

“Strategic governance of business platforms: From autocracy to open source control systems”

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Abstract

This perspective article focuses on business platforms as new forms of organization and governance within the decision-making centralization/decentralization continuum. It aims to address the following research questions: How does the context of business platform creates new theoretical challenges regarding the traditional centralization/decentralization of governance debate? What are the main cost-benefit trade-offs regarding (de) centralization of decision-making process in a platform's organizational “ecosystem”? The paper outlines the platforms' governance spectrum that ranges from a high degree of centralization to the “open source” governance model. This is followed by a discussion of drivers of governance models including an interface between platform-specific investment and heterogeneity of platform participants. The paper concludes with an outline of implications for future research and practice.

KEYWORDS

Platform governance, decentralization, platform performance

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INTRODUCTION

Platform-based firms and related ecosystems have come to dominate the landscape of many industries (Cennamo, 2021; Fan et al., 2021; Zahra and Nambisan, 2012). A defining feature of such firms—like Amazon, Apple and Facebook—is that they are organized around a platform, which functions as an interface between two (or more) groups of actors and facilitates value-creation exchanges (Cennamo and Santalo, 2013; Jacobides et al., 2018). Specifically, platform-based firms thrive on cooperation, coordination, and integration across communities of hierarchically independent, yet strategically interdependent heterogeneous actors—i.e., a platform ecosystem—which collectively generate a shared value proposition within the rules and resources of the platform (Thomas and Ritala, 2022). Specifically, Adner (2017: 40) provides a definition of ecosystem as “the alignment structure of the multilateral set of partners that need to interact in order for a focal value proposition to materialize”. For example, a platform ecosystem typically consists of a platform owner/manager (i.e., integrator) that designs and governs its technical architecture and different groups of actors that interact on the platform, such as providers of complementary products and services to the platform (i.e., complements) and users that consume those products or services (Jacobides et al., 2018; Schmeiss et al., 2019).

The rise of novel platform-based enterprises has significant implications for corporate governance (CG), given that participants within these platforms frequently undertake multiple roles, serving as customers, technology providers and investors, thereby contributing financial and technological resources pivotal to the platform's developmental trajectory (Cennamo, 2021). Notably, an increasing number of decentralized platforms—characterized by communal rather than centralized control—has emerged (Chen et al., 2021; Hsieh and Vergne, 2023), engendering a diverse spectrum of platform governance models that have not yet converged into a singular paradigm. The proliferation of diverse governance structures prompts an inquiry into the reasons

underlying this divergence and their possible theoretical explanations. Research on platform governance modes also necessitates a recognition of critical contingencies that elucidate why specific governance modes better align with particular contexts and corporate strategies, while others do not. Consequently, a universally endorsed mode of corporate governance remains elusive, as “one size does not fit all”. Although platforms can fundamentally change the way firms organize both intra- and interorganizational collaborations, generate and deliver value to customers (Constantinides et al., 2018; Lumineau et al., 2021), very little is known about the governance settings within which platforms generate more value, and our perspective paper aims to address this theoretical gap. We also aim to outline a future research agenda by reflecting critically on platforms as a form of structure and governance.

Extant research has only recently started to investigate the consequences of platform governance in terms of the (de)centralization of the decision-making process—i.e., how decision-making authority is split between platform owners/managers and community members who often are also key investors in the platform’s development (see Chen et al., 2021, for a discussion in the context of blockchain platforms). Platforms provide research context that represents a significant departure from the classical principal – agent perspective that underpins the main body of corporate governance research (Shleifer and Vishny, 1997). As this research puts suppliers of financial capital in the center of the platform’s CG mechanism, we refer to this well-established stream of research as a “supply-side CG perspective”.

A more recently developed “demand-side CG perspective” suggests that product market customers can also have an important CG impact. Krause, Filatotchev, and Bruton (2016) and Krause, Chen, Bruton, and Filatotchev (2021) argue that the legitimacy of a firm’s governance structure among customers becomes crucial when they are at the core of a firm’s competitive advantage, and thus possess great power to confer legitimacy on a firm. However, past research

has not considered the possibility that customers may also be endowed with ownership and control rights to various degrees.

To date, we lack a thorough understanding of the conditions that affect the value of centralization of decision-making process to platform owners/managers or decentralization towards external actors that might have a dual role (i.e., investors *and* prospective customers). In this paper, we draw on institutional and demand-side CG perspectives to examine the relationship between a platform's governance (i.e., the (de)centralization of decision-making) and platform-specific investment and heterogeneity of platform participants. First, we differentiate between centralized governance mode as opposed to a model based on "open source" governance (Filatotchev and Lanzolla, 2023). We outline cost-benefit trade-offs associated with these extreme cases. Second, we explore how the heterogeneity of platform participants and the nature of their platform-specific investment may determine the specific choice of CG mode. Finally, we discuss potential challenges and performance implications of this complex interface between the platform's CG and business strategy, and suggest avenues for future research.

2.1 Corporate governance in digital platforms

As we indicated above, platform-based firms thrive on cooperation, coordination, and integration across communities of formally independent, yet strategically connected heterogeneous actors—i.e., a platform ecosystem—which collectively generate a shared value proposition within the rules and resources of the platform (Thomas and Ritala, 2022). However, governing a diverse set of actors to pursue activities and outcomes that are acceptable to all can be especially challenging bearing in mind the diversity of actors and their interests. In a recent study Hartwell, Lawton and Tingbani (2024) focus on challenges of collective strategies among members of "meta-organizations" whose members are loosely connected in the absence of

binding contractual agreements. The platform owners/managers, therefore, should apply appropriate governance mechanisms, including an allocation of decision rights, incentive structures, and control mechanisms, to manage the relationship with the community of external actors to enable joint value creation while guaranteeing effective value capturing for all participating actors (Schmeiss et al., 2019; Wareham et al., 2014; Zhang et al., 2022).

