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The Redistribution of Innovation Incentives When Mature Platforms Restrict Ecosystem Openness after Complementors Have Committed Substantial Relationship-Specific Investments

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Abstract

Mature digital platforms often tighten access, alter interfaces, internalize complementary functions, or revise governance after complementors have already committed substantial platform-specific resources. Existing platform research explains openness, competition, owner entry, and ecosystem governance, yet it is less explicit about why an identical governance restriction may have different innovation consequences depending on the sequence through which complementors arrived at their current dependence. This article develops a Path-Dependence / Trajectory Theory account of that problem. The analysis distinguishes initial openness conditions, accumulation of relationship-specific commitment, self-reinforcing reductions in redeployability, post-commitment restriction as a potential critical juncture, and subsequent redistribution of innovation incentives across focal-platform, cross-platform, adjacent, and withdrawal trajectories. The central theoretical claim is conditional: restriction becomes especially consequential when earlier openness induced investments that changed the complementor's later option set. However, lock-in is not inevitable. Multihoming, transferable capabilities, alternative platforms, governance credibility, and institutional conditions may preserve redirection capacity. The resulting account reframes platform restriction as a history-dependent allocation problem in which the location and direction of innovation may change even when complementors remain formally present in the ecosystem.

Keywords Platform ecosystems, Path dependence, Multihoming, Relationship-specific investment, Ecosystem openness, Complementor innovation

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Introduction

Platform ecosystems simultaneously expand opportunities for distributed innovation and create governance problems concerning coordination, competition, and the allocation of value among interdependent actors [1, 2]. Much of the platform literature accordingly examines openness, orchestration, vertical integration, network effects, complementor participation, and platform-owner competition. These perspectives establish that governance choices affect ecosystem

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performance, but they do not fully resolve a temporal question that becomes increasingly important as platforms mature: why should a restriction imposed today have different consequences depending on what complementors were previously encouraged to invest?

Path dependence offers a specific answer only when historical sequence changes the structure of later alternatives. Organizational path-dependence theory therefore requires more than persistence or chronology; self-reinforcing mechanisms must progressively change the relative attractiveness or feasibility of available options [3]. Applied to platform ecosystems, this implies that a mature platform's restriction of openness should not be evaluated only by the formal severity of the new rule. Its consequences may depend on whether prior openness induced complementors to develop platform-specific technical integrations, distribution routines, reputation, data dependencies, organizational processes, or business models whose value is difficult to reproduce elsewhere.

The theoretical problem addressed here is therefore not simply whether openness encourages innovation or whether platform control discourages it. The problem is whether early openness can alter the complementor's later option value so substantially that a subsequent governance restriction redistributes innovation incentives in ways that would not have occurred under an otherwise similar restriction imposed before those commitments accumulated. The article treats the timing of governance intervention as analytically consequential because the same complementor may face a materially different opportunity set at different points in its relationship with the platform.

This perspective also requires restraint. A complementor that remains on a platform after restrictive governance is not necessarily locked in, and a complementor that redirects innovation elsewhere has not necessarily escaped a path-dependent process. Current market power, switching costs, specialization, network effects, anticipated competition, and regulation may independently explain observed behavior. The distinctive claim developed here is narrower: when earlier commitments become self-reinforcing and alter redeployability, later governance changes can act as critical junctures whose innovation consequences depend on the trajectory through which the complementor reached its present position.

Platform Openness and Complementor Innovation

Platform openness is not adequately represented as a single continuum between "open" and "closed." Platform ecosystems may expose interfaces to external developers, distribute innovation responsibilities outside the focal firm, allow third-party commercialization, provide technical boundary resources, permit category entry, or grant varying degrees of access to users and complementary assets. External developers can therefore expand the range of innovation available to a platform beyond what vertically integrated production alone can provide [4]. Ecosystem theory similarly emphasizes that participants often depend on structured complementarities that are more specific than ordinary market exchange and may therefore constrain simple substitution among partners [5].

The innovation consequences of openness depend on which dimension is changed and at what stage of ecosystem development. Longitudinal evidence from platform markets shows that different openness strategies may support different forms of complementary innovation over the platform lifecycle [6, 7]. Boundary resources, exclusivity arrangements, third-party access, and the breadth of admissible complementary categories need not have equivalent effects. This distinction matters for the present argument because complementors can respond differently to an environment that merely permits entry than to one that actively enables technical integration, demand access, or commercialization.

