CHANGING WITH THE TIMES: AN INTEGRATED VIEW OF IDENTITY, LEGITIMACY AND NEW VENTURE LIFE CYCLES

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Abstract

In order to acquire resources, new ventures need to be perceived as legitimate. For this to occur, a venture must meet the expectations of various audiences with differing norms, standards, and values as the venture evolves and grows. We investigate how the organizational identity of a technology venture must adapt to meet the expectations of critical resource providers at each stage of its organizational life cycle. In so doing, we provide a temporal perspective on the interactions between identity, organizational legitimacy, institutional environments, and entrepreneurial resource acquisition for technology ventures. The core assertion from this conceptual analysis is that entrepreneurial ventures confront multiple legitimacy thresholds as they evolve and grow. We identify and discuss three key insights related to entrepreneurs' efforts to cross those thresholds at different organizational life cycle stages: institutional pluralism, venture-identity embeddedness and legitimacy buffering.

New ventures confront "liability of newness" concerns because the risk of failure for new ventures is much higher than for established organizations (Stinchcombe, 1965: 148). This liability, along with their lack of operating histories, makes it difficult for new ventures to access needed resources to exploit entrepreneurial opportunities. Dermont Berkery (2007: 1), a venture capitalist, aptly describes their challenge as follows:

> New companies are guilty until proven innocent. Most of them fail. Investors know this. Entrepreneurs don't—or at least choose not to believe this. [Entrepreneurs believe] their company will be different from all others…Businesses need capital so that they can invest in people, physical assets, inventory, and so on. But investors are gripped by the fear of failure and possible loss of precious capital.

Acquiring and managing organizational legitimacy is recognized as an antidote to the liability of newness concerns confronting new ventures. Legitimacy is "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995: 574). Numerous researchers have examined how legitimacy and resource acquisition are interrelated (Delmar & Shane, 2004; Martens, Jennings, & Jennings, 2007; Navis & Glynn, 2011; Sine, David, & Mitsuhashi, 2007; Zimmerman & Zeitz, 2002; Zott & Huy, 2007). For an entrepreneurial venture to be perceived as legitimate, its structures, practices, and behaviors must align with the prevailing institutions in the environment where it operates (Tolbert, David, & Sine, 2011).

Research on legitimacy acquisition for entrepreneurial ventures has predominantly focused on its attainment through different mechanisms, including: narratives and stories (Aldrich & Fiol, 1994; Lounsbury & Glynn, 2001; Martens et al., 2007), symbolic management practices (Aldrich & Fiol, 1994; Zott & Huy, 2007), claiming membership in an emerging or existing category (Kennedy, 2008; Kennedy, Lo, & Lounsbury, 2010; Navis & Glynn, 2010, 2011; Wry, Lounsbury, & Glynn, 2011), and conformance with or manipulation of the institutional environment (Zimmerman & Zeitz, 2002). Firms also attain legitimacy through identity claims of "who we are" and "what we do" (Navis & Glynn, 2011). Although legitimacy *attainment* is important for new ventures, organizational scholars also emphasize that legitimacy is something that must be carefully *managed* so that it is not lost once attained (e.g., Elsbach, 1994; Jonsson, Greve, & Fujiwara-Greve, 2009; Suchman, 1995). Therefore, entrepreneurs need to work towards attaining as well as managing organizational legitimacy as a venture evolves and grows.

Extant research on legitimacy attainment and management in entrepreneurial settings is predicated upon a few restrictive assumptions. First, researchers have assumed that legitimacy is less of a concern once a venture becomes an established organization—an assumption consistent with liability of newness arguments. Accordingly, Zimmerman and Zeitz (2002) proposed the notion of a "single" legitimacy threshold below which a venture is expected to fail, and above which it is perceived as legitimate and thus able to garner resources needed for survival and growth. This assumption has led to limited research attention to scenarios where a new venture's legitimacy declines or is threatened after the single threshold is crossed.

Second, researchers have assumed that resource providers are homogeneous in their assessments of new venture legitimacy. However, entrepreneurial ventures depend on resources derived from a diverse range of audiences (Denis, 2004; Hanlon & Saunders, 2007) who generally have differing norms, beliefs, rules, and procedures for assessing a venture. Since legitimacy assessments represent a social judgment that resides in the eye of the beholder (Ashforth & Gibbs, 1990; Bitektine, 2011; Webb, Tihanyi, Ireland, & Sirmon, 2009), such assessments are audience-dependent (Suchman, 1995). If the nature of the resource provider assessing the legitimacy of an entrepreneurial venture changes, then the norms and beliefs by which the venture is assessed also change. Hence, there is a recognized need for research that explores how assessments of new ventures "differ across different audience contexts" (Navis & Glynn, 2011: 494).

In an effort to relax these restrictive assumptions, we examine the following research question: *How do legitimacy criteria change for entrepreneurial ventures as they develop and seek resources from different audiences over time?* To address this research question, we draw on identity theory as it relates to entrepreneurial endeavors (e.g. Navis & Glynn, 2011), institutional theory related to the legitimation of new ventures (e.g. Aldrich & Fiol, 1994; Suchman, 1995), and the life cycle theory of organizations (e.g. Kazanjian, 1988) to assert that as a venture progresses through different life cycle stages, it generally attempts to garner resources from different actors with differing legitimacy evaluation criteria. We posit that a venture's identity must develop, evolve, and adapt to meet varying expectations of its changing audiences. Because a venture's identity is imprinted in its routines and values (Hannan, Baron, Hsu, & Koçak, 2006) and strongly attached to the individual identity of its founder(s) (Fauchart & Gruber, 2011), changing a venture's identity can be challenging (Gioia & Thomas, 1996; Nag, Corley, & Gioia, 2007). Hence, adapting a venture's identity to maintain organizational legitimacy as it evolves through different life cycle stages needs to be carefully orchestrated.