Prior research on platform governance has taken an agency theory perspective, which has focused on financial value creation and the governance preferences of platform owners/investors. Filatotchev and Lanzolla (2023) argue that these considerations underpin the formation of autocracy-based CG mechanisms (the authors call it “legacy governance”). This model of platform governance is heavily reliant on a centralized system of control to deal with potential governance problems within the platform’s ecosystem. In this model, platform owners are predominantly concerned with financial value-added, and they would rely heavily on structural corporate governance mechanisms related to monitoring and oversight. In this context, an effective governance is associated with information disclosure procedures and financial risk management. The platform’s governance relies on a centralized, hierarchical system of accountability and reporting, and performance monitoring and risk management extensively use financial performance indicators as key benchmarks. Netflix, which we will discuss in detail below, presents a good example of centralized platform governance. The second column in Table 1 summarizes the mechanisms through which centralized governance delivers on its functions.

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More recent research grounded in institutional theory and organizational sociology have largely advocated an ‘open systems’ perspective, which suggests that different corporate governance practices may be more or less effective depending upon the contexts of different

organizational environments (Aguilera et al., 2008). Within the field of corporate governance, this research comes closer to an ‘open systems’ approach by recognizing that the effectiveness of corporate governance practices depends on a wider set of firm-related actors and institutional settings. This shifts attention from efficiency arguments (e.g., narrow definitions of financial performance) toward a broader understanding of effectiveness in terms of goal attainment in relation to the multiple objectives of different constituent participants (i.e., supplier reciprocity, platform users’ loyalty, etc.).

Therefore, to systemically address the complexities associated with platform ecosystem corporate governance may incorporate two new principles: (a) the need of systematically increasing complementarities among internal and external participants in both governance and strategy; and (b) the need of purposely balancing short-term economic performance and long-term legitimacy. These two principles are the foundations of what Filatotchev and Lanzolla (2023) call “open source” governance. The third column in Table 2 summarizes its key considerations.

Overall, open-source governance shifts emphasis towards developing a system of interactions between the platform and its eco-system. A key part of open-source governance is associated with transition to a reliance by the owners/investors on “strategic” rather than “financial controls” within governance mechanism. These “strategic controls” are less concerned with short-term financial performance but may be focused instead on issues related to the platform’s long-term sustainability and growth in market share, and specifically the participants’ support. To give a practical example, Golem—a decentralized marketplace for computing power which allows network participants to loan out their idle computer’s processing power to others who need it for complex applications (e.g., scientific calculation, machine learning, etc.) – provides its investors

with a utility token, GLM. It is used to access the Golem network allowing users to rent or buy computing power across the platform. In these settings, factor and product market participants are essentially the same entities and individuals, which creates a novel context for CG research.

The “openness” of the platform’s governance mechanisms ensures that participant constituencies provide key inputs into the process of strategic control and provide context for the process of performance monitoring. Unlike formal, highly centralized systems of accountability and reporting based on financial indicators, “strategic controls” deploy more informal systems of communication between key decision-makers and participants, as well as risk-management systems focused on broader definitions of risk, including broader risks of de-legitimization. The latter includes a wide range of economic and social factors, such as organizational legitimacy vis-à-vis not only investors but also broader social groups, such as user communities. In this type of governance, reputational and trust considerations, rather than market for corporate control, underpin external governance pressures on managers.

This institutionalized perspective on CG (e.g., Bell et al., 2014; Krause et al., 2016, 2021) suggests that a platform’s governance mechanisms influence the perceptions of the platform’s value in the eyes of external assessors. Platform governance is related to how the power and influence over decision making is spread out among the different participants toward the platform (e.g., centralization versus decentralization). It represents a key factor that may have profound implications for the development of the platform and, consequently, for actors’ evaluation of the platform market potential (Hsieh et al., 2017; Ondrus et al., 2015).

Indeed, centralized governance models have advantages in terms of increased transparency and accountability, as well as including checks and balances on powerful actors, thereby minimizing the possibility of self-serving behavior of platform managers (Chen et al.,

2021; Chod et al., 2022; Murray et al., 2021). However, platform participants are not only investors, but at the same time are customers (end-users) of the platform (Howell et al., 2020; Momtaz, 2021) who may have divergent interests (e.g., ideological and technological motives) in addition to the prospect of financial gains and, therefore, also have different time horizons (Fahlenbrach and Frattaroli, 2021; Fisch et al., 2021). They may even have different financing priorities – for example musicians may not want an increase in fees of a music sharing platform they are members of. This means that their investment decision is not only based on the potential return on investment, but also on their trust in the platform’s ability to deliver its promised services or products that meet their needs (Cong et al., 2021). Accordingly, they may impose different, even conflicting, pressures in terms of what is required from platform owners/managers.

The open-source model of corporate governance also imposes new demands on the structure and functioning of corporate governance. When investors are also customers, the demand-side perspective becomes particularly prominent as it creates a new layer of potential conflicts, this time among customers-investors. Indeed, transferring decision-making to such a diverse group can hamper decision speed or even lead to inaction and a lack of clarity in terms of what will (or should) be developed. To mitigate these problems, and reconcile the opposing forces among actors who take dual roles of investors and customers, the concentration of decision-making power at the platform management level may actually be more valued by the platform participants.