Governance conditions also vary across ecosystem layers. Multi-tier ecosystems may allocate coordination responsibilities differently across central orchestrators, intermediary actors, and specialized complementors [8]. Likewise, platform organizations can combine architectural and governance arrangements in configurations that alter the manner and intensity of complementor engagement [9]. Even increasing complementary variety does not create a mechanically positive innovation environment: new complementors may generate demand spillovers, competitive pressure, or both, and these effects can vary across products and market positions [10].

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Openness should therefore be understood here as the initial structure of innovation opportunity rather than as an inherently beneficial governance state. Its theoretical importance lies in what it encourages complementors to build, learn, and specialize around. When the resulting activities remain readily portable, later restriction may produce ordinary switching or reallocation. When openness instead induces accumulated commitments whose returns depend increasingly on continued access to the focal ecosystem, the governance history begins to affect the complementor's future option set.

Relationship-Specific Investment

Relationship-specific investment becomes theoretically important when resources created for one exchange, platform, or ecosystem lose value when redeployed elsewhere. Evidence from interfirm relationships shows that supplier- and customer-specific investment can expose firms differently to hold-up and financing constraints because the returns from those investments depend partly on continuation of a particular relationship [11]. The direct empirical context of that evidence is not digital platforms, but the mechanism is relevant: specificity changes the consequences of later bargaining or governance changes because the investing party cannot costlessly reconstruct the same value outside the focal relationship.

In platform ecosystems, specificity can accumulate through more than dedicated physical assets. Technical adaptation to APIs, platform-specific development capability, reputation built inside a proprietary marketplace, customer acquisition tied to platform distribution, data generated under platform rules, and organizational routines oriented toward a particular architecture can all reduce the relative value of alternative trajectories. The present article treats these forms collectively as a **commitment stock** only when their accumulated value is meaningfully dependent on continued participation in the focal ecosystem. The term therefore does not denote sunk cost in general.

Self-reinforcement is the critical additional condition. Research on knowledge path dependence shows that continued reliance on established knowledge trajectories can inhibit radical invention, while external connections may reopen or broaden search possibilities [12]. Similarly, longitudinal research on firms moving from products toward platforms shows that early assumptions and interdependent strategic choices can produce different subsequent trajectories by changing what later choices remain viable [13]. These findings do not directly test complementor lock-in, but they demonstrate the theoretical operation required here: earlier choices become consequential because they progressively reshape later alternatives.

The relationship between accumulated commitment and later vulnerability can therefore vary substantially across complementors. Some investments deepen focal-platform productivity while remaining portable; others create benefits that decline sharply outside the original ecosystem. The analytical distinction is captured in **Table 1.**

Table 1. Relationship-specific commitment changes later option value through different forms of redeployability

Commitment form	Value created while openness persists	Source of increasing specificity	Consequence for later redeployment	Path-dependence function
Platform-specific technical integration	Deeper functionality, lower integration friction, access to platform capabilities	Code, interfaces, testing routines, certification, platform-specific know-how	Alternative platforms may require costly redesign or capability rebuilding	Narrows feasible technical alternatives
Platform-conditioned distribution capability	Access to users, discovery mechanisms, transaction infrastructure, marketplace visibility	Dependence on platform-specific acquisition and monetization routines	Existing demand-generation routines may transfer imperfectly	Raises the relative value of continued focal access

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Platform-embedded reputation and relational capital	Trust, rankings, visibility, installed relationships, ecosystem legitimacy	Accumulation occurs within the platform's institutional environment	Reputation may be partially nonportable across ecosystems	Increases the opportunity cost of redirection
Organizational specialization around the focal platform	Efficiency, expertise, coordination routines, faster product development	Hiring, teams and internal processes become aligned with one architecture	Reorientation requires organizational rather than merely technical change	Reinforces continuation through cumulative capability
Co-specialized complementary offering	Higher joint value when the complement and platform operate together	Product design becomes dependent on focal-platform functionality or demand	Stand-alone or rival-platform value may be lower	Converts prior openness into a more asymmetric later option set

Post-Commitment Restriction of Ecosystem Openness

A mature platform may alter governance after complementors have already adapted to the opportunity structure described above. Such change can involve reduced access, altered technical interfaces, stricter approval rules, platform-owner entry into complementary categories, modified commercial terms, privileged treatment of selected complements, or changes in the predictability of enforcement. The theoretical importance of these changes depends on whether they occur after commitments have altered the complementor's feasible alternatives.

Longitudinal evidence shows that platform-complementor relationships can evolve substantially rather than remaining fixed. Complementors may reduce dependence, change their relationship with the platform, or expand activity across alternatives through multihoming [14]. This means that accumulated commitment should not automatically be equated with permanent lock-in. Yet later governance changes can still become consequential when complementors have formed expectations about continued access. Research on inconsistent platform governance illustrates how discrepancies between formal governance and enacted practice can alter complementor conduct and ecosystem dynamics [15]. The credibility of prior governance therefore matters alongside the content of the new restriction.

