging market economies, the institutional voids framework illuminates how economic actors adapt when the institutional infrastructure assumed by standard economic theory is missing or underdeveloped.

DeFi's relationship with institutional voids is uniquely paradoxical. On one hand, DeFi protocols emerged partly as void-filling mechanisms—smart contracts substitute for the intermediary functions of banks and clearinghouses, automated market makers replace traditional order books, and on-chain governance approximates the regulatory oversight provided by financial authorities (Zetzsche et al., 2020). On the other hand, DeFi simultaneously creates new institutional voids: the absence of consumer recourse mechanisms, the lack of standardized disclosure requirements, and the deficit of cross-protocol interoperability standards represent institutional gaps that traditional finance had long since filled (Financial Stability Board, 2019).

3. The Legitimacy Paradox Framework

Building on the three theoretical pillars outlined above, we propose the Legitimacy Paradox Framework (LPF) as an integrative model for understanding how DeFi protocols navigate the fundamental tension between their decentralized identity and the institutional conformity required for mainstream adoption. The framework's core argument is that DeFi confronts a structural paradox: the very institutional practices that confer legitimacy on financial organizations—regulatory compliance, hierarchical governance, intermediated trust—are antithetical to the decentralized, trustless, and disintermediated principles upon which DeFi is built.

Figure 1 presents the conceptual model. The framework identifies three interacting dimensions—*isomorphic pressures*, *legitimacy requirements*, and *institutional void navigation*—that collectively shape how DeFi protocols experience and attempt to resolve the legitimacy paradox. The model positions DeFi protocols at the nexus of contradictory forces: ideological commitments to decentralization on one side and institutional demands for legitimacy on the other, mediated by the mechanisms through which protocols fill and create institutional voids.