Integrating insights from different theoretical perspectives, we highlight a core conceptual assertion that entrepreneurial ventures confront *multiple legitimacy thresholds* due to their evolution and growth, as well as their audiences' differing expectations of what constitutes a legitimate venture. We then identify and discuss three key insights related to entrepreneurs' efforts to cross those thresholds at different organizational life cycle stages. First, we posit that ventures confront periods of *institutional pluralism* as they appeal to resource providers with differing perspectives of what constitutes a legitimate venture. Second, we argue that ventures with high levels of legitimacy in one organizational life cycle stage will confront challenges related to *venture-identity embeddedness* as they transition to the next stage. Third, we propose that high levels of legitimacy attained in prior life cycle stages may serve as a *buffer* for meeting legitimacy requirements for subsequent stages. These theoretical assertions, individually and in combination, provide a novel, unique, and comprehensive perspective on legitimacy attainment and management in new ventures. Taken together they suggest that legitimacy attainment early in a venture's life does not necessarily ensure its continuance over time. They highlight the significant challenges associated with legitimacy attainment and management that occur over a venture's life cycle as it transforms into an established public entity. They also highlight the mechanisms that entrepreneurs can use to manage legitimacy to ensure continued access to resources.

Since the entrepreneurship research domain is broad (cf. Schildt, Zahra, & Sillanpää, 2006), we limit the scope of our theoretical arguments to legitimacy assessments made by financial resource providers who are focused on technology-based ventures. Researchers have distinguished technology-based venturing from mainstream entrepreneurship by emphasizing its focus on science- and technology-driven innovation as the basis of entrepreneurial opportunity (Beckman, Eisenhardt, Kotha, Meyer, & Rajagopalan, 2012).[1] Developing arguments for technological ventures enables us to provide clarity and consistency in our theorizing.

We focus on financial resources, as these represent a fundamental and measurable proxy for new venture legitimacy (e.g, Martens et al., 2007; Zott & Huy, 2007). As noted by Hsu (2007), timely acquisition of financial resources allows fledgling ventures to devote greater time

[1]Since technology-based ventures result from unique technical insight, they generally emerge from settings rich in technical knowledge, develop through distinct life cycle stages and, if successfully commercialized, have the potential for significant growth and competitiveness (Hsu, 2008).

and attention to core product-market issues, such as product development, competitive landscape monitoring, and customer acquisition, as opposed to administrative duties such as fundraising efforts. Given the resource constraints start-ups usually face, having more time for product-market issues can be critical for survival.

Although our examples and assertions are specific to financial resource providers evaluating technology ventures founded in academic settings, the overarching concept of new venture legitimacy shifts across organizational life cycle stages is generalizable to other entrepreneurial settings. [2] Almost all new ventures that seek to grow into substantive enterprises will need to appeal to different audiences—with different legitimacy criteria—as they develop and evolve. Therefore, although the specific audience categories and associated legitimacy evaluation criteria may differ in other settings (e.g. family ventures, social ventures), the challenges and opportunities associated with multiple legitimacy thresholds, institutional pluralism, venture-identity embeddedness and legitimacy buffering over a venture's life cycle are likely to be present in other settings.

We make the following contributions. First, we contribute to the literature at the intersection of institutions and entrepreneurship (Hiatt, Sine, & Tolbert, 2009; Tolbert et al., 2011; Zott & Huy, 2007). While this literature has focused generally on the impact of institutional environment on organizational start-ups, there has been little research on how the institutional environment impacts new ventures' survival and growth *over time*, in particular as they transition through different developmental stages. We provide a longitudinal perspective connecting ventures with the institutional environments in which they operate, and pay particular

[2] Focusing on technology ventures started in academic settings helps us to contextualize our arguments pertaining to technology ventures in a consistent and salient setting, thereby allowing us to theorize with clarity and impact. Additionally, while such ventures are fairly common in the entrepreneurial landscape, they often represent promising high-growth firms, thus making them an appropriate context for theory development.

attention to issues of temporality in neo-institutional theory (Granovetter, 1992) by considering how institutional pressures on an entity change with time. Second, we contribute to the legitimacy and entrepreneurship literature by explicitly linking legitimacy criteria to systemic changes in the audiences for new ventures, thus building a richer, more nuanced, and comprehensive perspective of new venture legitimacy. To this end, we specify that new ventures confront multiple legitimacy thresholds as they move through different life cycle stages and we identify three key insights related to entrepreneurs' efforts to cross those thresholds at different organizational life cycle stages: institutional pluralism, venture-identity embeddedness and legitimacy buffering, which we discuss in greater detail later.

We contribute to the identity literature by elaborating on the process that prompts organizational actors to modify their identity claims over time as an organization evolves. Prior research has suggested that organizational identity claims may change as an organization's strategy evolves (Albert & Whetten, 1985; Gioia & Thomas, 1996; Nag et al., 2007; Waldron, Navis, & Fisher, 2013). Yet these changes have, for the most part, been theorized as *ad hoc* adaptations in response to significant environmental jolts. In contrast, we add more conceptual clarity to the drivers triggering critical but systematic adaptations to an organization's identity over its early life cycle, and argue that such adaptations arise in response to changing legitimacy criteria that different audiences employ when providing resources to ventures. Thus, our research builds on the work of Whetten (2006), but departs from it by shifting identity theory's core frame of reference away from the "who" to the "when," "how," and "why."

