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Elizabeth J. Altman
Michael L. Tushman

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Elizabeth J. Altman
University of Massachusetts Lowell

Michael L. Tushman
Harvard Business School

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Elizabeth J. Altman
Manning School of Business
University of Massachusetts Lowell

Michael L. Tushman
Harvard Business School

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ABSTRACT

Platform, open/user innovation, and ecosystem strategies embrace and enable interactions with external entities. Firms pursuing these approaches conduct business and interact with environments differently than those pursuing traditional closed strategies. This paper considers these strategies together highlighting similarities and differences between platform, open/user innovation, and ecosystem strategies. We focus on managerial and organizational challenges for organizations pursuing these strategies and identify four institutional logic shifts associated with these strategic transitions: 1) increasing external focus, 2) moving to greater openness, 3) focusing on enabling interactions, and 4) adopting interaction-centric metrics. As mature incumbent organizations adopt these strategies, there may be tensions and multiple conflicting institutional logics. Additionally, we consider four strategic leadership topics and how they relate to platform, open/user innovation, and ecosystem strategies: 1) executive orientation and experience, 2) top management teams, 3) board-management relations, and 4) executive compensation. We discuss theoretical implications, and consider future directions and research opportunities.

Keywords
Platforms, open/user innovation, ecosystems, crowdsourcing, institutional logics, strategic leadership, top management teams, CEO role

Business strategies that embrace and enable external entities are changing the way firms conduct business and interact with the world around them. By strategically engaging with and facilitating interactions between external entities, Uber transformed our conception of transportation, Airbnb changed how we book travel lodging, Ticketmaster allowed fans to sell excess tickets to other fans, LEGO encouraged its most avid fans to design new product offerings, and Wikipedia became our primary source for encyclopedic knowledge. Platforms, open/user innovation, and ecosystems are business strategies that incorporate organizations interacting with, and enabling, external individuals, organizations, and communities to create value through interactions.[1, 2] As organizations that adopt these concepts grow in profitability and impact, the notions of openness (Boudreau, 2010), engagement, interdependence (Kleinbaum & Tushman, 2007; Thompson, 1967), and co-opetition (Brandenburger & Nalebuff, 1996) gain in importance. Further, these approaches frequently lead to tensions within organizations. This is especially true for mature incumbent organizations as they transition to new approaches and execute hybrid strategies with multiple, sometimes conflicting, institutional logics (Friedland & Alford, 1991; Lounsbury, 2007). These transitions lead to firms simultaneously managing traditional closed ways of conducting business while also implementing open, externally focused approaches. With the rising prominence of platform, open/user innovation, and ecosystem strategies and the challenges

[1] We use the term "open/user innovation" throughout this chapter to represent the family of strategies that include and are sometimes referred to as: open innovation, user innovation, crowdsourcing, collective intelligence, and so forth. While these vary along some dimensions, all involve organizations reaching outside boundaries to interact with, and benefit from, external individuals or groups. Frequently, these interactions involve organizations gathering inputs, possibly for free, to improve product or service offerings.

[2] We refer to platforms, open/user innovation, and ecosystems throughout this chapter as business strategies. Some scholars might prefer to call them business models. We chose to refer to them as strategies because we believe they reflect an integrated set of choices made by an organization to competitively position a firm, which is a commonly accepted strategy definition (Hambrick & Frederickson, 2001). See also Casadesus-Masanell and Ricart (2010) for a further discussion of strategies versus business models.

they present, these topics are increasing in importance in management, strategy, and organizational research domains.

While many of these business strategies have existed for a long time (some scholars cite the village matchmaker as an original platform) (Caillaud & Jullien, 2003; Evans, 2003), digital technologies' increasing capabilities are fueling their rapid growth. The digital economy relies on platforms, open/user innovation, and ecosystems to power many of the world's most profitable enterprises. Information gathering and interchange, frictionless value exchange, and network effects (Afuah, 2013; Katz & Shapiro, 1994) are key components in these businesses. Dramatically decreasing information storage, processing, and communication costs, reducing information constraints, continue to catalyze growth in these areas (Altman, Nagle, & Tushman, 2015; Brynjolfsson & McAfee, 2014).

Some firms like Uber and Airbnb are pure-plays, relying entirely on a platform matchmaking strategy (Evans & Schmalensee, 2016). Other organizations execute hybrid strategies as they continue to run more traditional business while also introducing one or more platform-based businesses, such as Amazon selling goods in a typical reseller model while also allowing others to sell through its Marketplace offering (Hagiu & Wright, 2015a). Some firms started as product businesses and have transitioned to new strategies incorporating platforms, open/user innovation, and ecosystems in subsets of their businesses. One example is Intuit with their QuickBooks accounting software for small and medium-sized businesses. QuickBooks was originally a standalone computer software product, but now resides on the web (a.k.a., "in the cloud") and allows firms to create and sell apps that extend its functionality. In February 2007, Dell, a traditional technology provider, launched the IdeaStorm website to tap innovative ideas from its customers. As of August 2016, Dell reports there have been approximately 25,000 ideas

submitted, 744,000 votes on these ideas, 101,000 comments, and 550 ideas implemented demonstrating considerable user engagement in both innovation and selection processes.[3]

In research focusing on platforms, open/user innovation, and ecosystems, usually one of these concepts is the primary paper focus and the others are mentioned tangentially, if at all. Each strategy is important and complex enough in its own right, and distinct enough along particular dimensions, that it supports its own research stream usually considering strategic benefits along with challenges. Individually, these topics have driven separate but related intra- and inter-disciplinary burgeoning research paths. This paper considers these topics together. We explore what we can learn by looking at how all three strategies include organizations engaging with and leveraging external parties to accomplish their goals. Looking at the strategies together, we not only recognize benefits they bring, but also consider challenges they raise as organizations increasingly juggle multiple and competing institutional logics.

We look at similarities between platform, open/user innovation, and ecosystem strategies, particularly as mature incumbent organizations transition their existing businesses to embrace these strategies. We focus our discussion on managerial and organizational challenges, such as strategic leadership, because as organizations transition to these strategies, leaders and top management teams confront novel challenges arising from newly emerging tensions and conflicting institutional logics. We first address the question: What are similarities and differences between platform, open/user innovation, and ecosystem strategies? We then discuss institutional logic shifts in mature incumbent organizations as they transition to platform, open/user innovation, and ecosystem strategies, and explore strategic leadership in the context of these institutional logic shifts. We then explore the questions: What are strategic leadership

[3] According to Dell's IdeaStorm website, accessed on 18 August 2016: http://www.ideastorm.com/idea2Home?v=1471508804815

challenges associated with platform, open/user innovation, and ecosystem strategies, particularly in the context of incumbent transitions and hybrid businesses management? How do these challenges differ from those in traditional closed (non-platform and non-ecosystem) organizations? We continue by discussing theoretical implications, and conclude considering future directions and research opportunities.

PLATFORMS, OPEN/USER INNOVATION, AND ECOSYSTEMS

Similarities between platforms, open/user innovation, and ecosystems

Platforms, open/user innovation, and ecosystems represent three closely-related (and sometimes overlapping) strategies that embrace and enable external entities to create and capture value. All three strategies describe phenomena where organizations interact with and derive value from entities outside their boundaries. All three bring forth opportunities and challenges related to openness, engagement, interdependence, and co-opetition as they revolve around interactions between organizations and parties outside their boundaries. When considering innovation activities, all these concepts address challenges associated with the locus of innovation moving outside the organization (Lakhani, Lifshitz-Assaf, & Tushman, 2013; Powell, Koput, & Smith-Doerr, 1996), and in many cases firms building and nurturing external communities (Altman, Nagle, & Tushman, 2015; Dahlander & Frederiksen, 2012). In contrast to organizations engaging in supplier networks, supply chain management, complex strategic alliances, joint ventures, mergers and acquisitions (M&A), etc., which tend to be highly transactional and contract-bound in nature, and generally aimed at addressing specific problems, these strategies involve organizations building and managing large complementor communities offering products and services that enhance the focal organization's offerings. As Benkler (2006) outlines,

organizations are moving to more distributed and networked forms with associated open institutional logics, which contrast with historically traditional, Chandlerian (1977) internally-focused, hierarchical organizations.