Platform-owner intervention also produces evidence that directly challenges any deterministic crowding-out account. Entry by Google Photos was associated with increased innovation activity among some affected complementors, demonstrating that owner entry can generate attention or demand effects rather than simply suppressing third-party innovation [16]. Other evidence indicates that the threat of platform-owner entry can reduce innovation in exposed areas while redirecting complementor effort toward alternative applications or platforms [17]. Platform-owner acquisitions may also deter later entry where acquisition synergies strengthen the owner's competitive position [18]. These findings show that platform intervention can stimulate, redirect, deter, or reorganize innovation depending on the mechanism and context.

The article therefore defines post-commitment restriction of ecosystem openness narrowly as a governance change that occurs after substantial relationship-specific commitment and that changes the relative value, feasibility, or control conditions of future complementor innovation. A governance change that leaves the complementor's opportunity set materially unchanged is not sufficient. Conversely, a restriction may constitute a critical juncture when it interrupts an established trajectory precisely because earlier openness encouraged commitments that now limit immediate redirection.

The resulting process is best represented as a branching trajectory rather than as a linear openness-to-lock-in sequence. The same initial openness can generate different commitment stocks; the same restriction can then intersect those commitments differently; and subsequent paths may include persistence, reconfiguration, multihoming, or detachment.

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The relationships discussed here are shown in **Figure 1.**

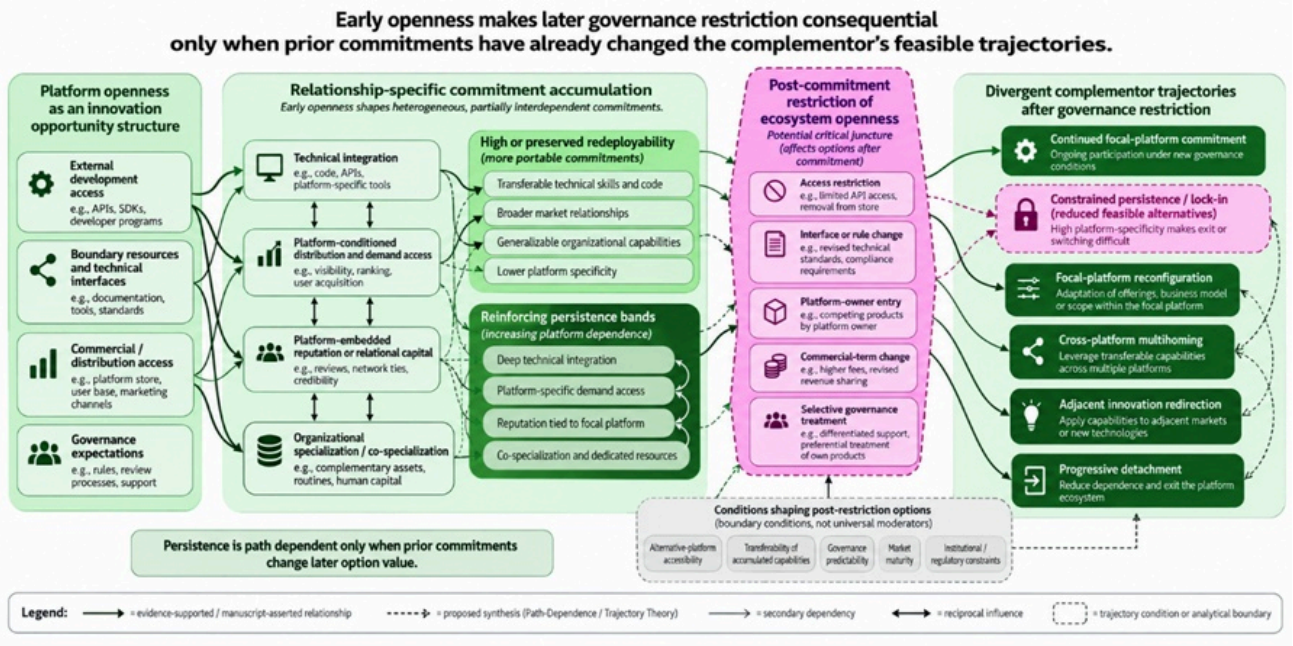

Figure 1. Early openness makes later governance restriction consequential only when prior commitments have already changed the complementor's feasible trajectories

Appropriation Risk and Incentive Redistribution

Once substantial platform-specific commitment has accumulated, a later restriction can alter not only the expected amount of innovation but also where complementors choose to place it. Mature ecosystems frequently confront a generativity tension: broad participation can create reputational, demand, and innovation benefits while also increasing imitation, free-riding, congestion, or value-capture conflicts [19]. Platform owners may therefore have legitimate strategic reasons to increase control as ecosystems mature. The theoretical question is not whether control is intrinsically improper, but how a governance change reallocates expected returns after complementors have adapted to an earlier opportunity structure.