We structure our paper as follows. First, we provide the theoretical background from research on legitimacy, identity, and organizational life cycles. We apply this theoretical background to issues related to resource acquisition in an entrepreneurial context. We propose a conceptual framework linking legitimacy, identity, and organizational life cycle stages to discuss the legitimacy challenges and opportunities for new ventures as they evolve and grow. We conclude with implications for research and practice.

THEORETICAL BACKGROUND

Legitimacy and entrepreneurial ventures

As noted, Suchman (1995: 574) defined legitimacy as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions." Since most new ventures lack a track record (i.e., paying customers, a strong financial history) and are low power actors (Santos & Eisenhardt, 2009), they often struggle to garner endorsements from powerful institutional actors, who often question their *raison d'être*. Research has suggested that there exists a legitimacy threshold for new ventures, below which an entity is perceived as illegitimate and is unlikely to attract resources, and above which it becomes a significantly more desirable recipient for resources (Zimmerman & Zeitz, 2002).

Prior research has also suggested that the relationship between legitimacy and resource acquisition can be non-linear. Although a minimum level of legitimacy begets resources, subsequent increases provide decreasing returns (Pollock & Rindova, 2003), as further exposure does not necessarily increase audience attention (Fiske & Taylor, 1991; Starbuck & Milliken, 1988). This view is consistent with Granovetter's (1978) observation that social influence is often a non-linear process, and is also consistent with Anderson's (1981) assertion that the degree to which information is used in impression formation depends on its non-redundancy; redundant information leads to an "attention decrement". Therefore, for an entrepreneurial venture, investing in legitimacy may be essential up to a point, as it enables the venture to access much needed resources. Beyond that point, however, further investments in organizational legitimacy do not necessarily yield commensurate benefits.

Researchers also suggest that organizational legitimacy can be lost. In some cases, organizations that are perceived as legitimate may engage in activities that prompt audiences to question whether they remain desirable, proper, or appropriate (Elsbach, 1994; Jonsson et al., 2009). For example, Jonsson and colleagues (2009) described how Skandia AB—a highly legitimate and well-established Swedish Insurance firm—lost its legitimacy when it announced the sale of its asset management business. Elsbach (1994) highlighted how organizations in the California cattle industry lost legitimacy following a television documentary depicting poor animal care in a western cattle ranch, along with the release of studies linking fat from beef consumption to heart diseases. These examples suggest that legitimacy, once achieved, cannot be assumed to always be present and must be managed such that it can be maintained and repaired when necessary (Suchman, 1995).

Identity

An entity's identity is its definition of itself (Corley et al., 2006). Identity serves as a mechanism for self-definition at both an individual and organizational level. At the individual level identity is "a general, if individualized, framework for understanding oneself that is formed and sustained via social interaction" (Gioia, 1998: 19). At the organizational level, identity defines members' collective, shared sense of who they are as an organization (Albert & Whetten, 1985; Corley & Gioia, 2004; Stimpert, Gustafson, & Sarason, 1998; Waldron et al., 2013) – thus answering critical questions of "who we are" and "what we do" (Navis & Glynn, 2011).

An entity's identity is conveyed to an external audience through identity claims (e.g., Ashforth & Mael, 1989; Glynn, 2000; Porac, Wade, & Pollock, 1999). Identity claims are selfreferential claims that define the essence of an entity, signaling or specifying its core attributes; they may be tacit or explicit, or taken for granted or more consciously available (Corley & Gioia, 2004). These claims serve as triggers for sensemaking as individuals both within and outside an entity attempt to make sense of that entity (Navis & Glynn, 2011; Waldron et al., 2013; Weber & Glynn, 2006; Weick, 1995). Meaningful identity claims enable individuals to connect with an entity and understand their role and purpose in relation to that entity (Dutton & Dukerich, 1991; Dutton, Dukerich, & Harquail, 1994; Whetten, 2006). Within organizations, identity claims serve as defining and stabilizing mechanisms for individuals.

This becomes particularly important under uncertain and ambiguous conditions, such as those confronting entrepreneurial ventures. For entrepreneurial ventures, identity claims can describe the nature of the market being pursued, the essence of the organization, and the nature of the individuals involved (cf. Dutton et al., 1994). An *entrepreneurial identity* embeds claims related to all three levels of analysis—the founder (individual level), the proposed new venture (organizational level), and the focal institutional sector (market level) (Navis & Glynn, 2011).

Identity claims may serve to distinguish an entrepreneurial venture if it highlights what is novel and different about the endeavor, thereby reinforcing its distinctiveness (Albert & Whetten, 1985). Identity claims may also bond an entrepreneurial endeavor with other similar organizations by purposely invoking familiar conventions and symbols (Navis & Glynn, 2011). In this way, identity claims may serve to establish a collective identity for the firm by claiming membership in a market category or affiliating with an existing institutional structure (Glynn, 2008; Navis & Glynn, 2010, 2011; Wry et al., 2011).[3]

[3] Collective identities operate at a macro-organizational level and, once established, enable internal and external audiences to distinguish between distinct groups and sub-groups of organizations such as industrial versus craft brewers (Carroll & Swaminathan, 2000), classical versus nouvelle cuisine restaurants (Rao, Monin, & Durand,

As an entrepreneurial venture transforms into an established organization, it may develop multiple identities in multiple contexts with different audiences (Gioia, Schultz, & Corley, 2000). The organizational identity then consists of "constellations of features and labels appropriate for different contexts and interactions" (Gioia et al., 2000). Often the common core features of the organization's identity are retained, yet its identity mutates and adapts to meet the differing demands of multiple contexts and audiences.