Platform, open/user innovation, and ecosystem strategies include business networks that frequently incorporate a core organization interacting to various degrees with external entities (Gawer & Cusumano, 2014). For instance, platform-based businesses facilitate transactions between external producers and consumers (Parker, Van Alstyne, & Choudary, 2016; Rochet & Tirole, 2003; Zhu & Iansiti, 2012). Uber, a pure-play platform business, connects drivers and riders. Amazon Marketplace, one of Amazon's many businesses (and thus part of a hybrid organization), facilitates transactions connecting sellers with buyers.

Ecosystems organize and leverage external entities, which are frequently complementors and have interdependencies between them (Adner & Kapoor, 2010; see Adner, Oxley, & Silverman, 2013 for a volume with various perspectives on ecosystem research). Within the world of ecosystems, there are some associated with platform businesses that have a central orchestrator, such as a platform manager (Evans, Hagiu, & Schmalensee, 2006; Teece, 2007) like Apple, orchestrating an app developer ecosystem.[4] There are also more decentralized, self-organizing, ecosystems like in wireless gaming (Ozcan & Eisenhardt, 2009) and the U.S. residential solar industry (Hannah & Eisenhardt, 2016) that operate without a core manager (Bremner, Eisenhardt, & Hannah, 2016) and independent of platform businesses. Open/user innovation (Baldwin & von Hippel, 2011; Bogers, et al, 2017; von Hippel, 1986; West, Salter, Vanhaverbeke, & Chesbrough, 2014), crowdsourcing (Afuah & Tucci, 2012; Howe, 2008), and open source software (Foss, Frederiksen, & Rullani, 2015; O'Mahony & Bechky, 2008; von

[4] We note that scholars have previously used the term "platform leader" when referring to firms leading platform-based ecosystems (Gawer & Cusumano, 2002), which has similar usage to that of "platform manager."

Hippel & von Krogh, 2003), also harness external parties to create value. These strategies derive benefits from users and others that innovate, select, produce, and perform roles externally that conventionally have been accomplished by core firm functions and employees (Baldwin, Hienerth, & von Hippel, 2006; Felin & Zenger, 2014; von Hippel, 2005).

In most instances, cross-side network effects, where participants on one side of a platform benefit when more participants join the other side, play a crucial role in platform and ecosystem businesses (Katz & Shapiro, 1994; Zhu & Iansiti, 2012). Network effects accelerate businesses like Uber where the more riders that use the service, the higher the volume of drivers encouraged to participate, and vice versa.[5] Organizations employing platform, open/user innovation, and ecosystem strategies leverage dramatically decreasing information costs to engage with and manage external communities (Altman, Nagle, & Tushman, 2015).

Differences between platforms, open/user innovation, and ecosystems

Figure 1 provides graphic example structure schematics for each strategy. These diagrams help clarify and provide visual guidance for how these three business strategies differ in their structures and interactions.[6]

Insert Figure 1 about here

Figure 1a. depicts an example platform strategy structure (Cennamo & Santalo, 2013; Parker & Van Alstyne, 2005; Rochet & Tirole, 2003). While there are a number of platform-based business definitions in the literature, and debate continues about exactly what should be

[5] This is a simplified network effects definition. For a more thorough treatment outlining both positive and negative, same and cross-side network effects, and a good basic definition of how they impact platform businesses see Parker, Van Alstyne, and Choudary (2016).
[6] Each graphic depicts one example strategy version, though there clearly are other variants.

considered a multi-sided platform (MSP), we adopt the clarifying definition put forth by Hagiu and Wright (2015b) that an MSP enables direct interactions between two or more distinct sides and each side is affiliated with the platform.[7],[8] In the case depicted in Figure 1a., there is a central orchestrating organization enabling transactions between two sides of the platform. The diagram depicts a two-sided platform, or network, but could easily be extended to represent increasingly prevalent multi-sided platform structures where there are more than two participant groups interacting with the platform (Thomas, Autio, & Gann, 2014).[9] In platform strategies, while the primary transactions are ones between sides facilitated by the platform business, there are also affiliate relationships between platform businesses and the sides. For example, on dating websites, the primary interactions are between members looking for mates. However, each member also signs up for an account (either free or paid), so has an affiliate relationship with the platform. In this example diagram, each side of the platform has an affiliation with the platform business depicted by a dashed arrow. The two platform sides interact or transact directly with each other, depicted by a solid line arrow.

Figure 1b. illustrates an open/user innovation strategy structure example (Chesbrough & Appleyard, 2007; Harhoff, Lakhani, & Thomke, 2016; also see Bogers, et al., 2017 for an expanded research overview on open/user innovation). In this structure, there is a core organization coordinating activities and benefitting from inputs (innovations) from community or

[7] We use the term "platform" throughout this chapter as shorthand, though technically we are usually referring to multi-sided platform-based businesses.
[8] Hagiu and Wright (2015b) define "direct interactions" as two or more sides of a platform retaining control over key terms of an interaction rather than an intermediary taking control. They define "affiliation" as users on each side consciously making platform-specific investments necessary to directly interact with each other. They note these investments could be a fixed access fee like buying a videogame console, or an expenditure of time or money such as learning how to develop apps for a particular operating system. We adopt these same definitions.
[9] Multi-sided platforms often appear in advertising-supported businesses where the primary interaction is between a producer (e.g., a video creator on YouTube) and a consumer (e.g., someone watching YouTube videos) and also advertisers (a third platform side) that interacts with both producers and consumers on the website.

crowd members. The organization interacts directly with users (who may be avid fans or lead users), innovators (who may or may not use the product but benefit by contributing in some way), and designers (who again may or may not be users, but provide input to the core organization). These interactions are depicted by straight line arrows. One oft-noted example is the online t-shirt vendor, Threadless (Brabham, 2010; Langner & Seidel, 2015). Threadless has built and carefully manages multiple communities. Designers submit proposed artwork for printing on a shirt. Users vote on designs, so provide a ranking and quality control function. Consumers buy shirts (and other products such as printed water bottles) through the website or in brick-and-mortar retail outlets. In other examples, innovators provide additional input to an organization, such as software code. The organization may play a strong coordinating and managing role, yet most innovation and selection arises from external parties.

Figure 1c. represents an ecosystem strategy structure (Adner & Kapoor, 2010; Boudreau, 2012; Wareham, Fox, & Cano Giner, 2014). Ecosystem strategies contain structures and interactions between constituent participants (Iansiti & Levien, 2004; Moore, 1993). Ecosystem strategies can exist independently of platform and open/user innovation contexts when there is no central orchestrator, or platform manager, such as in the U.S. residential solar industry (Hannah & Eisenhardt, 2016). However, we recognize that there are overlaps between the three strategies presented in this paper; platform, open/user innovation, and ecosystem strategies are not mutually exclusive. In the business strategy context, ecosystems can be considered umbrella structures that encompass platform and open/user innovation strategies since organizations managing platform and open/user innovation strategies create and manage ecosystems. Platform strategies are a specific type of ecosystem strategy with a platform manager facilitating interactions between members. Open/user innovation strategies are also an ecosystem type

incorporating interactions between innovators, many of which reside outside organizational boundaries (e.g., in crowdsourcing and innovation contests).