These arguments suggest that there are significant trade-offs associated with the degree of centralization of platform governance, hence we observe a spectrum of governance modes. In the following section, we discuss important contingencies that may affect a specific choice within this spectrum.

2.2. Heterogeneity of platform participants and the role of their platform-specific investment

The benefits of decentralized platform governance are well documented in the literature. One key advantage is that it facilitates the coordination of participation by making the expectations of platform access and control clearer for potential participants. As O'Mahony and Karp (2020) point out, platform participants change their behavior and are more or less reluctant to join the platform when access and control change. Access refers to the extent to which a platform is legally open and usable by external participants, while control refers to the rights to determine the rules of platform usage. Decentralized governance can help establish transparent rules, thereby providing greater predictability for platform participants.

Moreover, decentralized governance serves as a mechanism to mitigate potential problems of ex-post expropriation orchestrated by platform leaders (Chen et al., 2021). According to Lumineau et al. (2021), the proclivity for opportunistic conduct on the part of platform proprietors diminishes in the context of decentralized governance structures. This is related to enhanced accountability and transparency associated with decentralization, making it difficult for platform owners to prioritize their individual interests over the collective concerns of other participants. This is particularly relevant for the cases of a complete decentralization (the third column in Table 1), when the decision-making authority is ceded to participants who must collectively vote on any alterations to governance regulations that could conceivably run counter to their personal interests. Consequently, the decentralization approach functions as a commitment mechanism, forestalling the appropriation of investments specific to the platform by participants.

Decentralized Autonomous Organizations (DAOs) represent an extreme example of decentralized governance. These are autonomous organizations governed by a set of pre-defined rules programmed as source code. Once implemented, they work automatically, decentralizing the process of hiring new members, providing services, and making decisions. Sockin and Xiong (2023) argue that tokenization can be used as a commitment device to prevent the exploitation of users by platform owners. By using tokens as a means of exchange, participants can be assured that their interests will be protected and that platform owners will not engage in opportunistic behavior.

Overall, the benefits of decentralized platform governance are clear. By providing greater predictability, accountability, and transparency, decentralized governance can help facilitate participation, mitigate the risk of expropriation, and promote platform-specific investments. DAOs represent an extreme example of decentralized governance, and tokenization can be used as a commitment device to further strengthen the credibility of decentralized governance.

One example of how centralized platform governance can negatively impact platform participants can be seen in the case of SoundCloud. In the early days of the platform, SoundCloud was known for being a hub for independent musicians to share and promote their music. However, as the platform grew in popularity, SoundCloud began to prioritize its relationships with major music labels over its independent musician community. This has led to changes in the platform's terms of service and algorithm, which made it more difficult for independent musicians to gain visibility and grow their audiences. In essence, SoundCloud

betrayed its initial community of independent musicians in order to attract bigger players to the platform.¹

Another example of how centralized platform governance can be of a disadvantage to platform participants can be seen in the case of Twitter's (currently renamed as X) decision to close down third-party application providers. Many developers had invested time and resources into building applications that integrated with Twitter's platform, only to have their efforts going to waste when Twitter abruptly changed its policies and closed off access to these applications. This left many developers feeling frustrated and disillusioned, as they had put significant resources into building tools that were suddenly rendered useless.

These examples highlight the risks associated with centralized platform governance, and the importance of considering the needs and interests of all platform participants when making decisions. By prioritizing the needs of a select few, centralized platforms risk alienating their core user base and damaging the trust and reputation they have built up over time. In contrast, decentralized platform governance can help to ensure that all participants have a voice in the decision-making process, and that the platform operates in a fair and transparent manner.

While there are certain benefits associated with decentralized platform governance, it also comes with a number of costs. One key challenge of decentralized governance is the potential impact on decision-making speed. When all participants have a voice in the decision-making process, it can be more difficult to reach consensus and make decisions in a timely manner (Kyprianou, 2018). This can be especially problematic in fast-paced industries where quick decision-making is necessary to remain competitive. Additionally, decentralized governance can

¹ For a comprehensive discussion of how Soundcloud changed strategy regarding independent musicians see <https://platformchronicles.substack.com/p/audiis-the-decentralized-platform>

result in collective action problems, where participants may be hesitant to take action that benefits the platform as a whole because they are concerned that others will not do the same.

An example of the potential problems associated with decentralized governance is the conflict among key participants in the Ethereum blockchain platform revolving around the proposed alterations to its code in 2016². This discord arose from an incident in which a hacker stole around 3.6 million ETH (Ethereum's native currency) valued at \$50 million. This prompted discussions about the necessity to modify the network's trajectory to either recover or safeguard these coins. One option involved a “soft fork” that would prevent the attacker from withdrawing ethers from the new entity created in the aftermath of the event, followed by a potential “hard fork” to facilitate the return of funds to the DAO’s token holders. Another option was related to community-driven efforts to recover the funds without direct protocol intervention. Proponents of code changes argue that such steps would obstruct the attacker's ability to sell the stolen ethers, facilitating their eventual restitution to DAO stakeholders. However, some dissenting voices advocated against drastic measures like forking, fearing potential damage to Ethereum's reputation, questioning its decentralization principles, and even suggesting regulatory intervention.