In sum, identity claims make an entrepreneurial venture understandable to an external audience, as they typically describe the nature of the opportunity and market being pursued, the essence of what the venture stands for, and the entrepreneur's individual identity. According to Navis & Glynn (2011), identity claims, at various levels, distinguish an entrepreneurial venture from other organizations to promote its distinctiveness, while at the same time, connecting it with similar entities to enhance its legitimacy and understandability in the eyes of an external audience and resource providers.

Organizational life cycles

The biological metaphor of a life cycle has been central to describing the development and growth of organizations over time. Introduced first by Chandler in 1962, the literature on organizational life cycles suggests that organizations evolve and change in a predictable manner as they grow.[4] This literature conceptualizes organizations in four or five broad developmental stages. Although such stages are given different labels across various research studies, the stages

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2003), Boston trustees versus New York money managers (Lounsbury, 2007), and liberal arts colleges versus large research universities (Kraatz & Zajac, 1996).

[4] Since Chandler's (1962) introduction of a staged life cycle model of organizational growth, scholars have conceptually and empirically examined how managerial priorities (Smith, Mitchell, & Summer, 1985), indicators of organizational effectiveness (Quinn & Cameron, 1983), as well as organizational pressures, threats, and opportunities, vary with changes in life cycle stages (Anderson & Zeithaml, 1984; Dodge, Fullerton, & Robbins, 1994; Dodge & Robbins, 1992).

described tend to be similar in nature; therefore, the selection of a particular life cycle model is more semantic than substantive. All life cycle models convey similar ideas, yet the context within which different models were developed varies. Recognizing this, we adopt an organizational life cycle model for technology ventures proposed by Kazanjian (1988). Its specificity to technology-based ventures makes it the most relevant to our setting.

Kazanjian (1988) outlined four distinctive stages of technology ventures: conception, commercialization, growth, and stability. Since our primary interest is on legitimacy judgments pertaining to new ventures as opposed to established firms, we focus our theoretical arguments on the first three stages.

Conception, the first stage, is the period in which the people involved in a technology start-up focus on developing the technology underlying the product and creating a working prototype. Organizational structure and formality are nonexistent, as the focus is on proving the technical merits of the invention (Kazanjian, 1988). The conception stage of a technology venture is a critically important element of the entrepreneurship process (Reynolds & Miller, 1992). This is the stage in which a new venture's idea or core insight about a product or service opportunity is first conceived and developed; without this stage, there would be no entrepreneurship. In some instances, some elements of the conception stage may occur before a formal organization is formed (Katz & Gartner, 1988), but without the actions that underlie the conception stage, no organization would ever be formed.[5]

Technology ventures in the conception stage often operate within a university setting or affiliate themselves with a research institution. The identity of the venture may thus be tied to the

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[5] The conception stage can last anywhere from one month to 10 years (Reynolds & Miller, 1992), yet for technology ventures, the conception stage tends to be longer than for other types of new ventures because of the complexity and nuance involved in conceptualizing and developing a science- or technology-driven innovation as the basis of the entrepreneurial opportunity.

university in which it is conceptualized and to the individual identities of the founder(s) who are seeking to advance their research. Here, research is funded by university research budgets or government grants (e.g., the U.S. Small Business Innovation Research [SBIR] program or the Small Business Technology Transfer [STTR] program administered by participating government agencies such as the U.S. Department of Defense, National Science Foundation, etc.).[6]

Commercialization, the second stage, represents the phase when a venture's technology turns into a product or service for a market niche. At this stage, the organization exists (Katz & Gartner, 1988) and largely resembles a new product development team found in established organizations (Kazanjian, 1988). Entrepreneurs engage in a process to find a market for a technology and establish product-market fit (Ries, 2011). The focus is on ensuring that the proposed product concept works as designed, and initial product prototypes are refined to meet certain market needs (Blank, 2013; Fisher, 2012; Gaibraith, 1982; Waldron et al., 2013). Specific tasks within the organization are defined, and discrete organizational functions begin to emerge (Kazanjian, 1988). Technology ventures in the commercialization stage of the venture life cycle often move away from university facilities into more commercial facilities, and begin to garner resources from individual angel investors and/or from venture capitalists (VCs).

Growth, the third stage of a venture life cycle, is characterized by a sequence of functionally localized problems, as each function works to build an efficient and effective task system (Kazanjian, 1988). Typically, at this stage, the technical challenges associated with product development have been surmounted and the product has achieved a modicum of market success. Because ventures in this stage of development may require large infusions of capital to

[6] The SBIR and the STTR are U.S. Government programs initiated in 1982 and 1992, respectively. The goal of these programs is to facilitate the transfer of technology developed by a research institution through the entrepreneurship of a small business concern. Through FY2009, the SBIR program alone has allocated over 112,500 awards, totaling more than $26.9 billion, a significant amount of funding by any measure.

expand their operations and fund growth, capital may be sought in the public markets via a listing on a stock exchange (Martens et al., 2007). This stage persists until a venture reaches a growth rate consistent with market growth (i.e., the venture reaches maturity).

Previously, scholars have used the life cycle perspective to study various phenomena over time, such as power in organizations (Mintzberg, 1984), organizational politics (Gray & Ariss, 1985), human resources management (Milliman, Von Glinow, & Nathan, 1991), firm networks (Hite & Hesterly, 2001), and stakeholder theory (Jawahar & McLaughlin, 2001). Following the same tradition, we apply the life cycle perspective to better understand organizational legitimacy and identity challenges over time.