In ecosystems without a firm operating as a platform manager or orchestrator, individual parties interact through various mechanisms. Some interactions are direct and bi-directional (e.g., a purchasing transaction with money and goods exchanged). Others may be uni-directional and indirect (e.g., a user registering for a free account on a website). Figure 1c. exemplifies a decentralized ecosystem with both direct and affiliate relationships depicted with solid and dashed line arrows respectively.

A generalized view of platforms, open/user innovation, and ecosystems

Scholars study a variety of topics related to platforms (Gawer & Cusumano, 2002; Hagiu & Wright, 2015a and 2015b; Van Alstyne, Parker, & Choudary, 2016), open/user innovation strategies (Baldwin & von Hippel, 2011; Chesbrough, 2007; West, Salter, Vanhaverbeke, & Chesbrough, 2014), and the more general construct of ecosystems (Brandenburger & Nalebuff, 1996; Iansiti & Levien, 2004; Kapoor & Lee, 2013), and many capture specific phenomena. For example, economists have studied standardization (Chiao, Lerner, & Tirole, 2007; Farrell & Saloner, 1985; Farrell & Simcoe, 2012), which is frequently related to interdependencies between organizations (Kapoor & Furr, 2015; Thompson, 1967), but does not usually capture strategy considerations. Similarly, modularity is an important concept that enables products and services to be broken into smaller pieces with standardized and open interfaces enabling and encouraging platform and ecosystem growth (Baldwin & Clark, 2000; Furlan, Cabigiousu, & Camuffo, 2014; Pil & Cohen, 2006). The burgeoning collective intelligence-related research area

spans disciplines such as economics, information science, policy, and management, yet places much less emphasis on platform-based interactions.[10]

In most of the aforementioned research, similarities between platforms, open/user innovation, and ecosystems may be acknowledged, but if mentioned at all, are considered of secondary importance to the paper's primary argument. We consider a more generalized view that allows us to look at relationships between these strategies, how they compare and contrast with each other, and challenges they pose for firms transitioning to them or adding them to an ongoing strategy. In studying these strategies, we take the perspective of the organization (e.g., a firm) or a subset thereof (e.g., a division) and consider that entity as our unit of analysis. In ecosystem and related research, scholars may consider the entire system or network as the unit of analysis, especially when investigating ecosystem competition. However, we focus on the single organization (e.g., core platform orchestrator, incumbent firm transitioning to a platform strategy, complementor, or other ecosystem participant) because we consider the strategic and organizational challenges faced by each of these entities as it grapples with shifting institutional logics.

Platforms, open/user innovation, and ecosystem strategies all include interactions between organizations and parties external to the organization as essential to their success (Boudreau & Jeppesen, 2015; Cennamo & Santalo, 2013). In some cases, there is a dominant organization playing a coordinating or orchestrating role (e.g., Google, Apple, Facebook, etc.) (Parker, Van Alstyne, & Choudary, 2016; Zhu & Iansiti, 2012). In other cases, with more distributed structures, no such organization exists (Kornberger, 2016). Sizes of entities

[10] There is an annual Collective Intelligence Conference that gathers multi-disciplinary scholars to discuss these related topics. The 2016 link is here: https://sites.google.com/a/stern.nyu.edu/collective-intelligence-conference/

interacting in platform, open/user innovation, and ecosystem strategies vary (Gawer & Cusumano, 2014). In some instances, complementors to a platform business may be large multi-national firms (e.g., Sony) creating accessories (e.g., speakers) that work with a central platform business's products (e.g., Apple's). In other cases, participating entities may be individuals, sometimes referred to as crowd members (Afuah & Tucci, 2012; Howe, 2008; Kornberger, 2016) interacting with a website such as Threadless or LEGO Ideas submitting or ranking designs (Antorini, Muñiz, Jr., & Adkildsen, 2012). User innovation encompasses interactions generated by users (Baldwin, Hienerth & von Hippel, 2006; Jensen, Hienerth, & Lettl, 2014). In crowdsourcing (Howe, 2008) information comes from crowd members (sometimes users) outside an organization. In open innovation (Chesbrough, 2007; West, Salter, Vanhaverbeke, & Chesbrough, 2014) firms derive innovation from outside organizational boundaries through various mechanisms. Though definitions vary across scholars, crowdsourcing and user innovation may be considered specific open innovation cases. In platform, user/innovation, and ecosystem strategies, there are interactions between a focal organization and entities outside the organization's boundaries.

As we consider platform, open/user innovation, and ecosystem strategies, which all involve interactions with entities outside organizational boundaries, we recognize that not all firms interact with external parties during the same innovation phases to accomplish the same functions. Another way to further our understanding of these strategies and the relationships between them is by employing Darwinian evolutionary analogies (e.g., variation and selection), which other scholars have also applied to innovation in more traditional contexts (Campbell, 1960; O'Reilly III & Tushman, 2008; Staw, 1990; Tushman & O'Reilly III, 1996). We

recognize that in platforms, open/user innovation, and ecosystem strategies there are differences associated with how far sources of variation and selection reside outside the organization.

In Figure 2, we place a few platform, open/user innovation, and ecosystem strategy examples in a two-by-two matrix depicting where the *locus of variation* and *locus of selection* are centered. NASA is using online platforms to search for solutions to complex problems outside NASA (Lifshitz-Assaf, 2013). For these challenges, the *locus of variation* is firmly external as NASA casts a wide net allowing anyone to submit ideas. However, NASA engineers and scientists evaluate solutions, thus the *locus of selection* is primarily internal. In contrast, for nearly 10 years, Frito-Lay's Doritos brand has sourced TV ads by orchestrating an online competition where filmmakers submit ads (Jones, 2009). Doritos management participates in the selection process, yet a primary and popular part of the process involves online open voting. Thus, the *locus of variation* is external and *the locus of selection* is also primarily external, though not entirely so since Doritos provides a curation function.

Insert Figure 2 about here

As incumbent firms contend with adopting platform, open/user innovation, and ecosystem strategies, we can consider their transitions in the context of Figure 2. Mature traditional firms organized in a Chandlerian (1977) closed structure are situated in the bottom left corner; their loci of variation and selection are internal. New entrants founded as open organizations often reside in the upper right quadrant; their loci of variation and selection are primarily external (e.g., Threadless). However, mature incumbent organizations adopting platform, open/user innovation, and ecosystem strategies are attempting to move from the bottom left to the upper right. As they do, they face competition entering from the upper right quadrant.

In sum, platform, open/user innovation, and ecosystem strategies share enough similarities that it is valuable to take a generalized view and consider them together. Especially as mature incumbent organizations begin to execute these approaches, we see organizational challenges common across strategies. These challenges exist both when incumbent organizations fully transition to new strategies, and also when they add new strategies and manage hybrid strategies presenting simultaneous multiple conflicting institutional logics. We turn now to explore incumbent organization transitions to platforms, open/user innovation, and ecosystem strategies, institutional logic shifts (Gawer & Phillips, 2013; Thornton, Ocasio, & Lounsbury, 2012), and strategic leadership challenges (Elenkov, Judge, & Wright, 2005; Finkelstein, Hambrick, & Cannella, Jr., 2009; Shrivastava & Nachman, 1989) associated with them.