Relationship-specific investment makes this reallocation asymmetric. A complementor whose capabilities remain portable can treat a restrictive move largely as a change in comparative returns across platforms. A highly specialized complementor may instead face a gap between the value of continued focal-platform participation and the recoverable value of leaving. The platform's governance decision can then redistribute bargaining exposure without immediately changing formal participation. Similarly, evidence on platform-owner entry shows that complementors may redirect effort away from threatened areas instead of terminating innovation altogether [17].

For this reason, appropriation risk is defined here as the possibility that a later governance change reduces the complementor's expected ability to retain, redeploy, or continue appropriating returns from investments that were made under an earlier governance state. It does not require proof of opportunistic intent by the platform owner. The construct concerns changed incentive conditions, not inferred motives.

The associated outcome is therefore better described as innovation-incentive redistribution than as innovation suppression. Some platform interventions have produced increased innovation among affected complementors [16], while competitive crowding and demand spillovers can coexist within the same ecosystem [10]. A platform restriction may

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consequently shift innovation among focal-platform deepening, defensive adaptation, rival-platform activity, adjacent products, or eventual withdrawal. **Table 2** separates these destinations without assuming that one must dominate.

Table 2. Post-commitment restriction can redistribute innovation incentives across several destinations without immediately terminating participation

Innovation destination	Change in expected return that can motivate it	Observable strategic response	Role of prior relationship-specific commitment	Condition that can weaken the response
Continued focal-platform deepening	Focal ecosystem remains the highest-value venue despite greater appropriation exposure	Continued investment, specialization, feature expansion	High commitment raises the value of preserving accumulated capabilities	Strong deterioration in expected focal returns
Defensive focal-platform adaptation	Maintaining existing position becomes more valuable than expanding commitment	Compliance adaptation, redesign, narrowed innovation scope	Existing commitment makes preservation economically important	Low maintenance value or highly portable capabilities
Cross-platform expansion	Alternative ecosystems become comparatively more attractive	Multihoming, parallel development, resource reallocation	Existing focal commitment can slow but need not prevent expansion	High multihoming cost or weak alternative platforms
Adjacent innovation redirection	Returns decline in directly exposed complement categories	Innovation shifts to less contested or less restricted activities	Commitment may be partly reusable in adjacent domains	Strong dependence on platform-specific demand or architecture
Progressive detachment	Expected future focal returns fall below viable outside options	Reduced focal investment, capability migration, eventual exit	Deep commitment can delay detachment and create transitional persistence	Absence of credible alternative demand, infrastructure or institutional access

Dynamic Complementor Responses

Complementors do not respond uniformly to platform-owner moves because their existing positions, capabilities, product scope, and outside options differ. Evidence on cross-platform competition shows that generalist and specialist complementors can reallocate effort differently after platform-owner entry [20-22]. Longitudinal research further shows that complementor reactions can unfold as trajectories rather than isolated choices. Firms may initially insist on maintaining the established relationship, later pivot toward modified roles or alternative opportunities, or progressively detach as the focal platform becomes less attractive. These paths matter because the same observed state—continued participation—may represent commitment, temporary accommodation, experimentation with alternatives, or delayed exit.

Multihoming is particularly important because it weakens any simple equation between platform-specific commitment and permanent dependency. Complementors operating across multiple platforms can acquire knowledge that improves performance on their original platform, indicating that outside participation may expand capabilities rather than merely substitute away from the focal ecosystem [23]. Redirection capacity therefore depends not only on the existence of another platform but also on whether accumulated capabilities can be recombined across settings.

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Timing also matters. Evidence from nascent platform markets shows that complementors may sequence multihoming rather than adopting all available platforms simultaneously [24]. Entry into alternatives can become more attractive only after uncertainty falls, interoperability improves, or the complementor accumulates sufficient resources to absorb duplicated development costs. Conversely, waiting can deepen focal specialization and make later redirection more difficult. The trajectory may therefore exhibit a self-reinforcing quality even without explicit contractual exclusion.