Ultimately, the Ethereum DAO made a decision to support of implementing the hard fork approach. Nonetheless, this has stirred intense discussions among its participants, leading a substantial faction to opt for adherence to the initial platform. Consequently, there now exist two distinct Ethereum blockchains concurrently. Devotees of the original blockchain aligned themselves with Ethereum Classic—essentially the unaltered original Ethereum—culminating in the birth of a new coin, ETC. Conversely, proponents of the upgrade, designed to rectify the

² <https://www.coindesk.com/markets/2016/06/17/will-ethereum-fork-dao-attack-prompts-heated-debate/>

hacking incident and cyber theft, forged an iteration simply referred to as Ethereum, maintaining ETH as its intrinsic cryptocurrency.

Another challenge of decentralized governance is the tradeoff between openness and complexity. While decentralized governance can promote openness and inclusivity, too much openness can result in decreased platform-specific investment (Chen et alia 2020). When participants are uncertain about the platform's rules and governance structure, they may be less likely to invest in the platform long-term. Moreover, achieving consensus on what the optimal governance rule should be can be challenging because different participants may have conflicting interests (Kyprianou, 2018, Hagiou & Wright, 2022).

Decentralized governance can also present challenges related to leadership. In the absence of clear leadership, it can be difficult to drive the platform forward and make strategic decisions that benefit all participants. Finally, decentralized governance can raise concerns related to antitrust laws. When participants act in a coordinated manner, it may be impossible to distinguish between legitimate cooperation and collusion that violates antitrust laws (Vergne, 2020).

Taken together, these challenges highlight the potential risks associated with decentralized platform governance. While it is important to consider the benefits of decentralization, it is also crucial to weigh these against the potential costs and benefits tradeoffs. In the following section we will focus on key organizational contingencies that may affect these tradeoffs leading to a diversity of platform governance mechanisms.

Implications for optimal governance: A contingency approach

The optimal decision of whether to opt for centralized or decentralized governance depends on several contingencies (Chen, Tong, Tang, and Han, 2022). One such contingency is the risk of expropriation, which suggests that the benefits of decentralized governance are higher when the risk of expropriation is lower. If participants have no other platform competitor to go to, the risk of expropriation is higher. The competitive threat, therefore, reduces the risk of appropriation since platform participants can credibly go to a competitor to take advantage of their services. If there is an alternative platform that performs a similar function, the loss of platform-specific investment is lower. With a centralized governance, platform-specific investments will be lower when participants anticipate a winner-takes-all market. Therefore, the importance of decentralized governance as a commitment device to encourage platform-specific investment is less crucial in such situations.

Another contingency that affects optimal governance choices is the heterogeneity of platform participants. The costs of decentralized governance increase with higher heterogeneity as it increases the likelihood of divergent incentives and conflicts. Hagiwara & Wright (2020) suggest that this heterogeneity may lead to a reduction in the overall effectiveness and speed of decision-making, which would increase the costs of decentralized governance. Therefore, the degree of heterogeneity of platform participants is another contingency that must be considered when deciding between centralized and decentralized governance.

To summarize, the decision to adopt centralized or decentralized governance depends on several contingencies, including the risk of expropriation and the degree of heterogeneity of platform participants. The benefits of decentralized governance are higher when the risk of expropriation is lower, and the costs increase with higher heterogeneity of platform participants. It is essential for a platform to identify these contingencies to make optimal governance choices.

Based on the previous arguments, in Table 2 we provide a contingency analysis of optimal platform governance combined with strategic scenarios and case study examples.

*****INSERT TABLE 2 AROUND HERE*****

Scenario 1. In this particular scenario, two key factors come into play: high platform-specific investment and low platform participant heterogeneity. The magnitude of investment dedicated to the platform amplifies the significance of establishing a credible commitment, one that reassures participants that they will not be taken advantage of and that the returns on their investments will not be unjustly appropriated. This creates a compelling argument in favor of adopting a decentralized governance system, which offers unique advantages that we discussed above.

Moreover, when there is low heterogeneity among participants' interests, a formation of consensus becomes more likely, leading to a substantial reduction in the likelihood of conflicts and sluggish decision-making processes. The absence of divergent interests facilitates smoother coordination and enables quicker resolutions. As a result, the relative costs associated with decentralized governance are significantly diminished in this specific context. By carefully considering the interplay between platform-specific investment and participant homogeneity, organizations can strategically align their governance structures, leveraging the benefits of decentralization while minimizing potential drawbacks.

An example of this scenario can be the distribution of indie music to fans. Indie music, in contrast to commercial music, targets specific niche audiences. A platform acts as the bridge between musicians and their fan base, facilitating connections and interactions. In this context, musicians are required to make substantial platform-specific investments, extending beyond merely recording and uploading their music. They must also generate platform-specific content

and establish a presence tailored to their fans. Musicians go the extra mile by embedding the corresponding music player with social media integration. Furthermore, they actively engage with the platform to cultivate a loyal audience, from which they can collect various types of data in one centralized location. All the time and effort invested in these platform-specific activities are at risk of appropriation if the platform suddenly alters the rules of the game, working against the interests of the musicians, as happened in the case of SoundCloud, as explained previously.

Moreover, indie musicians share a common need to find profitable niches outside the realm of conventional commercial channels and traditional promotional methods. It is precisely for this reason that decentralized platforms like Audius hold promising prospects, catering specifically for this music niche. Audius operates as a decentralized music streaming platform that empowers both artists and fans. Musicians can freely host their music on the platform, bypassing the need for conventional record label agreements, and start earning revenue from their creations. This is made possible through the platform's web player and native app, which stream music from an array of independent and represented artists. Audius offers established and emerging artists a channel to showcase their music, access streaming analytics, and cultivate a fanbase with lower financial barriers compared to traditional music streaming services. Unlike centralized services, Audius relies on a global network of content nodes for music streaming, utilizing blockchain technology and a decentralized file system called AudSP. These nodes ensure both content distribution and music discovery while providing rewards to artists and node operators through AUDIO tokens. Furthermore, AUDIO token holders participate in the platform's governance, contributing to decisions shaping its future trajectory.