INSTITUTIONAL LOGIC SHIFTS IN INCUMBENT FIRM TRANSITIONS

Entrepreneurial firms built on platform, open/user innovation, and ecosystem strategies from their inception face challenges associated with these strategies (Pitelis, 2012; Rindova, Yeow, Martins, & Faraj, 2012). Such business examples include Uber and Airbnb, which both started as platform businesses (Evans, 2016). However, while implementing platform, open/user innovation, and ecosystem strategies may present similar challenges between entrepreneurial firms and mature incumbent organizations, such as gaining adoption, many challenges are distinctly different for incumbent firms moving to these more open strategies. Incumbents have existing identity, cultures, norms, behaviors, assets, organizational structures, processes, etc. that they must modify as they adopt new strategies. Incumbents grapple with overcoming their historical context as they either modify prevailing strategies or add new ones.

Thornton and Ocasio (2008) integrate previous work on institutional logics (Friedland & Alford, 1991; Jackall, 1988) to propose an institutional logic definition that helps scholars

understand individual and organizational behavior in the context of social and institutional contexts. They define institutional logics as "the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality," (Thornton & Ocasio, 1999: 804). Ocasio, Loewenstein, and Nigam (2015: 28) more recently summarize the definition of institutional logics as "cultural structures that bring order to domains of practice." Both of these definitions provide us with a framework with which we can categorize the challenges encountered by incumbent organizations as they transition to platform, open/user innovation, and ecosystem strategies. While these organizations are undergoing shifts in their business strategies, they are also fundamentally shifting their beliefs about how they should interact with the external environment, modifying their cultures, and adopting practices consistent with these shifts.[11] Firms adopting these strategies are faced with challenges to their institutional logics (Gawer & Phillips, 2013). Transitioning and often managing dual (sometimes conflicting) strategies lead to institutional logic shifts (Glynn & Lounsbury, 2005) since they threaten existing norms, behaviors, capabilities, cognitive frames, and so on (Thornton, Ocasio, & Lounsbury, 2012).

Incumbent firms undergoing transitions to platform, open/user innovation, and ecosystem strategies experience challenges that affect the essence of how they operate. With greater dependence on organizations outside their boundaries, incumbents must pay more attention to external interactions (Pfeffer & Salancik, 1978; Wry, Cobb, & Aldrich, 2013). They must

[11] Smets, Morris, and Greenwood (2012) develop a model of institutional change within an organization considering interactions between institutional logics, organizations, and practices. For this paper, we remain consistent with Thornton & Ocasio's (1999) broad definition and characterize the shifts within the organizations as institutional logic shifts. We note that in future work we may be able to expand this framing and delve more deeply into micro-foundations exploring shifts further at a practice-level.

become more open to providing information about interfaces, upcoming product launches, etc., allowing complementors and others to build complementary products and services. Transitioning organizations may switch from a product or service focus to enabling others to transact with each other. For example, when Ticketmaster, a US-based concert and event ticket seller, began allowing fans to resell tickets, it had to consider how fans and ticket buyers would find each other and interact. Leaders must recognize that metrics they use to manage their organizations when they are product or service-based may not be appropriate for new strategies. In a context where transactions matter, measuring transaction-related performance might be more valuable than tracking revenues, market share, or other traditional performance indicators.

Considering the above challenges, we grouped the institutional logic shifts faced by incumbents during these transitions into four broad categories: 1) increasing external focus, 2) moving to greater openness, 3) focusing on enabling interactions, and 4) adopting interaction-centric metrics. Table 1 summarizes these shifts in organizations transitioning across platform, open/user innovation, and ecosystem strategies.

Insert Table 1 about here

Increasing external focus - An institutional logic shift for leaders and top management teams in organizations transitioning to platform, open/user innovation, and ecosystem strategies is increasing external focus across the organization. Though most organizations routinely interact with suppliers, customers, and other external organizations, in organizations embracing boundary spanning strategies such as platforms, open/user innovation, and ecosystems, a broader shift associated with considering the needs of a range of external parties and how to manage multiple types of interactions with them becomes integral to strategic success across the value chain. This shift affects an organization's culture, beliefs, activities, and so on.

In platform, open/user innovation, and ecosystem strategies, leaders look beyond internal functions to succeed. In research & development (R&D) and product development, where product and service innovations tend to be centered, leaders consider innovation sources beyond their boundaries, such as via innovation contests, open innovation, and other mechanisms. Across other value chain stages, leaders must look beyond internal boundaries to accomplish tasks via engaging with external communities (Kornberger, 2016). A specific example that illustrates this shift is modifications in the quality control function, which may encourage users to input customer rankings (e.g., number of stars) to evaluate products, such as the system employed by Amazon and other online retailers.

Because platform, open/user innovation, and ecosystem strategies often rely on complementors (Boudreau & Jeppesen, 2015; Kapoor & Furr, 2014; Kapoor & Lee, 2013), organizations need to learn the outwardly facing process of effectively engaging with and managing interactions with complementors. Many firms have developed competencies interacting with customers and suppliers, creating alliances and partnerships, and integrating acquisitions, yet fewer are skilled at complementor management.

Complementor interactions are not the same as those with customers, suppliers (e.g., in supplier networks), and partners primarily because they do not include the same contractual interaction intensity. For platform, open/user innovation, and ecosystem strategies, incumbent organizations and their leadership need to change to managing external communities that they may engage through standardized agreements or not in any formal way whatsoever (Yoffie & Kwak, 2006). While seemingly only subtly dissimilar, creating, building, and nurturing these relationships differs from managing alliances and partnerships, which tend to be contract-bound, interdependent, and customized (Gulati, 1998). Less formalized complementor relationships

involve substantial trust-building, persuasion, shared vision and goal generation, which requires the organization to consider outward communications in new ways. For organizations and their leadership undergoing these transitions, this change to a more external focus may be helped or hindered by an organization's existing identity (Altman & Tripsas, 2015; Elsbach & Kramer, 1996). Increasing external focus can be thought of as a process-centric transition moving the organization from thinking primarily about resources inside to those outside organizational boundaries.

Moving to greater openness – While increasing external focus requires more outwardly facing cultural change, considerations, and activities, another institutional logic shift, a move to greater openness, implies a move to an increased willingness to accept inputs from the outside. As the aforementioned increase in external focus requires understanding what is beyond the organization's boundaries, a move to greater openness requires shifts in culture, beliefs, and internal processes to accept and integrate external inputs. This shift is associated with letting external parties affect the experiences provided, and successes generated by, the focal organization.

The institutional logic shift moving to greater openness is a philosophical and cognitive transition (Tripsas & Gavetti, 2000), which is accompanied by process and behavioral changes. A transitioning organization must re-evaluate what it considers proprietary and essential to its core identity versus in what areas it is willing to: accept external inputs, allow others to innovate possibly using core technologies, and provide resources to enable others to create complementary products and services. Leaders struggle with balancing beliefs and requirements of openness with concerns about competitive advantage and risks. For example, a smartphone

provider may open interfaces and enable app development, yet a developer may create an app that decreases phone functionality (e.g., a game that drastically drains battery life, or worse yet, inappropriately steals private data), causing significant risks for the smartphone provider.

Scholars have highlighted difficulties firms face while undergoing significant technologically motivated change (Kaplan & Tripsas, 2008), and while the strategic changes associated with platform, open/user innovation, and ecosystem strategies are not all technologically driven, we see similar challenges arising during these strategic shifts because they present analogous tensions and complications. Tactically, organizations need to choose which interfaces to open and to what extent (Gawer & Cusumano, 2014). Opening interfaces (creating APIs) and providing software development kits (SDKs) that enable developers to create apps, which make it easier for external parties to work with an organization, are examples of moving to greater openness. Publishing accessible technical specifications to assist accessory providers building complementary products is also associated with this institutional logic shift. LEGO Ideas is an example of an initiative that enhanced the firm's ability to accept inputs, yet to implement required significant and extensive internal organizational change spanning cultural and technological challenges. In adopting this shift, organizations may relinquish some control over how end users experience their product or service offerings.