Figure 1. The Legitimacy Paradox in Decentralized Finance: Conceptual Model

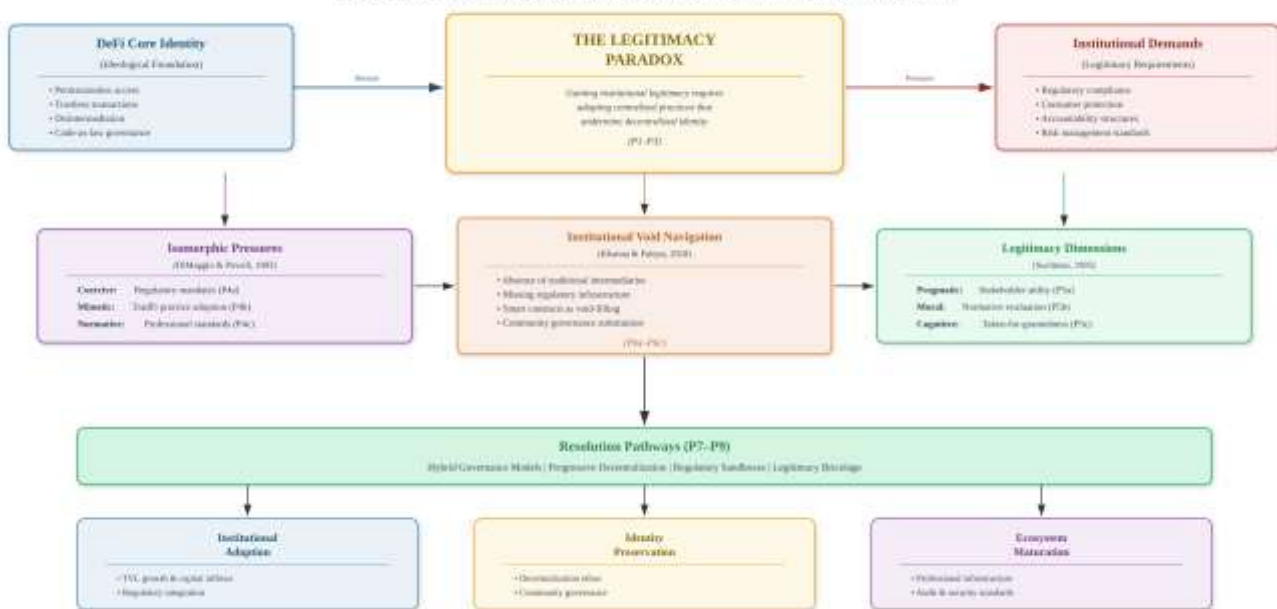


Figure 1. The Legitimacy Paradox in Decentralized Finance: Conceptual Model

3.1 The Paradox Propositions (P1–P3)

The foundational propositions of the LPF address the paradoxical nature of DeFi's legitimacy challenge. Unlike traditional financial innovations that seek legitimacy by demonstrating compliance with existing institutional norms, DeFi protocols are philosophically committed to rejecting those very norms. This creates a double bind: pursuing institutional legitimacy risks alienating the crypto-native community that provides DeFi's initial user base, while refusing institutional legitimacy forecloses access to the mainstream capital and user base required for long-term viability.

Proposition 1 (The Core Paradox): DeFi protocols that pursue institutional legitimacy through traditional compliance and governance mechanisms will experience a proportional erosion of their decentralized identity, creating a legitimacy deficit among their foundational stakeholder community.

The empirical evidence for P1 is emerging. Cong et al. (2025) documented that DAO governance is already functionally centralized, with blockvoters controlling 76.2% of voting power in protocol decisions. This centralization was not mandated by regulators but emerged organically as protocols

sought to professionalize their governance—a legitimacy-seeking behavior that simultaneously undermines the decentralization promise. Similarly, the Georgetown Center for Financial Policy (2025) found that institutional DeFi integration inevitably requires risk management infrastructure that concentrates decision-making authority.

Proposition 2 (The Legitimacy Asymmetry): *DeFi protocols can more readily achieve pragmatic legitimacy (through demonstrated utility) than moral legitimacy (through normative alignment) or cognitive legitimacy (through taken-for-grantedness), creating a legitimacy profile that is structurally unbalanced.*

DeFi's pragmatic legitimacy is well established: protocols deliver measurable utility through competitive yields, 24/7 settlement, composability, and permissionless access. However, the sector's moral legitimacy remains fundamentally compromised. Hackers stole over \$2.2 billion from decentralized platforms in 2024, marking a 20% surge from the previous year (Halborn, 2025). These security failures violate basic expectations about fiduciary responsibility and consumer protection that anchor moral legitimacy in financial services. Cognitive legitimacy—the deepest form—remains far from reach, as DeFi's operational logic remains incomprehensible to most economic actors outside the crypto community.

Proposition 3 (The Decentralization Illusion): *As DeFi protocols mature and seek broader legitimacy, they will converge toward operational structures and governance configurations that are functionally equivalent to traditional financial institutions, rendering their decentralization claims increasingly ceremonial rather than substantive.*

KPMG's (2025) analysis of the "decentralization illusion" provides supporting evidence: most DeFi protocols maintain identifiable founding teams, concentrated token holdings, and centralized upgrade mechanisms that make their operational structure far more similar to traditional fintech firms than their decentralized branding suggests. Barbereau et al. (2023) similarly documented that DeFi governance is timocratic in practice—a system where power is allocated based on wealth holdings rather than distributed equally—contradicting the democratic ideals implicit in the language of decentralization.

3.2 The Isomorphic Pressure Propositions (P4a–P4c)

The second dimension of the LPF examines how the three forms of institutional isomorphism identified by DiMaggio and Powell (1983) operate specifically within the DeFi ecosystem, each driving convergence with traditional financial practices in distinct ways. Figure 2 illustrates these pressures and their directional impact on DeFi protocols.