The arrival of a rival platform introduces another source of heterogeneity. Complementors differ in whether new competition creates an attractive expansion opportunity or forces costly strategic trade-offs [25]. These differences caution against explaining every response through sunk investment. A complementor may remain because its focal-market prospects are genuinely superior, while another may leave because a rival platform offers stronger demand rather than because prior governance destroyed the viability of continued participation.

For Path-Dependence / Trajectory Theory, the discriminating issue is whether two complementors facing a similar current restriction behave differently because their prior commitment histories have changed the options now available to them. This yields three distinct theoretical possibilities. First, high relationship-specific commitment may reinforce focal persistence when outside options are weak. Second, accumulated capabilities may support redirection when parts of the commitment stock are transferable across platforms or adjacent opportunities. Third, a complementor may remain formally present while moving its most valuable future innovation elsewhere. The latter case is especially important because platform participation metrics alone could conceal a significant redistribution of innovative effort.

The dynamic account therefore rejects a binary stay-or-exit model. Mature-platform restriction can produce persistence, defensive adaptation, multihoming, adjacent redirection, capability migration, or eventual detachment, and these trajectories can evolve over time. What Path-Dependence / Trajectory Theory adds is the proposition that their relative feasibility is partly endogenous to the complementor's earlier sequence of commitments. The next section develops the governance conditions under which a platform can preserve innovation incentives after such commitments have accumulated without assuming that openness must remain permanently unchanged.

Post-Commitment Platform Governance Framework

Governance after substantial complementor commitment should be treated differently from governance applied before those commitments accumulate. Digital ecosystems combine platform-owner direction with varying degrees of complementor self-organization, so effective governance cannot be reduced to unrestricted openness or unilateral control [26]. The relevant question is whether later changes preserve a viable field of future action for actors whose earlier investments were encouraged under a different governance state.

Decision rights are central to this distinction. Industrial platform research shows that platforms vary substantially in how authority, participation, and coordination are distributed across ecosystem actors [27]. Governance mechanisms such as monitoring, reputation systems, and platform support likewise affect complementor participation and value co-creation through different channels [28]. In a post-commitment setting, these mechanisms acquire additional significance because one party may retain the authority to revise conditions governing investments already made by another.

The proposed framework therefore distinguishes governance continuity from governance immutability. A platform need not promise that interfaces, rules, commercial conditions, or strategic priorities will never change. The stronger requirement is that complementors retain credible ways to anticipate, contest, adapt to, or redirect around major changes. Emerging evidence from generative-AI ecosystems similarly indicates that platform interfaces and complement characteristics condition how third parties create value [29]. Governance that preserves future options can therefore matter as much as governance that protects current access.

This logic is reinforced by research showing that ecosystem governance can create future capabilities and option sets through resourcing, capacitating, and purposive coordination [30]. It is also constrained by the fact that platform authority

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may extend beyond conventional bilateral contracting [31], while regulation can alter whether firms are able to occupy orchestrator or complementor roles at all [32]. Post-commitment governance must consequently be evaluated within both platform-level authority structures and the institutional environment that defines feasible alternatives.

Table 3 translates these relationships into governance distinctions specific to a mature platform confronting already-committed complementors.

Table 3. Governance conditions that preserve or narrow complementor trajectories after substantial platform-specific commitment

Post-commitment governance condition	Decision-right implication	Effect on accumulated commitment	Consequence for redirection capacity	Path-dependent interpretation
Predictable rule evolution	Major changes remain interpretable and reasonably anticipatable	Existing capabilities retain planning value	Alternative preparation remains possible	Reduces abrupt trajectory closure
Transitional adaptation capacity	Complementors retain time or mechanisms to adjust to material change	Prior investment can be reconfigured instead of immediately stranded	Supports gradual rather than forced redirection	Preserves path plasticity
Contestable platform decisions	Complementors possess meaningful channels for challenge, clarification, or correction	Dependence is moderated by procedural recourse	Reduces unilateral narrowing of options	Weakens reinforcement generated purely by authority asymmetry
Transferable interfaces and capabilities	Technical and organizational assets retain partial portability	Commitment remains partly recoverable outside the focal platform	Supports multihoming or adjacent redeployment	Limits conversion of commitment into lock-in
Institutional and regulatory outside options	External rules preserve alternative market roles or platform access	Platform dependence is bounded by the broader institutional environment	Makes exit, re-entry, or role change more feasible	Creates exogenous escape paths from an otherwise reinforcing trajectory

Propositions

The preceding analysis yields propositions that distinguish a Path-Dependence / Trajectory Theory account from explanations based only on current market power or switching costs.