As organizations become more open, they need to build trust with external parties so that these external parties (e.g., app developers, accessory providers) invest resources to enhance the core organization's offerings. In many cases, external parties for which an organization opens interfaces are competitors, resulting in co-opetition (Brandenburger & Nalebuff, 1996; Gnyawali & Park, 2011). When Amazon created Amazon Marketplace and let booksellers (and eventually

others) offer products through Amazon's website, which at the time was primarily a bookseller, they enabled co-opetition, yet gained market share (Hagiu & Wright, 2015a; Zhu & Furr, 2016).

Moving to greater openness results in new risks for the organization including intellectual property (IP) considerations, data privacy, cyber-security, and so on. As firms open interfaces, complementors create new IP related to a core organization's IP. Traditional technology licensing schemes do not deal well with this new reality, so modified licensing structures must be created to specify who can use inventions, who owns IP, and how royalties are handled. In many examples, a critical asset is customer data. As organizations open interfaces and enable external entities to attach to their systems, they must ensure they maintain data privacy at professional levels appropriate for the context. This institutional logic shift may create significant organizational difficulties as leaders weigh risks, benefits, and trade-offs associated with sharing and exposing customer data either intentionally or unintentionally.

Focus on Enabling Interactions - Another institutional logic shift for firms transitioning to platform, open/user innovation, and ecosystem strategies is a new focus on enabling interactions, which affects the firm's culture, beliefs, norms, practices, and so on. Leadership and top management teams must shift from concentrating solely on producing goods and delivering services to facilitating transactions for others.

From a strategy perspective, when Ticketmaster opened its website to allow individuals to resell tickets (a feature they refer to as "Fan-to-Fan Resale"), it shifted from a longstanding strategy of reselling tickets from venues to allowing individual ticket owners to sell tickets on Ticketmaster's site.[12] On their website, they introduced a venue seat map where a consumer can

[12] As of July 28, 2016, the website: http://www.ticketmaster.com/verified explains the system.

see blue dots representing tickets for sale from Ticketmaster, and pink dots representing tickets for sale by individuals. Ticketmaster shifted its revenue model to receive a transaction fee for each ticket re-sold on its site. A hybrid strategy that includes a reseller and a platform-based business enabling transactions between others is visibly evident on one screen.

Beyond strategy and business model considerations, for leaders and top management teams, these strategic transitions pose challenges across functional areas. Marketing professionals must market not only to buyers, but also to sellers; the finance department must cope with revenue sharing models; leaders must manage relationships with venues to maintain trust, etc. These moves create leadership challenges as they introduce multiple, sometimes inconsistent, institutional logics where leaders must balance trade-offs associated with being both highly focused on their essential customer relationships (e.g., with concert venues and promoters for Ticketmaster), yet also open and inclusive encouraging all comers to sell on their website, even if those sellers might be undercutting pricing and cannibalizing the primary businesses in a co-opetition dynamic as part of a hybrid strategy. Employees need to be motivated to enable interactions when they may previously have been trained to concentrate on selling goods or services.

Leaders and top management teams need to consider how increasing their focus on enabling interactions affects who their customers are, how they engage with them, what skills and capabilities they need, and how consistent or inconsistent this is with existing institutional logics. Additionally, they need to consider how this affects their employee recruitment, training, and retention. In Ticketmaster's case, although the firm had a ready potential customer base to participate in selling and buying resale tickets because of their large ongoing business, as part of

their strategy to become a ticket reseller they purchased online ticket reseller TicketsNow for US$265M in 2008, which provided them with skills, capabilities, and additional customers.[13]

In some cases, organizations may need to create positive network effects (Katz & Shapiro, 1985) to generate momentum. They may need to address what is known as the "chicken-and-egg problem" as an organization struggles to get a platform or more open strategy started by subsidizing one participant group to catalyze matching across a platform (Caillaud & Jullien, 2003; Parker & Van Alstyne, 2005; Rochet & Tirole, 2003). Additionally, they may need to consider governance rules for how platform participants or ecosystem members may interact, such as deciding to what extent they should allow communication between participants (Bresnahan & Greenstein, 2014). New pricing strategies that potentially offer some free services to spur adoption (a.k.a., "freemium pricing") may conflict with existing norms of charging for all products and services. Similarly, governance considerations enabling customers to interact with each other might challenge prevailing norms that maintain data privacy and keep customers from gaining information about each other. Managing within this new world of multiple, and often conflicting, institutional logics presents challenges for leaders and top management teams adopting platform, open/user innovation, and ecosystem strategies.

Adopting Interaction-Centric Metrics - Another institutional logic shift for leaders and top management teams transitioning to platform, open/user innovation, and ecosystem strategies is adopting interaction-centric metrics aligned with new capabilities and behaviors. This shift involves a comprehensive change in how an organization measures its success and the

[13] Per TechCrunch, accessed on 19 August 2016: https://techcrunch.com/2008/01/15/ticketmaster-buys-online-scalper-ticketsnow-for-265-million/

accomplishments of its employees, thus affecting culture, norms, beliefs, practices, and so on. Incumbent firms may be using traditional metrics, reports, and management systems developed over many years and reflecting operations currently in place. As an organization transitions to platforms, open/user innovation, and ecosystem strategies, its leaders need to shift their philosophy and behaviors and adopt metrics consistent with new organizational activities (Van Alstyne, Parker, & Choudary, 2016). Entrepreneurial organizations that adopt these strategies from the outset (e.g., Uber and Airbnb) develop business metrics adapted for platform, open/user innovation, and ecosystem businesses. In contrast, mature incumbent firms and their employees who have succeeded by selling products and services, rather than by enabling interactions and interacting with others, may not be managing to metrics that measure such activity success, so may need to undergo this institutional logic shift.

Whereas traditionally a product firm might focus on measuring the volume of units sold, in a business dependent upon enabling interactions, it might make more sense to measure quantities of transactions enabled. Thus, transaction volume might be an example of a metric appropriate for platform, open/user innovation, or ecosystem strategies. Similarly, tracking interaction quality via transaction value or a related measure might become increasingly relevant (Van Alstyne, Parker, & Choudary, 2016). Platform engagement becomes another important value as firms aim to understand how customers and users interact with their offerings. Similarly, since external parties are interacting and benefitting from interactions, there is likely advantage to tracking value generated by others as a result of participation in these strategies. In cases where firms operate hybrid strategies that include both traditional product and service offerings along with open engagement strategies, choosing appropriate business metrics becomes even more difficult. Similarly, performance metrics for employees must be aligned with appropriate

business metrics. Firms must maintain metrics that work for traditional business, and adopt new metrics to manage their innovation initiatives, and be sure they are not creating conflicting incentives. For top management teams, as some members run traditional businesses while others manage new platform or ecosystem-based initiatives, strategic leadership challenges may increase.

These challenges affect organizations not only in one functional area but across the value chain. As the Ticketmaster example illustrates, functional areas across organizations are affected by these shifts. Often, when scholars discuss these changes, we treat organizations as black boxes. However, these challenges span functions and each area needs to determine appropriate responses (Altman, Nagle, & Tushman, 2017). Leaders across the organization must recognize these challenges and how responses to them may differ from those in more traditional organizations. They must also understand that these shifts represent challenges and shifts in existing institutional logics. In the next section, we discuss strategic leadership challenges associated with leading and managing in the context of these institutional logic shifts.