The platform's native cryptocurrency token, AUDIO, plays a pivotal role in compensating artists for their streamed content. By having a stake in AUDIO, holders can run nodes, gaining a

share of network fees and enhancing content discoverability. Additionally, AUDIO is used by artists to unlock gamified badges and influence the Audius governance protocol through voting rights. Hagiwara and Wright (2022) highlight that, after 15 months of its initial launch, Audius had not encountered a single on-chain proposal with both supporting and opposing votes, emphasizing the cohesive nature of its decentralized governance structure.

On the opposite end of the spectrum, we place situations in which the extent of platform specific investments by the participants is low. In both Scenarios 3 and 4 the investments done by participants are fungible in the sense that the investment, or assets in place, can be easily redeployed elsewhere (Jacobides, Cennamo and Gawer, 2018). Therefore the platform is more likely to attract participants without decentralizing decision making because participants are not afraid of potential holdup situations

Scenario 4 characterized by low platform-specific investments and high heterogeneity among participants, leading to a context where centralized governance holds a distinct advantage. A prime illustration of this scenario can be observed in the operations of a mass merchandise chain, such as Walmart and Amazon. In this case, the value of platform-specific investment required from participants, such as suppliers, is relatively low. Suppliers are not obligated to make substantial commitments to the platform in order to participate. Furthermore, the suppliers themselves exhibit significant heterogeneity due to the diverse range of product categories offered by the mass merchandizer. Factors such as product shelf life, brand image, prices, and durability contribute to the substantial variation among suppliers.

In such a complex environment, a centralized governance structure proves advantageous. Centralized decision-making allows for efficient coordination and management of the diverse array of suppliers and product categories. With the ability to set standardized processes and

guidelines, a centralized approach can better navigate the conflicts and challenges arising from the heterogeneity among suppliers. It enables the mass merchandizer to optimize its operations and ensure consistency across various product offerings. For instance, Walmart, as a centralized entity, excels in effectively managing its supplier relationships and streamlining its vast inventory, making it a prominent example of centralized governance within this context. By recognizing the dynamics between platform-specific investments, participant heterogeneity, and governance structures, organizations operating as mass merchandise chains or similar industries can leverage the advantages of centralized governance to drive operational efficiency and overcome the challenges associated with diverse participant interests.

Scenario 3 represents a case characterized by both low benefits and low costs associated with decentralized governance. In this scenario, since the investments made by participants are fungible, the absence of platform-specific investments diminishes the advantages of open governance. Efficient coordination can be achieved through arm's length transactions within a centralized governance framework, as hold-up considerations are less of an issue. Simultaneously, participant homogeneity mitigates the potential costs of decentralized solutions. In this situation, adopting decentralized governance offers no additional advantages, and if adopted, its costs would also be lower.

A notable example that aligns with this scenario is Netflix. In the case of Netflix, the main participants - content producers - exhibit a high degree of homogeneity. However, the level of specificity required in tailoring content to Netflix or any other streaming platform, such as Disney Plus or Amazon Prime, is minimal. Consequently, the advantages of adopting a centralized governance structure are neither significantly enhanced nor diminished when compared to a more decentralized approach.

Within this scenario, a centralized governance model can efficiently handle the operations and coordination necessary for content acquisition and distribution. The absence of platform-specific investments and the relatively homogeneous nature of participants contribute to a streamlined process that can be effectively managed in a centralized manner. The content producers, representing the main participants, share similar interests and requirements, and the content itself can be distributed across multiple platforms with minimal customization. As a result, the benefits of decentralization are relatively low, making a centralized approach a viable choice for Netflix's competitive advantage. However, the fact that the costs of decentralization are also low suggests that if Netflix opted for a decentralized governance approach, it would not suffer for an increase in governance costs as a result.

Finally, **Scenario 2** presents an intriguing case where there is a significant heterogeneity among participants, leading to potential conflicts in a decentralized governance setting. However, simultaneously, there exists a higher value for decentralization as a commitment device due to substantial platform-specific investments. This situation calls for a hybrid approach, where the platform decentralizes certain dimensions while centralizing others. A prominent example that aligns with this scenario is social media platforms. In the realm of social media, participants are inclined to invest their time and effort in platform-specific activities, such as building a profile and growing their audience. Nevertheless, challenges arise when it comes to content moderation, as the diverse range of participants holds varied opinions and interests. This multiplicity of perspectives can result in significant conflicts, necessitating careful governance considerations.

In this situation, the ideal solution lies in striking a balance between centralization and decentralization. By centralizing certain aspects of governance, such as content moderation policies, the platform can establish a hierarchical decision-making structure to address conflicts

and ensure a cohesive user experience. At the same time, decentralizing other aspects, such as platform monetization, empowers participants to independently derive benefits from their platform-specific investments, reducing their reliance on a central authority. Minds, a social media platform, serves as a prime example of this mixed decentralized approach. Minds is a social networking platform that helps users to post videos, blogs, images, statuses, messages, and video chats securely with groups or directly with friends. The platform rewards its users with crypto tokens for their contributions to the network. Users can utilize these tokens to upgrade their channel, boost their content for more reach and support other creators. The company has opted to centralize content moderation policies, allowing hierarchical decision-making to shape rules and guidelines. However, they have embraced full decentralization in platform monetization, enabling participants to profit from their individual platform-specific investments without the need for a central authority.