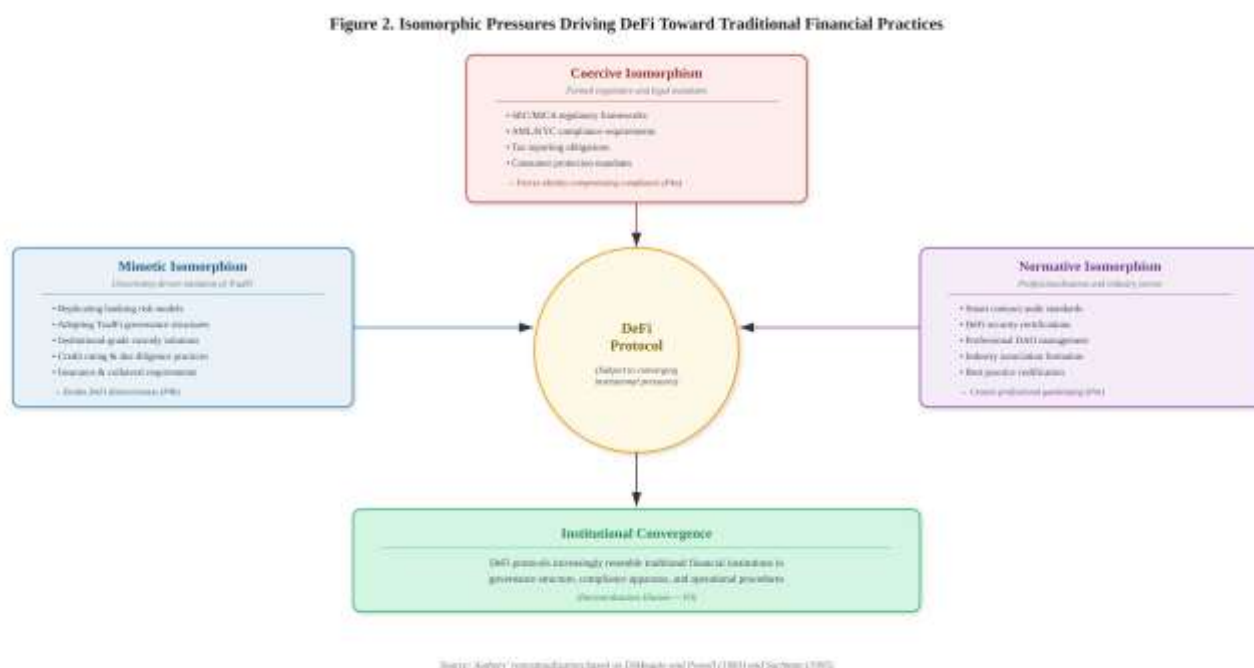


Figure 2. Isomorphic Pressures Driving DeFi Toward Traditional Financial Practices

Proposition 4a (Coercive Convergence): *Emerging regulatory frameworks (MiCA, SEC enforcement, AML/KYC mandates) will compel DeFi protocols to adopt compliance infrastructure that functionally re-introduces the intermediary structures that DeFi was designed to eliminate, accelerating the legitimacy paradox.*

The coercive dimension is perhaps the most immediately visible. The EU's MiCA regulation, fully effective from December 2024, requires crypto-asset service providers to obtain authorization, maintain governance arrangements, and comply with anti-money laundering obligations. In the United States, the SEC's enforcement-driven approach has targeted multiple DeFi protocols. These regulatory actions create powerful coercive pressures that force protocols to either

comply—thereby compromising decentralization—or resist, thereby forfeiting access to regulated markets.

Proposition 4b (Mimetic Homogenization): Under conditions of technological and regulatory uncertainty, DeFi protocols will increasingly model their organizational practices, risk management frameworks, and governance structures after established traditional financial institutions, reducing the distinctiveness of the DeFi value proposition.

Mimetic isomorphism is evident in DeFi's adoption of traditional finance practices. Protocols like Aave and Maple Finance have developed institutional-grade lending environments with risk-segmented pools that closely mirror traditional credit structures. Institutional custody solutions such as Fireblocks replicate the custodial function of traditional financial intermediaries. This mimetic behavior is rational at the protocol level—imitating successful models reduces uncertainty—but collectively erodes DeFi's differentiation from the system it claims to transform.

Proposition 4c (Normative Gatekeeping): The professionalization of DeFi-adjacent services (smart contract auditing, security certification, DAO management) will create normative pressures that establish new gatekeeping functions, replicating the professional entry barriers that characterize traditional financial institutions.