STRATEGIC LEADERSHIP CHALLENGES

While researchers explore strategic, economic, and management trade-offs of platform, open/user innovation, and ecosystem strategies, there is scant work focusing on implications for leaders. As organizations transition to platform, open/user innovation, and ecosystem strategies, and undergo institutional logic shifts associated with these moves, their leaders and top management teams face new challenges. While organizations increase external focus, move to greater openness, focus on enabling interactions, and adopt interaction-centric metrics, their leaders must interact more with external parties (e.g., developers, innovation contributors,

complementors, etc.), yet still motivate and retain internal talented employees such as those in R&D, marketing, and so on. In this section, we take a strategic leadership lens to organizations transitioning to platform, open/user innovation, and ecosystem strategies. We explore considerations for direct transitions, and for incumbent organizations wrestling with adding a new strategy while continuing to simultaneously maintain an old approach. This duality of managing hybrid strategies creates distinct tensions and challenges. We consider how strategic leadership by individuals and management teams is affected by these transitions and their institutional logic shifts, and how this might differ from leadership in more traditional settings.

Leadership is a topic often studied at the micro-level with emphasis on a leader's attributes, characteristics, behaviors, and so on (Selznick, 1957). Scholars also study leadership from the perspective of what leaders and top management teams do, how they make decisions to affect organizational performance, and the environment in which they operate including follower characteristics. Falling under a variety of research agenda titles, *organizational leadership* (Hollander, 1971) takes this perspective as does *strategic leadership* (Finkelstein & Hambrick, 1996). In an update to the classic book on strategic leadership, Finkelstein, Hambrick, & Canella, Jr., (2009) note that strategic leadership encompasses the study of management of an enterprise focusing on decision-making responsibilities as a primary concern more so than relational and interpersonal elements.

Drawing from the frameworks set forth by Finkelstein, Hambrick, and Canella, Jr. (2009), we select a few strategic leadership areas on which to focus relative to incumbent organization transitions to platform, open/user innovation, and ecosystem strategies. We consider four topics from the strategic leadership research: 1) executive orientation and experiences, 2) top management teams, especially interrelationships and power, 3) board-management relations,

particularly how boards affect organizational choices, strategy, and performance, and 4) executive compensation. Focusing on these four provides a good basis to understand leadership challenges for incumbent organizations transitioning to platform, open/user innovation, and ecosystem strategies.

Executive orientation and experiences - Executives arrive at their positions from varying backgrounds with differing experiences, all of which affect decision-making (Hambrick, 1989). Finkelstein, Hambrick, and Canella, Jr. highlight an executive's orientation defining it as "an interwoven set of psychological characteristics (e.g., values, cognitive model, and personality) and more observable experiences (such as functional background, education, and age or tenure)" (2009: 46). As organizations transition to platform, open/user innovation, and ecosystem strategies, they undergo institutional logic shifts focusing more externally, opening interfaces, enabling interactions, and adopting new interaction-centric metrics. For executives who have worked in traditional organizations centered principally on internal excellence and developing capabilities within organizations, their orientation may hinder them as they manage strategies emphasizing externally facing value-creating interactions and interactions between other parties.

Looking externally for solutions, engaging more fully in boundary-spanning activities, and developing an organization that welcomes external inputs might go against the instincts of an executive trained in a closed insular environment. Particularly for executives who have operated in secretive environments, such as in defense-related industries or highly competitive technology industries, the notion that new product information must be widely shared, interfaces opened, and individuals outside the organization enabled with tools and guidelines, may be difficult to accept. Since mature incumbent firms transitioning to these strategies may choose senior leaders

with long tenure, firms need to recognize that executives' orientation and experience may be inconsistent with new situations in which they are expected to lead.

Top management teams – Throughout this paper as we discuss leadership challenges, we focus not only on individual leaders, but also on top management teams. Researchers study top management teams along with chief executive officers (CEOs) for a variety of reasons, not least is that research shows studying top management teams provides better understanding of organizational decision-making and outcomes (Carpenter & Fredrickson, 2001; Hambrick, Cho, & Chen, 1996; Wiersema & Bantel, 1992). Organizations undergoing transitions to platform, open/user innovation, and ecosystem strategies can be complex and frequently multi-divisional. They may also be multi-national and span industries. Decisions that affect strategic direction are generally made with significant input from a variety of leaders. The complex and sometimes conflicting nature of decisions associated with platform, open/user innovation, and ecosystem transitions lend themselves to being particularly problematic for top management teams. This may be especially true in businesses maintaining traditional strategies while also adopting new ones, thus creating hybrid organizations and the paradoxical challenges associated with them (Smith & Lewis, 2011; Smith & Tushman, 2005). For example, Amazon leadership must balance traditional reseller business requirements with the business needs of their Amazon Marketplace. Managers responsible for each business must negotiate internally as they consider resource allocations, planning priorities, and talent management considerations.

In a traditional organization, one product group might be able to pursue its own strategic direction without markedly affecting the rest of the organization. In contrast, incumbents transitioning to platform, open/user innovation, and ecosystem strategies tend to involve varying

degrees of opening interfaces, providing data to external parties, and engaging broadly outside firm boundaries. Decisions in one division may have impacts across a firm. For example, decisions regarding how open to make a product represent a strategic leadership challenge for top management teams. If multiple divisions work with the same software code base, and one division leader decides to open interfaces and enable outsiders to develop for it and integrate with it, this might cause difficulties for another manager. When Intuit's QuickBooks group expanded its platform strategy opening interfaces to allow PayPal to integrate functionality with QuickBooks, this likely caused a leadership challenge for Intuit's in-house QuickBooks Payments product team.[14] For the parent corporation (Intuit) enabling cooperation with PayPal created co-opetition. For the group leader working on the QuickBooks Payments product, this decision created more competition. Additionally, if not all top management team members are familiar with platform, open/user innovation, and ecosystem strategies, difficulties could arise if there is inconsistent understanding across the team with conflicting perspectives related to external focus, openness, enabling interactions, etc.

Board-management relations – As with top management teams, scholars include board-management relations within the strategic leadership umbrella because board decisions profoundly impact organizational strategic direction (Haynes & Hillman, 2010; Hillman & Dalziel, 2003; Mizruchi, 1983; Walls & Hoffman, 2013). In addition to traditional board roles, such as monitoring (Hambrick, Misangyi, & Park, 2015) and providing resources (Hillman, 2005), a primary board role is to act as a boundary spanner linking organizations to

[14] For a press release explaining the relationship between Intuit QuickBooks and PayPal, see: http://www.businesswire.com/news/home/20161024005498/en/Intuit-PayPal-Partner-Small-Businesses-Self-Employed-Paid (accessed on January 23, 2017).

environmental resources (Barroso-Castro, Villegas-Periñan, & Casillas-Bueno, 2016; Finkelstein, Hambrick, & Cannella, 2009). Director interlock research (Haunschild & Beckman, 1998; Zhelyazkov & Gulati, 2016) specializes in this study elucidating how director networks impact organizations.

Since transitions to platforms, open/user innovation, and ecosystems introduce more boundary spanning activities, boards may play increasingly active roles throughout these transitions, such as providing introductions and network connections. Boards also might decide they must engage in more active oversight and monitoring considering new risks related to openness and external engagement. As organizations address conflicting institutional logics, boards may be called upon to resolve conflict and steer organizations towards newer institutional logics with which board members might have experience from other contexts.

Metric changes may affect board-management relations as boards play a role measuring and evaluating managers and need to adopt and understand new metrics. If members are from traditional product and service firms, they might expect more traditional metrics. When leadership and top management teams present new interaction–centric metrics such as platform engagement, transactions enabled, or value created for complementors, board members might not understand or value these. Conversely, if the transitioning firm does not know it should be tracking these different metrics, then a board can help if it has the appropriate expertise.