THE PROPOSED CONCEPTUAL FRAMEWORK

The theoretical paradigms discussed above provide a foundation for a conceptual framework for entrepreneurial resource acquisition over time. For a venture to be judged as legitimate, its identity claims must align with the *institutional conventions*—i.e. the norms, values, beliefs, and definitions—of the socially constructed system governing the audience that is making legitimacy judgments. As Navis & Glynn (2011: 485) point out:

> [Adhering to] conventions in their identity claims helps entrepreneurs "identify with other actors, values, or symbols that are themselves legitimate" (Ashforth & Gibbs, 1990), thereby enhancing the legitimacy of the entrepreneurial endeavor (e.g., Aldrich & Fiol, 1994; Glynn & Marquis, 2004; Suchman, 1995). Deviation from these conventions, however, or not adapting when such conventions change, can put legitimacy at risk.

Organizational life cycle theory dictates that the needs and challenges faced by a new venture will change over time (Chandler, 1962). Each stage in a venture's life cycle gives rise to new resource needs and different resource acquisition challenges (Quinn & Cameron, 1983; Reese & Aldrich, 1995). With those shifts, new audiences become important as the primary resource providers. The different audiences providing resources to entrepreneurial ventures operate under different socially constructed institutional conventions. Therefore, perceptions of venture legitimacy change as a venture develops.

Early resource providers—such as friends and family or administrators of university research grants—generally operate in socially constructed systems characterized by social, "identity-based ties" associated with family relationships or academic activity. However, later resource providers—such as venture capitalists or institutional investors—are characterized by market-based and "calculative ties" (Hite & Hesterly, 2001). Compared with early stage resource providers, later stage providers generally have clear economic goals, definitive investment mandates, better market reach, and a superior ability to help a new venture mitigate growth-related challenges (Hite & Hesterly, 2001; Woolcock, 1998). Thus, as a venture develops, actors with different motivations and risk-reward profiles are better equipped to provide the resources necessary to support its growth (Berkery, 2007; Hite & Hesterly, 2001).

To demonstrate how the central ideas proposed here manifest, we consider the evolution of a venture founded to exploit a technical breakthrough based on academic research. Such ventures, referred to as "university spin-offs" or "academic entrepreneurship." have been key drivers of innovation in the technology sector. Such firms are often vehicles to commercialize technology invented by a university. They are usually highly innovative, and in contrast to many other types of entrepreneurial ventures, often have strong inventive capacity (Libaers, Hicks, & Porter, 2010). Such ventures have been the focus of prior academic research (e.g., Colyvas & Powell, 2007; Haeussler & Colyvas, 2011; Shane, 2004) and of popular books on entrepreneurship (e.g., Hughes, 2011; Lewis, 1999). Prominent examples of such firms include Google, Genentech, Netscape, Silicon Graphics, and Lycos. Table 1 provides a summary of the different socially constructed systems governing the legitimacy judgments of resource providers to technology ventures founded in a university setting. Next, we elaborate on the content of the columns presented in Table 1 and outline the legitimacy assessment criteria associated with each life cycle stage.

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Conception stage

During the conception stage, researchers and entrepreneurial scientists develop or work with emerging technological inventions. A majority of early stage technology ventures leveraging academic research rely on financial grants (e.g., SBIR/STTR funding, and/or university research grants) to establish technical viability (Branscomb & Auerswald, 2002; Elston & Audretsch, 2011). Therefore, the audiences making legitimacy judgments at this stage are often grant administrators and/or university professors, or scientists with domain expertise. Operating within a socially constructed system centered on academic research and scientific advancement, grant administrators and expert evaluators act as gatekeepers for research grants, and are motivated to advance science to benefit society. They are socialized to embrace and extend a “logic of science” (Dunn & Jones, 2010; Sauermann & Stephan, 2013), which emphasizes the pursuit of basic scientific knowledge, the need for research freedom, and open disclosure of findings (Dunn & Jones, 2010; Fini & Lacetera, 2010; Murray, 2010; Perkmann, King, & Pavelin, 2011; Sauermann & Stephan, 2013). Column 1 of Table 1 reflects important institutional conventions of the socially constructed system governing resource providers in the conception stage of a technology venture.

The primary goal of resource providers in the conception stage is to support long-term technological progress that enhances societal welfare with limited regard for immediate commercial applications and market outcomes (Dosi, 1982). Grant administrators employing this motivation, and operating under academic professional norms, emphasize a project’s "*technological plausibility"*, the technical reputation of team members, the status of their affiliated institution, and compliance with scientific practices as part of their legitimacy assessment. Technological plausibility refers to the perception that the technological challenges associated with the project can be successfully resolved; such an assessment is often based on the project's "scientific relevance and scientific merit" (Maurer & Ebers, 2006: 273), which in turn stems from grasping the current technological paradigm and proposed technical trajectories (Dosi, 1982) needed to achieve desired outcomes.

Uncertainty regarding a venture's quality is the highest during this stage, given that both the technology and the market segments on which the venture will focus, are evolving. Hence, ventures in the conception stage, lacking tangible performance metrics (e.g., financial revenues, cash flows, and market-share) rely most heavily upon symbolic affiliations and adherence to processes that are familiar and understandable to resource providers.[7] Accordingly, the team's academic reputation and the status of their affiliated institution act as signals of quality during early stages (Stuart, Hoang, & Hybels, 1999). A team with a history and reputation for scientific integrity, creativity, and breakthroughs provides potential funders with the confidence that technical challenges will be successfully identified and addressed. Affiliation with a high-status institution also signals quality and provides a sense of familiarity that promotes legitimacy.