The smart contract audit industry illustrates normative isomorphism clearly. The market for smart contract audits reached \$2.69 billion in 2025, up from \$2.14 billion in 2024 (CoinLaw, 2025). Leading audit firms—Halborn, OpenZeppelin, Trail of Bits—have become de facto legitimacy certifiers, performing a gatekeeping function analogous to the rating agencies and external auditors that traditional finance relies upon. Ironically, research shows that most exploits in 2024 and 2025 originated from contracts that had already been audited, suggesting that the audit function serves as much a legitimacy-signaling role as a genuine security assurance function.

3.3 The Institutional Void Propositions (P5a–P5c)

The third dimension of the LPF examines DeFi's dual relationship with institutional voids—simultaneously filling traditional financial voids and creating new ones that demand novel institutional responses.

Proposition 5a (Void Filling as Legitimacy Source): DeFi protocols that effectively fill institutional voids in underserved financial markets—providing credit, insurance, and exchange services where traditional institutions are absent—will achieve greater pragmatic legitimacy than protocols

targeting markets already well served by traditional institutions.

DeFi's strongest legitimacy claims arise in contexts where traditional institutions have failed to serve populations effectively. In regions with limited banking infrastructure, DeFi provides access to lending, saving, and exchange services that traditional institutions either cannot or choose not to offer. This void-filling function confers pragmatic legitimacy based on demonstrated utility to underserved stakeholders.

Proposition 5b (Void Creation as Legitimacy Threat): DeFi protocols simultaneously create new institutional voids—in consumer protection, dispute resolution, and systemic risk management—that threaten their moral legitimacy and invite coercive regulatory intervention.

While DeFi fills certain voids, it creates others that traditional finance had addressed. Consumer protection mechanisms, deposit insurance, dispute resolution procedures, and systemic risk monitoring are institutional functions that have evolved over centuries in traditional finance. Their absence in DeFi represents institutional voids that undermine moral legitimacy and provide justification for regulatory intervention. The \$2.2 billion in DeFi exploits in 2024 is directly attributable to the absence of institutional safeguards that traditional finance takes for granted.

Proposition 5c (Void Substitution): DeFi protocols develop novel institutional substitutes—smart contract audits, on-chain proof-of-reserves, community governance, and insurance protocols—that partially fill the voids they create, but these substitutes remain inferior to their traditional counterparts in terms of cognitive legitimacy.

Smart contract audits serve as a substitute for traditional financial auditing; decentralized insurance protocols (such as Nexus Mutual) approximate deposit protection; and on-chain governance substitutes for regulatory oversight. However, these institutional substitutes lack the taken-for-grantedness that characterizes their traditional equivalents. A Big Four audit opinion carries cognitive legitimacy that no smart contract audit firm has yet achieved, regardless of technical superiority, because cognitive legitimacy is a product of historical institutionalization rather than functional effectiveness.

4. THE DEFI INSTITUTIONAL EVOLUTION MODEL

Building on the propositions advanced above, we present a processual model of institutional evolution in DeFi that charts four distinct phases through which protocols navigate the legitimacy paradox. Figure 3 illustrates this evolutionary trajectory.

Figure 3. DeFi Institutional Evolution: From Ideological Purity to Legitimacy Bricolage



Figure 3. DeFi Institutional Evolution: From Ideological Purity to Legitimacy Bricolage

Phase 1: Genesis (Ideological Purity)

In the genesis phase, DeFi protocols are characterized by strong ideological commitment to decentralization, minimal governance structures, and reliance on code-as-law as the primary trust mechanism. Legitimacy is derived almost exclusively from technological functionality—the protocol works as specified. Governance is purely token-based, with founding teams maintaining significant but informal influence. The institutional posture is explicitly anti-institutional: protocols position themselves as alternatives to, rather than participants in, the traditional financial system.

Phase 2: Confrontation (Identity Crisis)

The confrontation phase begins when protocols encounter the institutional environment in ways that challenge their founding ideology. This typically occurs through security incidents that expose governance weaknesses, regulatory actions that demand compliance responses, or growth pressures that require professionalization. The identity crisis deepens as protocols recognize that their token-based governance is functionally centralized (Cong et al., 2025), their security depends on institutional auditors, and their growth requires institutional capital that demands familiar compliance infrastructure. Foundations and core development teams increasingly make consequential decisions, often with minimal community input, creating a gap between decentralized rhetoric and centralized practice.