Executive compensation – Executive compensation is an actively researched topic in strategic management (Barnard, 1938; Jensen & Murphy, 1990; Wasserman, 2006) and relevant to incumbent transitions to platforms, open/user innovation, and ecosystems. Executive compensation is often tied to organizational performance and metrics. As metrics change, so too

must executive compensation decisions. When an organization transitions to be more externally focused, open, enabling transactions, and adopting new interaction-centric metrics, what does this mean for how executives' performance should be measured and compensated? Is an enormous network as valuable as increased market share or profitability? Should executives be provided incentives for creating networks through platforms, ecosystems, and related strategies? Examples abound of acquisitions where firms pay dearly to gain access to large networks that have not yet proven markedly profitable (e.g., Facebook paid US$22 billion for WhatsApp with only US$10 million revenue in 2014).[15] Executives must be compensated to provide incentives for them to grow business in the most profitable way, which may be different in platform, open/user innovation, and ecosystem strategic contexts. The traditional yardsticks to measure executive performance effectiveness may not be most appropriate in an environment characterized by large platforms, innovator communities, and ecosystems.

DISCUSSION

In this paper, we analyze platform, open/user innovation, and ecosystem strategies, institutional logic shifts associated with transitions to these strategies, and strategic leadership considerations related to them. While sometimes considered together in research discussions (Ceccagnoli, Forman, Huang, & Wu, 2012; Gawer and Cusumano, 2014), platforms, open/user innovation, and ecosystem strategies are often approached as independent research topics with distinct differences from a strategy and implementation standpoint. In this paper, we identify previously underexplored similarities and differences, particularly related to organizational considerations. We focus our analysis on incumbent organizations transitioning to platform, open/user

[15] According to Bloomberg Technology accessed on 19 August 2016: http://www.bloomberg.com/news/articles/2014-10-28/facebook-s-22-billion-whatsapp-deal-buys-10-million-in-sales

innovation, and ecosystem strategies in both pure and hybrid forms. We explore strategic leadership considerations for individuals and top management teams and contrast leadership topics related to platforms, open/user innovation, and ecosystems with those evident in more traditional strategies. This work opens new research areas that emerge at the intersection of the three strategies and in conjunction with institutional logic and strategic leadership inquiries.

To the platform, open/user innovation, and ecosystem literature streams, we pull together three topics that are often considered independently and focus especially on similarities and differences between them. We present an integrated framework related to how firms adopting these strategies interact with entities outside their organizational boundaries, and use Darwinian evolutionary analogies to consider how far sources of variation and selection reside outside the organization. We present a two-by-two matrix highlighting that the loci of variation and selection may reside either close to, or far away from, the center of organizations adopting these strategies. Additionally, we expand the discussion of incumbent transitions to platforms, open/user innovation, and ecosystems highlighting four institutional logic shits associated with these transitions and provide examples of related activities.

To organizational theory literature, our contributions are to institutional logic and strategic leadership theory. We provide a new context within which to apply strategic leadership theory. These nascent phenomena represent significantly important and relevant new business strategies that include multiple contrasting and inconsistent institutional logics. While traditional firms operate in a more hierarchical manner, these new strategies require that firms perform in a more interconnected, interdependent, and open environment. One way for organizational scholars to better understand these phenomena is to consider them through a strategic leadership lens. Additionally, these phenomena provide excellent opportunities for novel research on

leadership and boards. Through these research endeavors, we can improve our understanding of the phenomena and expand our knowledge about strategic leadership.

To managers and leaders in organizations facing transitions to platforms, open/user innovation, and ecosystems, we present a new set of considerations related to strategic leadership. As individuals and top management teams embark on these transitions, they should carefully explore management challenges associated with shifts to more externally focused, open, and transaction-oriented approaches. Additionally, they should recognize that newer institutional logics may be in direct conflict with existing ones. Particularly in hybrid organizations incorporating both traditional and more open strategies, leaders should consider how these contrasting institutional logics co-exist and manage this duality including potential organizational identity challenges.[16]

FUTURE DIRECTIONS AND RESEARCH OPPORTUNITIES

In this paper, we discussed transitions to platforms, open/user innovation, and ecosystem strategies by mature incumbent firms. We highlighted that these firms have existing businesses, identities, and institutional logics from which they are transitioning. We can take this discussion to the next step by more granularly specifying different transition types. Is a firm transitioning its business entirely to become a platform, or more likely as Amazon and Ticketmaster have done, maintaining its original traditional business and adding a platform offering? What challenges does the hybrid product, services, or reseller organization face in strategic leadership? If the new platform, open/user innovation, or ecosystem strategy only affects a small fraction of the

[16] Ebrahim, Battilana, and Mair (2014) also address governance tensions in hybrid organizations as they consider organizations pursuing a social mission with a market mechanism. For managers and scholars interested in challenges of governance and management in hybrid organizations, it is worth exploring this line of research as well.

business, how is that different than if the new strategy constitutes 50% or 90% of the business? Roughly speaking, Amazon's business is now driven 50% by Amazon Marketplace transactions. What challenges does that ratio present to the leadership team?

Throughout this paper, we presume that each organization transitions to one or the other strategy type. We do not discuss situations where the organization adopts more than one. What are the strategic challenges and implications for leaders and top management teams when an organization both develops a new platform business, and also joins another business ecosystem as a complementor? Particularly for CEOs, top management teams, and boards that have responsibility across organizations, are there challenges associated with creating dependencies in one business and responding to dependencies in another (Altman, 2017)? Are there challenges associated with paradoxes of managing traditional and more open businesses simultaneously?

We also did not discuss asymmetries in power that may be created either by becoming a platform or joining an ecosystem (Altman, 2017). When an organization joins an ecosystem, in combination with another strategy or separately, how do asymmetries in power affect strategic leadership considerations? When a firm becomes a complementor to an organization much more powerful than it is, such as when a firm creates accessories for a large smartphone or tablet provider, how do leaders continue to motivate employees? Do metrics change?

Another interesting dynamic of today's platform and ecosystem businesses is that often producers can be consumers, and consumers can be producers. For example, on platforms such as Uber, a driver can sometimes be a rider and vice versa. Similarly, an Airbnb host can be an Airbnb consumer. There may be notable leadership challenges related to this dynamic since each platform side can see the perspective of the other side. This also may encourage transparency

(Bernstein, 2012) that was not as relevant in traditional strategies where consumers never served as producers, and producers usually did not serve also as consumers.

As organizations undergo transitions to platforms, open/user innovation, ecosystems and related strategies, other organizational theories beyond institutional logics and strategic leadership will likely provide relevant insights as well. We can bring to bear organizational theory research to understand these transitions better and expand those theoretical traditions by providing a novel context with new organizational dynamics. For example, we mention organizational identity effects and implications. Though there is some work in this area related to platform transitions (Altman & Tripsas, 2015) there is much more to explore by broadening the scope to include open/user innovation and ecosystem considerations. Similarly, we discussed dependencies related to these transitions; there is more to be considered related to dependencies and organizational responses across platforms, open/user innovation, and ecosystems (Altman, 2017). Other related topic areas with nascent research streams to expand further include: boundary porosity and evolution (Tushman, Lakhani, & Lifshitz-Assaf, 2012), institutional logic transitions (Gawer & Phillips, 2013; Marquis & Lounsbury, 2007), and modularity effects (Baldwin & Clark, 2000; Baldwin & von Hippel, 2011).

Finally, we chose to focus on incumbent organizations facing these transitions. Scholars could also expand this work to include implications for entrepreneurs. It would be interesting and worthwhile to explore which strategic leadership challenges might be the same for managers across incumbent and entrepreneurial organizations, which might be relevant only for incumbents, and what might be additional considerations for strategic leadership in entrepreneurial firms building enterprises leveraging platforms, open/user innovation, and ecosystem strategies.