Compliance with academic norms includes knowledge generation through openness (form and process) and the advancement of societal goals (outcomes). Resource providers embedded in the academic community favor ventures that have the potential for technological breakthroughs or scientific advances that serve the larger public interest. The rationale used for funding a new technological venture may include meeting national security needs, improving the

[7] We thank an anonymous reviewer for encouraging us to discuss this issue.

environment, or stimulating economic growth through knowledge spillovers or job creation (Branscomb, Morse, & Roberts, 2000; Dosi, 1982). The criteria that grant administrators use to evaluate legitimacy at this stage include an assessment of whether it can create public benefits, as defined by non-excludability and non-rivalry (Olson & Olson, 2009), and conform to academic norms pertaining to citation and scientific disclosure in its grant proposal (Sauermann & Stephan, 2013). The focal legitimacy criteria for ventures at the conception stage are summarized at the bottom of column 1 in Table 1.

Commercialization stage

As a venture develops its technology, critical technical problems are often identified and resolved, thus decreasing the associated technological risks (Kazanjian, 1988). Entrepreneurs then shift their focus to lowering the market risk, which refers to the “uncertainties attributable to competitors and consumer responses and by all the other factors that together determine venture outcomes” (Branscomb et al., 2000: 14).

Typically, government programs such as SBIR grants do not fund technology commercialization proposals at this stage, and instead encourage entrepreneurs to obtain funding from private investors. At this stage, angel investors and venture capitalists (VCs) become attractive funding sources. VCs and angel investors seek significant medium-term (e.g. seven to 10 year time horizons) financial returns from investments exits (e.g. IPO or sale) at some uncertain future point in time. They participate in building ventures and look for opportunities to enhance the value of the firms in which they are invested as they manage their investments. To find good investments, they use market-related criteria. In so doing, they consider proprietary knowledge and resources, the nature of the competition, financial projections, the entrepreneurial reputation of the management team, and the time horizons required for successful market commercialization of technology (Berkery, 2007; Hall & Hofer, 1993; MacMillan, Siegel, & Narasimha, 1986).

Within the social system governing VCs and angel investors, norms are dictated by long term self-interest (Thornton, Ocasio, & Lounsbury, 2012). Power and authority stems from equity percentages, which is often linked to representation on the board of directors. The goal is to generate superior economic rents while recognizing the need for patience in realizing such gains, since investments can remain illiquid for a relatively long period (Gompers, 1995). The key dimensions of the socially constructed system governing the legitimacy judgments of VCs and angel investors who contribute resources to technology ventures in the commercialization stage of development are reflected in column 2 of Table 1.

Since angel investors and VCs focus on medium to long-term market opportunities, legitimacy assessments focus primarily on whether, over time, they can reap above-average market returns through their investment in the venture. Though the level of uncertainty regarding the venture's quality in the commercialization stage is lower compared to the conception stage as most of the technological risks have been mitigated, this stage still requires entrepreneurs and investors to bear considerable uncertainty. However, the nature of the symbolic mechanisms used to make legitimacy claims often begin to shift from primary reliance on the founder(s)' human capital and preexisting ties to the venture's own history of accomplishments (Hallen, 2008). Indeed, tangible performance metrics become increasingly relevant in this stage. Hallen and Eisenhardt (2012) describe how entrepreneurs are able to effectively signal legitimacy for raising venture capital by timing the fundraising around demonstrable "proofpoints", which they define as "a positive signal of substantial venture accomplishment of a critical milestone that is confirmed by key external (not internal) actors" (p.46). Proofpoints resolve a critical uncertainty by serving as demonstrable evidence of the venture's capabilities; their influence is amplified when the achievement is recent. Legitimacy assessment criteria also include a potentially large and realizable customer base, as this signals the likelihood of generating significant economic value (Bhide, 2000). Thus, an entrepreneur's ability to persuade investors that the team assembled can capture a significant portion of a large identified market determines the venture's accorded legitimacy (Roberts & Barley, 2004). Here, the venture's business model and the financial projections that stem from it, along with its competitive strategy, become salient points for consideration, discussion, and debate (Hsu, 2008).

VCs and angel investors give primacy to protecting intellectual property (IP) and appropriating rents through the creation of private goods (Powell, 1998). IP is regarded as a source of competitive advantage, and the exploitation of private goods is the basis for generating economic rents. VCs and angel investors perceive a technological venture to be more legitimate if it is strategically positioned to protect and exploit its IP (generally via patents). Hence, venture legitimacy assessments hinge on whether the venture has developed private goods that may be protected and exploited for pecuniary benefits, along with an assessment of the team's ability to execute. The key legitimacy criteria for ventures at the commercialization stage are summarized at the bottom of column 2 in Table 1.

Growth stage

A technology venture at the growth stage often requires financial resources to expand its human resource base, cover production costs, and service a growing customer base (Kazanjian, 1988).

Fischer and Pollock (2004: 464) describe the shift from private to public ownership as a "highly significant and nonrepeatable" transformational event in an organizations' life cycle that inevitably necessitates a modification of its goals, boundaries, and/or activity systems. The risks arising from this event are enough to reset the organization's liabilities of newness clock and re-expose the organization to the risk of failure as it adapts its existing strategies, internal operational and administrative processes, and external ties and relationships to new sets of expectations (see also, Amburgey, Kelly, & Barnett, 1990).