Phase 3: Negotiation (Selective Adaptation)

In the negotiation phase, protocols engage in selective adaptation—strategically adopting institutional elements while attempting to maintain their decentralized identity. This phase is characterized by participation in regulatory sandboxes, implementation of tiered compliance frameworks (where institutional participants face KYC requirements while retail access remains permissionless), and the development of hybrid governance models that combine on-chain voting with off-chain deliberation processes. Insurance and audit mechanisms are formalized, and professional managers emerge to coordinate DAO operations.

Phase 4: Integration (Legitimacy Bricolage)

The integration phase represents the resolution—or at least the management—of the legitimacy paradox through what we term

legitimacy bricolage. Drawing on the concept of institutional bricolage (Cleaver, 2012), we argue that mature DeFi protocols construct legitimacy through creative recombination of institutional and technological elements rather than wholesale adoption of either paradigm. Progressive decentralization becomes the governance norm: protocols begin with centralized incubation, gradually distributing control as they mature (as advocated by a16z's framework). Legitimacy becomes multi-dimensional, drawing simultaneously on technological trust (smart contract verification), institutional trust (regulatory compliance, audits), and community trust (participatory governance).

4.1 Resolution Propositions (P7–P9)

Proposition 7 (Legitimacy Bricolage): DeFi protocols that construct legitimacy through bricolage—creative recombination of technological mechanisms (smart contracts, on-chain verification) and institutional mechanisms (audits, compliance, governance structures)—will navigate the legitimacy paradox more successfully than protocols that rely exclusively on either technological or institutional legitimacy alone.

Proposition 8 (Progressive Decentralization): DeFi protocols that adopt progressive decentralization strategies—accepting temporary centralization during incubation and systematically distributing governance authority as the protocol matures—will achieve higher overall legitimacy than protocols that maintain either rigid decentralization or permanent centralization.

Proposition 9 (Regulatory Co-construction): DeFi protocols that engage proactively with regulators to co-construct regulatory frameworks adapted to decentralized architectures will achieve greater moral and cognitive legitimacy than protocols that either resist regulation entirely or adopt traditional regulatory frameworks without modification.

5. DISCUSSION

5.1 Theoretical Implications

The Legitimacy Paradox Framework makes several contributions to institutional theory and organizational studies. First, it identifies a distinct class of legitimacy challenge—the

identity-threatening paradox—that arises when organizations defined by their opposition to existing institutions must engage those same institutions to survive and grow. This differs from the legitimacy challenges faced by conventional organizations (which seek to conform to institutional expectations) and from those facing social enterprises (which balance commercial and social logics). DeFi protocols face a deeper paradox: their foundational value proposition is built on the rejection of the institutional structures through which legitimacy is conventionally achieved.

Second, the concept of legitimacy bricolage extends existing theorizing on institutional entrepreneurship and institutional work (Lawrence & Suddaby, 2006). Rather than framing the legitimacy challenge as a binary choice between conformity and resistance, bricolage recognizes that organizations can construct novel legitimacy configurations by creatively combining elements from competing institutional logics. In the DeFi context, this involves weaving technological trust mechanisms (cryptographic verification, transparent smart contracts) with institutional trust mechanisms (audits, governance structures, regulatory compliance) into configurations that satisfy multiple stakeholder audiences simultaneously.

Third, the institutional evolution model contributes a processual perspective that has been largely absent from DeFi scholarship. Existing research tends to analyze DeFi governance and legitimacy in static terms; our four-phase model captures the dynamic trajectory through which protocols negotiate the paradox over time. The model's implications extend beyond DeFi to any technologically disruptive organizational form that is ideologically committed to disrupting existing institutional arrangements—a category that includes platform cooperatives, decentralized social media, and other Web3 initiatives.