DISCUSSION

Drawing on insights from the institutional and demand-side perspectives, we investigate the cost/benefit effects of (de)centralization of the platform's governance and examine the boundary conditions that help to contextualize the basic theoretical relationship we predict. Our arguments indicate, from a demand-side perspective, that when investors are also (prospective) customers of the platform to which they contribute, the concentration of decision-making power at the top may be more valued when it can avoid the perceived coordination issues and inaction of decentralized governance modes in the eyes of prospective investors/customers. However, the effects of centralization are contingent on the platform's internal characteristics such as the participants' heterogeneity and the extent of their platform-specific investment.

We also provide a new perspective regarding the demand-side governance theory by focusing on how governance constellations impact the longer-term sustainability of the platform, an issue little explored in the contemporary governance research (Krause et al., 2016, 2021; Priem, 2007). Our research indicates that, from the demand-side perspective, the governance configurations that contribute to a collective wealth generation may command higher value among the platform network members, even if this contrasts with agency theory prescriptions for investors' wealth protection. Specifically, we suggest that specific governance modes can enhance the platform's value-creating perceptions among investors/customers because such systems can facilitate the speed of decision making and bring clarity with respect to who is responsible for execution of a valuable product/service that meets the very diverse demands from the current and prospective participants. More importantly, there is no universally accepted governance solutions to the platform's actual or hypothetical decision-making problems as the deploy a range of governance mechanisms depending on contingencies associated with the participants' diversity and their platform-specific investments.

This brings us to an important question related to necessary governance changes as the platform evolves. Prior research on the life-cycle of corporate governance (see Filatotchev, Toms and Wright, 2006, for an overview) integrates the strategic dynamics of the organization with changes in its governance systems. It rejects the notion of a universal governance template and argues that corporate governance parameters may be linked to strategic "thresholds" in the organization's life-cycle. This research stream in corporate governance field links organizational strategic dynamics with changes in balance between governance functions, such as monitoring, resource and legitimacy aspect of governance. More specifically, it argues that changes in an organization's strategic positioning may be associated with re-balancing between the wealth-protection and wealth-creation functions of governance. Unlike prior agency-grounded research

with its focus on wealth protection (monitoring) roles of governance, this perspective moves the analysis on by examining how corporate governance may help the organization to overcome its strategic thresholds, as well as possibilities to create significant barriers to its development.

The CG life cycle perspective has direct implications for our discussion of decision-making mechanisms in platforms. For example, the recent LRP paper by Gawer (2022) points out that digital platforms constantly make strategic decisions over three distinct types of interrelated boundaries: (1) the scope of the platform firm (what assets are owned, what labor is employed, and what activities are performed by the firm), (2) the configuration and composition of the platform's sides (which distinct groups of customers have access to the platform), and (3) the digital interfaces (that specify the 2-way exchange of data between the platform firm and each of its sides). This argumentation suggests that the platform's strategic evolution may be accompanied by an increase/reduction in participant diversity and the extent of their platform-specific investments. Therefore, and according to our discussion above, these changes in the two contingencies may require adjustments in the extent of (de)centralization in the platform's governance mechanism.

Let us consider as an example Phillips' HealthSuite platform that has been recently developed by Phillips after its strategic move into the healthcare market. In this ecosystem, Phillips is playing a role of orchestrator, while technology is powered by Amazon Web Services. Partner organizations include Cognizant, US-based university hospitals and a wide range of complementors, such as apps developers, manufacturers of wearable devices, insurers and medical specialists. To date, more than 100 types of medical devices have been integrated into HealthSuite, with over 145 billion clinical images securely archived on the cloud platform.³ So

³ [Phillips and Cognizant collaborate in digital health - News | Philips](#)

far, Phillips is in the centre of the platform's decision-making mechanism. However, its strategic intent is to develop an integrated, modular set of standards-based capabilities that support the development of digital health propositions, including secure storage of critical healthcare data; advanced data analytics and AI capabilities; industry-leading interoperability, connectivity and regulatory compliance. This may require an inclusion of new specialized platform participants able to make platform-specific investments. Indeed, recently Phillips joined forces with Salesforce.com to develop a new digital platform that they hope will transform healthcare. Salesforce.com, Inc. is an American cloud-based software company that provides customer relationship management (CRM) service and also provides a complementary suite of enterprise applications focused on customer service, marketing automation, analytics, and application development. As a number of powerful participants with very different strategic profiles increases, Philips HealthSuite platform may evolve towards less centralized and more open mode of corporate governance, similar to what we described in Table 1.

In terms of future research directions, we have made a strong case of why there cannot be a one size fits all governance approach. Future research should aim to identify further contingencies, both firm specific and industry specific, that may be driving the relative efficiency of distinct governance approaches. Moreover, our arguments suggest that there is a need for more research that examines the process by which platforms change their governance mechanisms as they pass through stages of their life-cycle. Such research should also move away from the purely agency-based monitoring functions of corporate governance and focus on the role of social norms and standards in platform governance. Possible research questions may include: How can platform developers design governance modes that are aligned with changes in social norms and standards? What is the right governance mode at early stages versus late stages

in the platform life cycle? Should platform governance changes be based on top-down or bottom-up mechanisms? Research on the life-cycle of corporate governance also suggests that governance arrangements may become a barrier for strategic change when “legacy governance” is ill suited with steering the organization through its strategic thresholds or challenges. We mentioned above the case of the Ethereum blockchain platform where decentralized governance created a barrier for an effective and timely response for a hacker attack.