Proposition 1. For a given contemporary restriction of ecosystem openness, the reduction or redirection of complementor innovation will be greater when earlier relationship-specific commitments have materially reduced the redeployability of capabilities and organizational routines. This proposition follows from the requirement that path dependence involves self-reinforcing changes in later alternatives [3] and from evidence that relationship-specific investment alters exposure to counterpart-dependent risk [11]. It predicts different outcomes among complementors facing similar current rules but different commitment histories.

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Proposition 2. The effect of post-commitment restriction on innovation trajectories will weaken when complementors retain credible redirection capacity through transferable capabilities, multihoming, or accessible alternative ecosystems. Longitudinal evidence shows that complementors can follow different persistence, pivoting, and detachment trajectories [21], while multihoming can also generate capabilities that improve performance on the original platform [23]. The relevant boundary condition is therefore the quality of available alternatives, not merely their formal existence.

Proposition 3. Reversing a restrictive governance change will not necessarily restore the pre-restriction allocation of innovation when complementors have already migrated capabilities, expectations, or development resources toward alternative trajectories. Evidence that multihoming decisions are sequential [24] and that rival-platform entry creates heterogeneous strategic trade-offs [25] supports treating such reversibility as an empirical question. The stronger theoretical implication is hysteresis: once redirection has altered the complementor's capability configuration, restoring formal openness may be insufficient to recreate the earlier innovation path.

The propositions imply that identical observed governance states can have different consequences because actors may have reached them through different histories. **Figure 2** specifies the boundary conditions under which those differences should be observable.

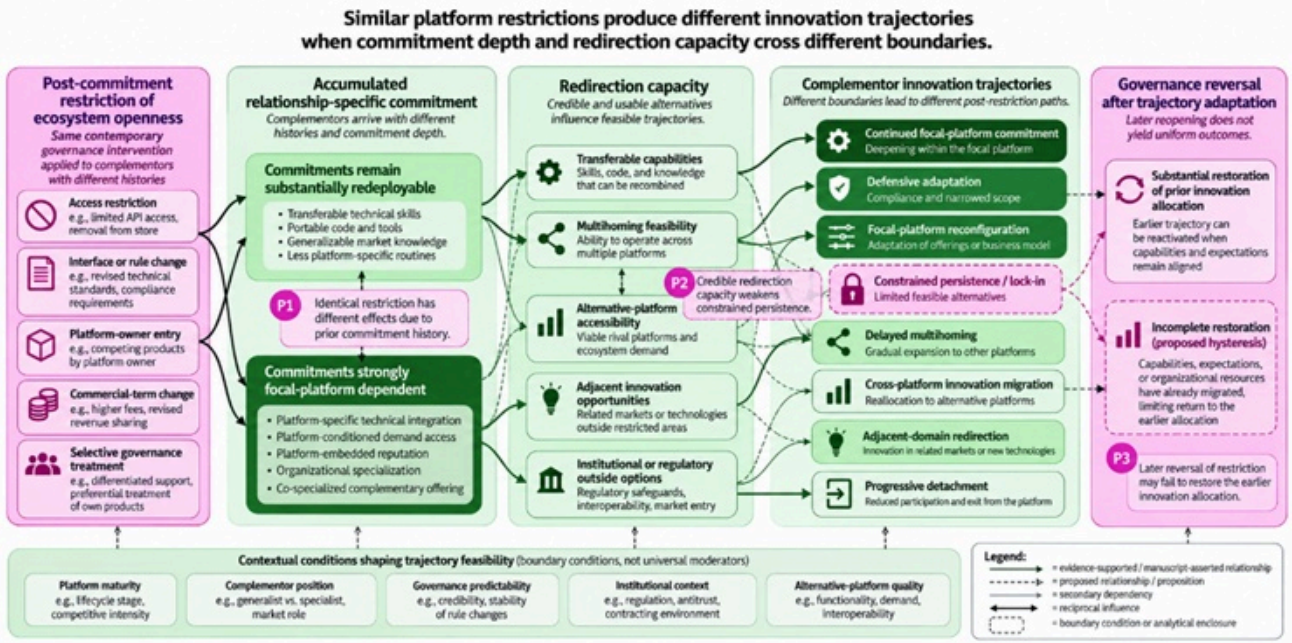

Figure 2. Similar platform restrictions produce different innovation trajectories when commitment depth and redirection capacity cross different boundaries

Innovation and Platform Implications

The framework changes the relevant unit of innovation analysis. A decline in innovation devoted to the focal platform does not necessarily imply that the complementor has become less innovative overall. Generativity tensions can alter where value is created and captured [19], while multihoming can transfer learning across platforms [23]. Researchers should therefore distinguish innovation volume from **innovation location** and track whether capabilities are deepened on the focal platform, duplicated elsewhere, redirected to adjacent domains, or withdrawn entirely.