In this stage, ventures seek a broader base of financial resource providers, primarily institutional investors, by preparing an initial public offering (IPO).[8] Accordingly, institutional investors that manage portfolios of investments in publically traded companies become the primary audience for a technology venture—at least before the venture's stock is widely available to the general public (once trading officially begins on a trading exchange).[9]

During this stage, technology and market risks are significantly reduced. Hence, legitimacy assessment criteria in this stage shift significantly away from merely symbolic mechanisms (though they still continue to matter, as demonstrated by Chen, Hambrick, & Pollock, 2008) towards tangible performance metrics, such as evidence of financial returns using accepted accounting practices (Rajgopal, Venkatachalam, & Kotha, 2003). Institutional investment managers seek short-term financial returns because their performance is measured via increases in portfolio value generated on a quarterly or annual basis. Therefore, they make

[8]Another common strategy is to be acquired. An acquisition often involves erasing the identity of the new venture as a standalone entity and hence falls outside the scope of our theoretical analysis. Alternatively, a technology venture may seek to grow organically using internally generated cash flows instead of external capital. In such an instance, growth can be slower than if external funding is accessed. Additionally, the primary audience for the venture will not change as dramatically; therefore, the issues discussed here may not be as prevalent for ventures adopting such a strategy.

[9]At least initially, the 'roadshow' that precedes the IPO and the S-1 documents submitted to the SEC are geared toward underwriters (investment banks) and informed investors. Market exchanges (e.g. NASDAQ, NYSE) may also espouse certain institutional conventions that get intertwined with the conventions of investors in determining the norms and criteria by which a venture is judged in the growth stage. To simplify the scenario for the purpose of building theory, we make no attempt to disentangle the institutional conventions of investors and the market exchange where a venture is listed. We thank an anonymous reviewer for bringing this to our attention.

resource allocation decisions based on short-term self-interest and risk mitigation approaches. The information reported in S-1 documents, including measures of past performance and the financial and market forecasts for a firm, is central in institutional investors' assessments (Loughran & McDonald, 2013; Martens et al., 2007). The key dimensions of the social system governing institutional investors are reflected in column 3 of Table 1.

Firms seeking funds in the public markets are required by the Securities and Exchange Commission (SEC) to make public their financial accomplishments, management's discussion of their competitive environment, and risks associated with the venture (Loughran & McDonald, 2013). The legitimacy assessment criteria of a venture during this stage centers on past and anticipated future financial performance, communicated primarily via S-1 documents.

Once public, the entity is managed by a board of directors who are, in turn legally required to follow SEC rules and regulations. As a public entity, a venture's legitimacy is evaluated by its ability to balance the interests of diverse stakeholders, including employees, suppliers, customers, investors, and society as a whole (Jawahar & McLaughlin, 2001). A corporation's continuing success depends upon management's ability to create and satisfy the demands of multiple stakeholder groups (Freeman, 2010). As Clarkson (1995: 112) argues, "the economic and social purpose of the corporation is to create and distribute increased wealth and value to all its primary stakeholder groups." Similarly, Jones and Wicks (1999: 207) state that "the interests of *all* (legitimate) stakeholders have intrinsic value." Thus, if a firm neglects or disregards a stakeholder group, it risks losing their normative approval, and as a result its legitimacy can be called into question. The focal legitimacy criteria needed are summarized at the bottom of column 3 of Table 1.

The discussion so far provides the foundation to predict and explain systematic organizational legitimacy challenges for growing ventures over time.

IMPLICATIONS OF CHANGING LEGITIMACY CRITERIA

Here we build on the analysis provided above to yield novel conceptual insights central to managing legitimacy in new ventures. The principal insight derived from our analysis is the notion that new ventures face multiple legitimacy thresholds through the course of their life cycle. We then identify three key factors that can inhibit or enable entrepreneurs' efforts to cross those thresholds: (1) institutional pluralism, (2) venture-identity embeddedness, and (3) legitimacy buffering.

Multiple legitimacy thresholds

Zimmerman and Zeitz (2002) have proposed that there exists a "legitimacy threshold" which marks a critical milestone in a venture's chances of survival and sustenance. At levels below this threshold, ventures face an existential threat arising from the lack of legitimacy. However, once the threshold is crossed, legitimacy and the concomitant flow of resources significantly increase a venture's ability to survive. The notion of a threshold represents attaining legitimacy as a single, fixed, and stable point that is independent of the venture's stage of development. It portrays the legitimacy challenge to be noteworthy primarily during a venture's early stage. Figure 1a shows a graphical representation of this view.

------- Insert Figures 1a & 1b about here -------

We suggest that a more nuanced and complete understanding of the legitimacy threshold can emerge when the heterogeneity in the audiences making legitimacy judgments is recognized. Since such audiences change systematically over time, and different audiences have different institutional conventions, the criteria used to assess venture legitimacy should also change systematically. Therefore, ventures face multiple legitimacy thresholds as new criteria are used to evaluate them.

A significant factor influencing whether an audience judges an entity to be legitimate or not is the audience's *expectation* for what that entity should look like (Ridgeway & Berger, 1986). The expectations placed on a venture become increasingly complex and challenging as it becomes established. Since audiences often compare a venture against a cohort of similar organizations in the same life cycle stage, over time, it is evaluated against more developed, mature, and established organizations (Boeker & Wiltbank, 2005; Slevin & Covin, 1997). Therefore, the criteria for legitimacy not only differ compared to ventures in the earlier stages of development, but the criteria may also become more stringent as the venture evolves and grows. Such expectations put pressure on firms to adapt and change to effectively compete for the resources provided by external audiences.

Vohora, Wright, and Locket (2004) describe shifts in expectations for firms that move from the conceptualization stage in a university setting to the commercialization stage in which VCs evaluate them with the prospect of providing resources. As one of the VC informants in the Vohora et al. study reported, "…the fundamental problem is that what universities have is not what VCs want to receive. Universities have lots of well-developed technologies but with little proof of concept, no proof of market, and no commercial management. In general there isn't the commercial expertise or resources within universities to overcome these deficiencies and develop an opportunity that is fundable" (p. 156).