TradeLens is another example of the importance of governance for platform success. TradeLens, was collaborative shipping platform developed by Maersk and IBM, aimed to improve information sharing through a permissioned blockchain ledger. By 2018, it involved 94 participants and 20 port operators, but faced reluctance to join from competitors due to Maersk's centralized control of the platform. The top management team of TradeLens were Maersk employees. In particular Maersk fully owned a subsidiary called GDPSolution whose CEO was at the same time TradeLens CEO. The centralized governance model led to limited industry participation, and no Asian/Chinese shipping companies have joined. The project closed in 2019, citing insufficient global collaboration and a lack of commercial viability, prompting suggestions that a more open governance approach could have improved its chances of success. Therefore, future research needs to explore the role of platform governance in promoting collaborative innovation: How can we design platforms that encourage rather than impede innovation and entrepreneurship? How can we ensure that the benefits of innovation are shared broadly rather than concentrated in the hands of a few?

Finally, a necessity in changes in the platform's governance may be associated with sudden regulatory challenges. For example, in October 2022 shares in some of the world's largest "gig" economy companies have fallen after the US government outlined a plan to change the way

workers are treated. Under the US Department of Labor proposal, workers would be more likely to be classified as employees instead of independent contractors. Shares in firms including Uber and Lyft fell by more than 10% on the news. US Labor Secretary Marty Walsh said that “the rule would aim to stop companies from misclassifying workers as independent contractors”.⁴ If platforms’ participants are to gain status of employees, this may require formal, more centralized governance arrangements to manage labour relations. In this vein, Gawer (2022) argues that strategic thresholds between the launch and maturity phases and their associated governance changes are important for regulators and policy-makers who are trying to establish how to determine the criteria from which platforms should be subject to increased specific *ex-ante* and *ex post* regulation. Future research may address the following questions: What role can regulators play in promoting socially responsible platform behavior? How can they prevent platforms from abusing their market power to stifle competition? What role should antitrust law play in regulating the behavior of dominant platforms?

CONCLUSION

To conclude, our theoretical discussion suggests that the choice of a specific mode of platform governance is far from being random, and it is based on the strategic dynamics of the platform. This dynamics is accompanied by changes in the platform’s core governance system, rejecting, therefore, the notion of a universal governance template. The platform’s evolution from the creation to maturity is associated with changes in the diversity of its participants as well as the extent of their platform-specific investment, and a right mix of governance functions may help the platform to overcome strategic thresholds identified in prior studies.

⁴ <https://www.bbc.co.uk/news/business-63224297>

References

- Aguilera R., Filatotchev I., Jackson G., Gospel H., 2008. An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities, *Organization Science*, 19(3), pp.475-492.
- Adner, R., 2017. Ecosystem as structure: An actionable construct for strategy. *Journal of Management*, 43(1), pp.39-58.
- Bell G., Filatotchev I., Aguilera R., 2014. Corporate governance and investors' perceptions of foreign IPO value: An institutional perspective, *Academy of Management Journal*, 57(1), pp. 301-320.
- Cennamo, C., 2021. Competing in digital markets: A platform-based perspective. *Academy of Management Perspectives*, 35(2), 265-291.
- Cennamo, C., Santalo, J., 2013. Platform competition: Strategic trade-offs in platform markets. *Strategic Management Journal*, 34(11), 1331-1350.
- Chen, Y., Pereira, I., Patel, P. C., 2021. Decentralized governance of digital platforms. *Journal of Management*, 47(5), 1305-1337.
- Chen, L., Tong, T.W., Tang, S. and Han, N., 2022. Governance and design of digital platforms: A review and future research directions on a meta-organization. *Journal of Management*, 48(1): 147-184.
- Chod, J., Trichakis, N., Yang S. A., 2022. Platform tokenization: Financing, governance, and moral hazard. *Management Science* 68(9). <https://doi.org/10.1287/mnsc.2021.4225>.
- Cong, L. W., Li, Y., Wang, N., 2021. Tokenomics: Dynamic adoption and valuation. *The Review of Financial Studies*, 34(3), 1105-1155.
- Constantinides, P., Henfridsson, O., Parker, G. G., 2018. Introduction—platforms and infrastructures in the digital age. *Information Systems Research*, 29(2), 381-400.
- Fan, T., Schwab, A., Geng, X., 2021. Habitual entrepreneurship in digital platform ecosystems: A time-contingent model of learning from prior software project experiences. *Journal of Business Venturing*, 36(5), 106140.
- Fahlenbrach, R., Frattaroli, M. 2021. ICO investors. *Financial Markets and Portfolio Management*, 35:1–59.
- Filatotchev I, Lanzolla G. 2023. “Open-source corporate governance” in the era of digital transformation”, in Cennamo C, Dagnino G and Zhu F (eds) “*Elgar Handbook of Research on Digital Strategy*”, London, New York: Edward Elgar.
- Filatotchev I, Toms S, Wright M. 2006. “The firm’s strategic dynamics and corporate governance life-cycle”, *International Journal of Managerial Finance*, 2(4), 256-279.
- Fisch, C., Masiak, C., Vismara, S., Block, J., 2021. Motives and profiles of ICO investors. *Journal of Business Research*, 125, 564-576.
- Gawer, A. 2022. Digital Platforms’ Boundaries: The Interplay of Firm Scope, Platform Sides, and Digital Interfaces. *Long Range Planning*, 55(5), 1-22.
- Hagiu A, Wright J. 2020. Creating platforms by hosting rivals. *Management Science*, 66 (7):3234-3248