For platform owners, post-commitment governance creates a credibility problem alongside the familiar control problem. Governance arrangements distribute decision rights differently [27], while option-preserving institutional designs can influence actors' future capabilities [30]. Mature platforms may therefore sustain innovation more effectively when major

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governance changes preserve credible adaptation and redirection mechanisms, particularly where earlier platform policies encouraged extensive complementary specialization.

The framework also implies that governance effects cannot be inferred independently of institutional context. Regulatory conditions can change the ecosystem positions available to both orchestrators and complementors [32]. Comparative research should consequently test similar platform restrictions across environments with different multihoming opportunities, contractual structures, interoperability conditions, and regulatory safeguards. The strongest empirical tests would compare complementors exposed to similar present governance while possessing meaningfully different histories of relationship-specific commitment.

Conclusion

Mature platforms can restrict ecosystem openness without producing a single predictable innovation outcome. The consequences depend partly on what preceded the restriction. When earlier openness encouraged substantial investments whose value became progressively tied to the focal ecosystem, subsequent governance change can alter the relative value of continued specialization, adaptation, multihoming, redirection, and exit. In that setting, innovation incentives are redistributed through a path-dependent process because prior commitments have changed the options available at the moment of intervention.

The resulting account does not imply that complementors inevitably become locked in or that mature platforms must preserve unchanged openness. Path dependence is strongest where commitment is difficult to redeploy and credible alternatives are weak. It is attenuated where capabilities remain transferable, outside options are viable, governance changes are predictable, or institutional arrangements preserve redirection capacity. The article therefore locates the theoretical problem in the interaction between history, commitment, governance change, and option value: the same formal restriction can generate different trajectories because complementors do not arrive at it with the same past.

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References

1. Jacobides MG, Cennamo C, Gawer A. Externalities and complementarities in platforms and ecosystems: From structural solutions to endogenous failures. Res Policy. 2024;53(1):104906. https://doi.org/10.1016/j.respol.2023.104906.

2. Rietveld J, Schilling MA. Platform competition: A systematic and interdisciplinary review of the literature. J Manage. 2021;47(6):1528-63. https://doi.org/10.1177/0149206320969791.

3. Sydow J, Schreyögg G, Koch J. On the theory of organizational path dependence: Clarifications, replies to objections, and extensions. Acad Manage Rev. 2020;45(4):717-34. https://doi.org/10.5465/amr.2020.0163.

4. Parker GG, Van Alstyne MW, Jiang X. Platform ecosystems: How developers invert the firm. MIS Q. 2017;41(1):255-66.

5. Jacobides MG, Cennamo C, Gawer A. Towards a theory of ecosystems. Strateg Manage J. 2018;39(8):2255-76. https://doi.org/10.1002/smj.2904.

6. Cenamor J, Frishammar J. Openness in platform ecosystems: Innovation strategies for complementary products. Res Policy. 2021;50(1):104148. https://doi.org/10.1016/j.respol.2020.104148.

7. Sobota VCM, de Reuver M, Afghari AP, van de Kaa G. Strategic openness: Category variety, boundary resources, and exclusive content as drivers of complementor participation. Electron Mark. 2026;36(1):33. https://doi.org/10.1007/s12525-026-00876-1.

8. Reiter A, Stonig J, Frankenberger K. Managing multi-tiered innovation ecosystems. Res Policy. 2024;53(1):104905. https://doi.org/10.1016/j.respol.2023.104905.

9. Saadatmand F, Lindgren R, Schultze U. Configurations of platform organizations: Implications for complementor engagement. Res Policy. 2019;48(8):103770. https://doi.org/10.1016/j.respol.2019.03.015.

10. Raj M. More is (sometimes) merrier: Heterogeneity in demand spillovers and competition on a digital platform. Strateg Manage J. 2024;45(13):2611-41. https://doi.org/10.1002/smj.3647.

11. David T, Troege M, Nguyen HM, Nguyen HT. Relationship-specific investments for up- and downstream firms and credit constraints. J Corp Finance. 2024;84:102534. https://doi.org/10.1016/j.jcorpfin.2023.102534.

12. Zhang N, You D, Tang L, Wen K. Knowledge path dependence, external connection, and radical inventions: Evidence from Chinese Academy of Sciences. Res Policy. 2023;52(4):104738. https://doi.org/10.1016/j.respol.2023.104738.