CONCLUSION

By considering platforms, open/user innovation, and ecosystems together, incumbent firm transitions to such strategies in total and to hybrid strategies, institutional logic shifts associated with these strategies, and exploring implications for strategic leadership, we learn more about these business strategies and expand our institutional logic and strategic leadership understanding. Throughout this paper, we mention topic areas related to transitions to these strategies that we believe are interesting and worth pursuing further. We present a potential research agenda to pursue via more rigorous empirical and theory development methods. We open new areas for research by showing that in the nascent area of platform, open/user innovation, and ecosystem strategy there are new highly relevant considerations for strategic leaders and their top management teams.

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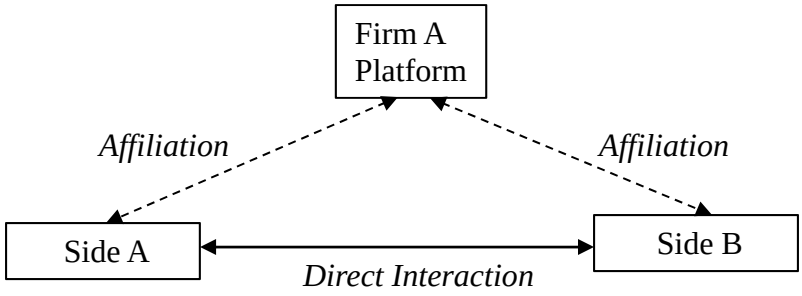
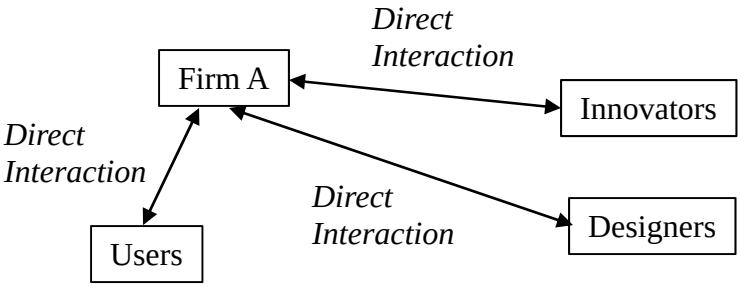
FIGURES

Figure 1 – Platform, Open/User Innovation, and Ecosystem Example Structures

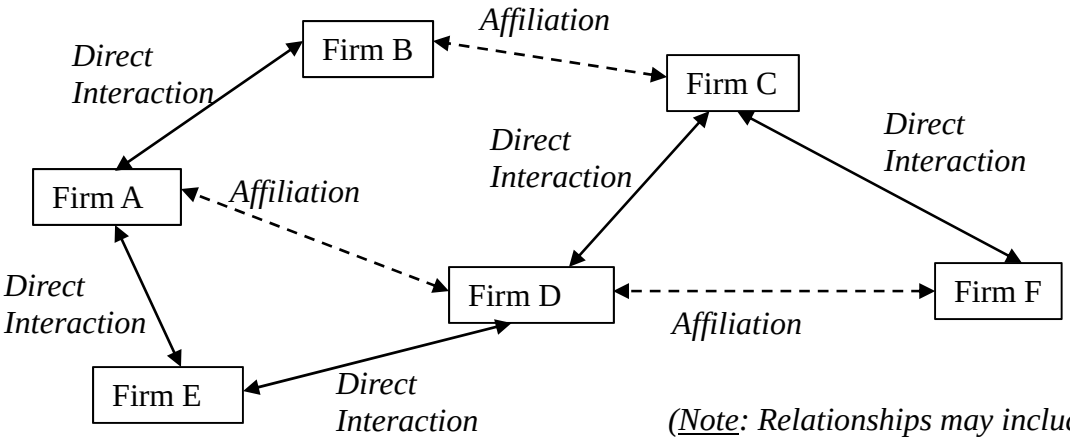
1a. Platform Structure



1b. Open/User Innovation Structure

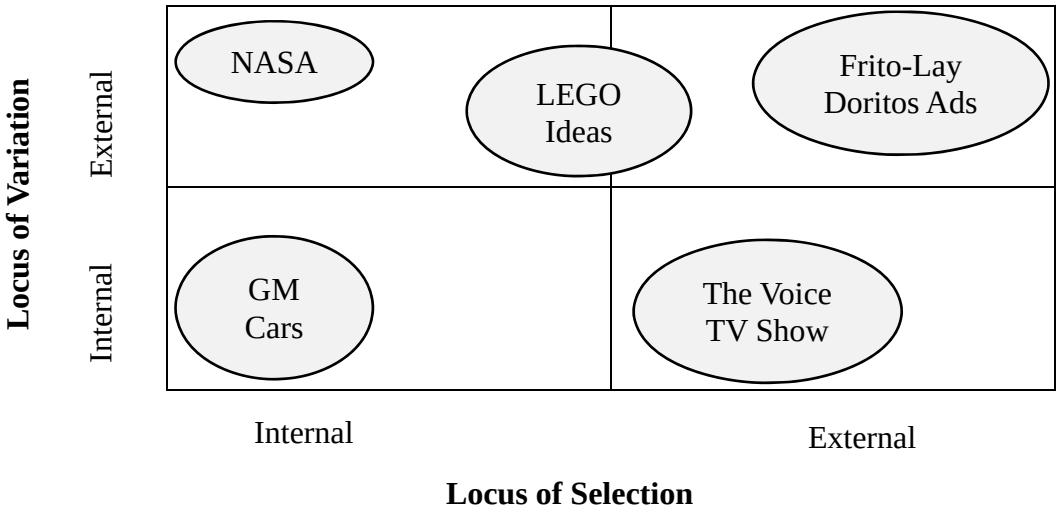


1c. Ecosystem Structure



(Note: Relationships may include affiliations and direct interactions)

Figure 2 – Strategy Map: Locus of Variation vs. Selection



TABLES

Table 1. Institutional Logic Shifts for Incumbents Transitioning to Platform, Open/User Innovation, and Ecosystem Strategies with Representative Example Activitie

Institutional Logic Shift	Incumbent Transition Challenge	Representative Example Activity
Increasing External Focus	• Recognize critical value of complementors	• Build developer ecosystem for apps
	• Create communities rather than one-off alliances & partnerships	• Manage external contributors (e.g., designers)
	• Develop dependencies	• Improve documentation
	• Shift organizational identity	• From solvers to seekers
	• Build capabilities to engage externally	• Build an ecosystem management team
Moving to Greater Openness	• Decide interfaces to create and open and how to do so	• Develop and offer APIs and SDKs
	• Relinquish some control over user experience	• Allow apps to be installed
	• Build trust with external contributors and complementors	• Balance M&A ambitions with ecosystem nurturing
	• Manage co-opetition ("frenemy") relationships	• Allow competitors to operate on your platform
	• Understand and mitigate new risk types	• Manage intellectual property considerations; Data privacy concerns
Focusing on Enabling Interactions	• Become an orchestrator	• Facilitate matches between participants; Encourage innovator collaboration
	• Address chicken-and-egg problem	• Manage pricing and costs with subsidization
	• Create and manage network effects	• Nurture benefits to all sides to increase participation
	• Develop governance rules for participants to interact	• Enable some participants to communicate with each other
	• Understand and meet goals of each engaged community	• Enable developers to benefit from participating
Adopting Interaction-Centric Metrics	• Measure transaction volume	• # of interactions
	• Track adoption	• # of registrations, subscriptions, and/or participants
	• Understand value generated by others through interactions	• Reporting and audit requirements and systems
	• All engagement metrics	• Adopt latest platform, open/user innovation, and ecosystem metrics

	• Consider full product portfolio offerings	• Consider hardware, software, services, etc. together so do not sub-optimize

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