- Hagi A. , Wright J. 2022. Should platforms be allowed to sell on their own marketplaces? *RAND J. Econ.* 53(2):297–327.
- Hartwell, C.A., Lawton, T.C., Tingbani, I. 2024. Obstacles to collective action during a crisis: A meta-organizational perspective. *European Management Review*, <https://doi.org/10.1111/emre.12596>
- Howell, S. T., Niessner, M., Yermack, D., 2020. Initial coin offerings: Financing growth with cryptocurrency token sales. *The Review of Financial Studies*, 33(9), 3925-3974.
- Hsieh, Y. Y., Vergne, J. P., 2023. The future of the web? The coordination and early-stage growth of decentralized platforms. *Strategic Management Journal*, 44(3), 829-857.
- Jacobides, M. G., Cennamo, C., Gawer, A., 2018. Towards a theory of ecosystems. *Strategic Management Journal*, 39(8), 2255-2276.
- Jentzsch, C., 2016, August 24. The History of the DAO and Lessons Learned. Retrieved from: <https://blog.slock.it/the-history-of-the-dao-and-lessons-learned-d06740f8cfa5> (Last accessed: December 22nd, 2022).
- Krause, R., Chen, J., Bruton, G. D., Filatotchev, I., 2021. Chief executive officer power and initial public offering underpricing: Examining the influence of demand-side cultural power distance. *Global Strategy Journal*, 11(4), 686-708.
- Krause, R., Filatotchev, I., Bruton, G. D., 2016. When in Rome, look like Caesar? Investigating the link between demand-side cultural power distance and CEO power. *Academy of Management Journal*, 59(4), 1361-1384.
- Kyprianou C. 2018. Creating value from the outside in or the inside out: How nascent intermediaries build peer-to-peer marketplaces. *Academy of Management Discoveries*, 4: 336-370.
- Lumineau, F., Wang, W., Schilke, O., 2021. Blockchain governance—A new way of organizing collaborations?. *Organization Science*, 32(2), 500-521.
- Momtaz, P. P., 2021. Initial coin offerings, asymmetric information, and loyal CEOs. *Small Business Economics*, 57(2), 975-997.
- Murray, A., Kuban, S., Josefy, M., Anderson, J., 2021. Contracting in the smart era: The implications of blockchain and decentralized autonomous organizations for contracting and corporate governance. *Academy of Management Perspectives*, 35(4), 622-641.
- O'Mahony, S. , Karp, R., 2022. From proprietary to collective governance: How do platform participation strategies evolve?. *Strategic Management Journal*, 43(3), pp.530-562.
- Ondrus, J., Gannamaneni, A., Lyytinen, K., 2015. The impact of openness on the market potential of multi-sided platforms: A case study of mobile payment platforms. *Journal of Information Technology*, 30(3), 260-275.
- Schmeiss, J., Hoelzle, K., Tech, R. P., 2019. Designing governance mechanisms in platform ecosystems: Addressing the paradox of openness through blockchain technology. *California Management Review*, 62(1), 121-143.
- Shleifer, A., Vishny, R. W., 1997. A survey of corporate governance. *The Journal of Finance*, 52(2), 737-783.
- Sockin, M., Xiong, W., 2023. Decentralization through tokenization. *The Journal of Finance*, 78(1), pp.247-299.

- Thomas, L. D., Ritala, P., 2022. Ecosystem legitimacy emergence: A collective action view. *Journal of Management*, 48(3), 515-541.
- Vergne J. P. (2020). Decentralized vs. distributed organization: Blockchain, machine learning and the future of the digital platform. *Organization Theory*, 1(4): 1-26.
- Wareham, J., Fox, P. B., Cano Giner, J. L., 2014. Technology ecosystem governance. *Organization Science*, 25(4), 1195-1215.
- Zahra, S. A., Nambisan, S. 2012. Entrepreneurship and strategic thinking in business ecosystems. *Business Horizons*, 55(3), 219–229.
- Zhang, Y., Li, J., Tong, T. W., 2022. Platform governance matters: How platform gatekeeping affects knowledge sharing among complementors. *Strategic Management Journal*, 43(3), 599-626.

Table 1. Centralized vs Open Source Governance Mechanisms and Their Underlying Governance Practices

Governance Factors	Autocracy Governance	Open-Source Governance
<i>Governance mode</i>	High centralization	Decentralized (broader participant involvement)
<i>Relationships with external participants</i>	“Investor supremacy”	Formal consideration of participants’ interests in setting goals and identifying risks; Participant involvement in CG
<i>CG objectives</i>	- Maximization of platform’s monetary value	- Longer-term sustainability; - Organizational value creation for participants
<i>Accountability and reporting</i>	Centralized systems of accountability and communications	- Non-hierarchical systems of communications; - Accountability to external constituencies;
<i>Risk management and control</i>	- Risks are mainly related to financial and economic factors.	- Risks include a wide range of economic and social factors, including organizational legitimacy
<i>Efficiency trade-offs</i>	- Potential abuse of centralized power; - Lack of loyalty and trust	- Complexity of decision making; - Conflicts among the participants

Table 2. Contingency Scenarios of Platform Governance

Scenario	Platform Specific Investment	Participant Heterogeneity	Governance mode	Example
1	High	Low	Decentralized (open) Governance	Indie Music Distribution
2	High	High	Hybrid Governance	Minds Social Network
3	Low	Low	Arm-length transactions, market solutions leaning towards centralization	Netflix
4	Low	High	Centralized (autocracy) Governance	Mass merchandize chains