5.2 Practical Implications

For DeFi founders and protocol designers, the framework suggests that legitimacy should be treated as a strategic priority from inception rather than an afterthought. The progressive decentralization pathway (P8) provides a practical template: protocols can launch with centralized governance while establishing clear, credible, and publicly auditable milestones for distributing authority. This approach acknowledges the functional necessity of centralized coordination during early development without permanently abandoning the decentralization commitment.

For regulators, the framework highlights the counterproductive consequences of imposing traditional regulatory frameworks on fundamentally different organizational architectures. Coercive isomorphism (P4a) that forces DeFi protocols into compliance structures designed for centralized institutions may achieve formal compliance at the cost of driving substantive activity into truly unregulable, anonymous protocols. The regulatory co-construction pathway (P9) offers an alternative: collaborative development of regulatory frameworks that leverage DeFi's unique capabilities (on-chain transparency, programmable compliance) rather than ignoring them.

For institutional investors, the legitimacy asymmetry (P2) provides a practical diagnostic. Evaluating DeFi protocols

purely on pragmatic legitimacy (yields, transaction costs, functionality) understates the risks associated with deficits in moral legitimacy (governance manipulation, security vulnerabilities) and cognitive legitimacy (unfamiliarity, conceptual opacity). A comprehensive due diligence framework should assess all three dimensions.

5.3 Limitations and Future Research

As a conceptual paper, this work has inherent limitations that simultaneously define future research opportunities. The propositions advanced herein require systematic empirical testing. Quantitative approaches could operationalize the legitimacy paradox by measuring decentralization indices (such as the Gini coefficient of token distributions and governance participation rates) alongside legitimacy indicators (institutional TVL, regulatory status, media sentiment). Qualitative research—case studies of specific protocols navigating the paradox, ethnographies of DAO governance processes, and discourse analyses of DeFi community debates about institutional engagement—would provide rich contextual understanding of the mechanisms theorized here.

The framework is currently DeFi-centric, but its applicability to other decentralized organizational forms merits exploration. Decentralized Autonomous Organizations (DAOs) beyond finance, decentralized science (DeSci), decentralized social media, and decentralized physical infrastructure networks (DePIN) all face analogous legitimacy paradoxes that the LPF may illuminate with appropriate adaptation.

Future research should also examine the role of national institutional contexts. The legitimacy paradox likely operates differently across regulatory regimes: protocols navigating the EU's comprehensive MiCA framework face different paradox dynamics than those operating in more permissive jurisdictions. Cross-national comparative research would enrich the framework considerably.

Finally, the temporal dynamics of legitimacy bricolage deserve sustained investigation. How stable are bricolage configurations? Do they represent durable equilibria or temporary accommodations that eventually resolve into either full institutionalization or marginalization? Longitudinal studies tracking specific protocols through the four-phase model would provide crucial evidence.

6. CONCLUSION

Decentralized Finance stands at a pivotal juncture. With total value locked exceeding \$160 billion, over 41 million unique wallets, and institutional TVL surging to \$42 billion, DeFi has moved decisively beyond its origins as a niche experiment for cryptocurrency enthusiasts. Yet the legitimacy paradox identified in this paper suggests that DeFi's path to mainstream adoption is not merely a technical or commercial challenge but a fundamentally institutional one. Protocols must construct legitimacy within an institutional environment whose norms and structures they were designed to reject.

The Legitimacy Paradox Framework developed herein provides a theoretically grounded lens for understanding this challenge. By integrating Suchman's legitimacy dimensions, DiMaggio and Powell's isomorphic pressures, and Khanna and Palepu's institutional voids theory, the framework captures the

multi-level dynamics through which DeFi protocols navigate between ideological purity and institutional conformity. The concept of legitimacy bricolage offers a path beyond the false binary of full institutionalization versus permanent marginality—suggesting that DeFi's most promising future lies in creative recombination of technological and institutional legitimacy elements into novel configurations that neither the cypherpunk founders nor the traditional regulators originally envisioned.

As the DeFi ecosystem continues to mature, the questions raised by this framework will only grow in significance. Whether DeFi can achieve the legitimacy required for mainstream adoption without sacrificing the decentralized principles that justify its existence is among the most consequential organizational questions of the current era. We hope this framework equips scholars and practitioners with the theoretical tools to address it.

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