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13. Van Dyck M, Lüttgens D, Diener K, Piller FT, Pollok P. From product to platform: How incumbents' assumptions and choices shape their platform strategy. Res Policy. 2024;53(1):104904. https://doi.org/10.1016/j.respol.2023.104904.

14. Gastaldi L, Appio FP, Trabucchi D, Buganza T, Corso M. From mutualism to commensalism: Assessing the evolving relationship between complementors and digital platforms. Inf Syst J. 2024;34(4):1217-63. https://doi.org/10.1111/isj.12491.

15. Gawer A, Harracá M. Inconsistent platform governance and social contagion of misconduct in digital ecosystems: A complementors perspective. Res Policy. 2025;54(8):105300. https://doi.org/10.1016/j.respol.2025.105300.

16. Foerderer J, Kude T, Mithas S, Heinzl A. Does platform owner's entry crowd out innovation? Evidence from Google Photos. Inf Syst Res. 2018;29(2):444-60. https://doi.org/10.1287/isre.2018.0787.

17. Wen W, Zhu F. Threat of platform-owner entry and complementor responses: Evidence from the mobile app market. Strateg Manage J. 2019;40(9):1336-67. https://doi.org/10.1002/smj.3031.

18. Wang Y, Yue LQ, Rajagopalan N, Wu B. The entry-deterring effects of synergies in complementor acquisitions: Evidence from Apple's digital platform market, the iOS app store. Strateg Manage J. 2024;45(13):2791-817. https://doi.org/10.1002/smj.3639.

19. Cennamo C, Santaló J. Generativity tension and value creation in platform ecosystems. Organ Sci. 2019;30(3):617-41. https://doi.org/10.1287/orsc.2018.1270.

20. Kapacinskaite A, Mostajabi A. Competing with the platform: Complementor positioning and cross-platform response to entry. Strateg Manage J. 2024;45(12):2577-607. https://doi.org/10.1002/smj.3643.

21. Kude T, Huber TL. Responding to platform owner moves: A 14-year qualitative study of four enterprise software complementors. Inf Syst J. 2025;35(1):209-46. https://doi.org/10.1111/isj.12527.

22. Chung HD, Zhou YM, Ethiraj S. Platform governance in the presence of within-complementor interdependencies: Evidence from the rideshare industry. Manage Sci. 2024;70(2):799-814. https://doi.org/10.1287/mnsc.2023.4706.

23. Polidoro F Jr, Yang W. Porting learning from interdependencies back home: Performance implications of multihoming for complementors in platform ecosystems. Strateg Manage J. 2024;45(9):1791-821. https://doi.org/10.1002/smj.3601.

24. Aydin Ozden S, Suarez FF, Libaers D, Bart Y. Smart timing for smart products? Complementor multihoming in nascent platform markets. J Prod Innov Manage. 2026;43(4):690-714. https://doi.org/10.1111/jpim.70005.

25. Loh J, Elsas-Nicolle A. Platform competition and strategic trade-offs for complementors: Heterogeneous reactions to the entry of a new platform. Strateg Manage J. 2026;47(6):1671-729. https://doi.org/10.1002/smj.70062.

26. Engert M, Hein A, Maruping LM, Thatcher JB, Krcmar H. Self-organization and governance in digital platform ecosystems: An information ecology approach. MIS Q. 2025;49(1):91-122.

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27. Springer V, Randhawa K, Jovanovic M, Ritala P, Piller FT. Platform design and governance in industrial markets: Charting the meta-organizational logic. Res Policy. 2025;54(6):105236. https://doi.org/10.1016/j.respol.2025.105236.

28. Zhang Q, Che Y, Sheng S, Bai X, Li W. The impact of IT governance on participation slackness and value co-creation of digital platform complementors. Electron Mark. 2025;35(1):81. https://doi.org/10.1007/s12525-025-00830-7.

29. Heimburg V, Schreieck M, Wiesche M. Complementor value co-creation in generative AI platform ecosystems. J Manage Inf Syst. 2025;42(2):491-528. https://doi.org/10.1080/07421222.2025.2487310.

30. Sanner TA, Kempton AM, Russpatrick S, Sæbø JI. Governing digital platform ecosystems for social options. Inf Syst J. 2025;35(2):422-49. https://doi.org/10.1111/isj.12546.

31. Mayya R, Li Z. Growing platforms by adding complementors without a contract. Inf Syst Res. 2025;36(3):1670-90. https://doi.org/10.1287/isre.2023.0237.

32. Cozzolino A, Geiger S. Ecosystem disruption and regulatory positioning: Entry strategies of digital health startup orchestrators and complementors. Res Policy. 2024;53(2):104913. https://doi.org/10.1016/j.respol.2023.104913.

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