These sentiments are also echoed in Fischer and Pollock's (2004: p.464) description of the differing expectations placed on firms as they transition from private to public companies. These authors (p. 464) note that when firms transform into public entities they require more formal governance procedures, encounter different reporting requirements of the Securities and

Exchange Commission, and are faced with increasing demands from investors for short-term performance, and less tolerance of negative press and performance volatility. Additionally, newly public firms face scrutiny from an even more diverse array of stakeholder groups with differing demands that, at times, can be conflicting. These divergent (and at times increasing) expectations from multiple audiences are important drivers that cause a venture's identity to become increasingly complex over time, eventually consisting of "constellations of features and labels appropriate for different contexts and interactions" as it grows into a mature organization (Gioia et al., 2000).

We argue that the varying expectations from different audiences evaluating a venture over its life translate into multiple legitimacy thresholds for that venture. Figure 1b illustrates our proposed model of multiple legitimacy thresholds over successive stages of a venture's life cycle.

An example demonstrating the existence of multiple legitimacy thresholds comes from the case of Monitor110, a company focused on providing data- and information-gathering services. The venture received early acclaim but failed to secure continued funding for its operations and was forced to shut its doors in July 2008 (Kafka, 2008). Following the demise of Monitor110, Roger Ehrenberg, a co-founder of the company, highlighted how audience expectations for the company seemed to change as the venture grew. On his blog (Ehrenberg, 2008), he reflected that within the venture they initially described their product development philosophy as "release early/release often." However, they became "scared of looking like idiots in front of major Wall Street and hedge fund clients," who they perceived to have different expectations for the company as it grew. The venture was featured on the front page of the *Financial Times,* which "raised the level of expectations so high that it made us reluctant to release anything that wasn't earth-shattering." Monitor110 therefore delayed the release of new products and in so doing, "we lost our intimacy with the customer… falling into the classic trap of pursuing a 'science project,' not building a commercially salable product," says Ehrenberg.

This example illustrates that, despite attaining legitimacy in the conception and commercialization stage, Monitor110 faltered in the growth stage as the organization was distracted and confused by the changing expectations from its new audience (the analysts from Wall Street firms). This caused it to lose sight of its customer's needs and to adopt strategies that eventually caused it to fail.

The above discussion illustrates how the perception of increased audience expectations and inability to deliver on those expectations can be a major contributing factor to a venture's demise. Thus, we conclude that a growing venture must meet multiple legitimacy thresholds established by different organizational audiences, each of which place increasing expectations and demands on the venture. Next, we identify three key insights that impact entrepreneurs' efforts to cross those thresholds.

Institutional pluralism

We have previously argued that, over its life cycle, a venture often needs to successfully satisfy multiple, unrelated resource providers to successfully evolve and grow (Bhide, 2000; Lewis & Churchill, 1983). To meet the evolving expectations of different resource providers, the entrepreneurial identity of the venture must appeal to the demands of differing audiences. However, changing an organization's identity is a drawn out, challenging, and complex process (Brown & Starkey, 2000; Gioia & Thomas, 1996; Nag et al., 2007). Therefore, for a period of time, as a venture makes its transition from appealing to one type of audience in one socially constructed system of values, beliefs, and norms to the next, it will be subject to *institutional* *pluralism*: "Institutional pluralism is the situation faced by an organization that operates within multiple institutional spheres. If institutions are broadly understood as 'the rules of the game' that direct and circumscribe organizational behavior, then the organization confronting institutional pluralism plays in two or more games at the same time" (Kraatz & Block, 2008). Confronting and managing institutional pluralism may create significant challenges for entrepreneurs as their ventures traverse multiple legitimacy thresholds.

Institutional pluralism in growing ventures results from the persistent influence of vestigial institutional conventions from the previous life cycle stage on the identity of a venture, and the gradual adoption of institutional conventions salient to the new stage. This can lead to a venture portraying disparate identity claims in different parts of its operating environment so as to meet the demands of different (old and new) audience expectations (Kraatz & Block, 2008). Accordingly, ventures may grapple with having to portray different organizational narratives (Lounsbury & Glynn, 2001) and management practices (Zott & Huy, 2007) in an attempt to satisfy the pluralistic demands of multiple audiences. Figure 1b illustrates how a venture transitions from one stage to the next, and depicts the potential for institutional pluralism that may arise during such transitions.

Operating under conditions of institutional pluralism in periods of transition from one venture life cycle stage to the next may be challenging and problematic for new ventures for three reasons. First, institutional pluralism makes it difficult for the individuals within a venture to definitively and unambiguously answer the identity-related questions of "who we are" and "what we do" (Navis & Glynn, 2011). For example, Ravasi and Schultz (2006) describe how the radio manufacturer, B&O, was induced by competitive threats and environmental changes unfolding over its life cycle to re-examine its identity and reevaluate beliefs about what was core and distinctive about the organization; a process which ultimately culminated in a revision of its formal identity claims. Second, as the individuals in an organization make claims to satisfy members of one audience group, members from another audience group may be exposed to such claims and apply different, less favorable, subjective values to such claims (Glynn, 2000; Golden-Biddle & Rao, 1997). In other words, efforts to validate one identity may invalidate another. Third, a venture may be perceived as inconsistent and unreliable, as its identity claims shift and change under conditions of institutional pluralism. Organizational actions that appear to violate prior commitments can have a powerful de-legitimizing effect on the organization (Kraatz & Block, 2008).

Powell and Sandholtz (2012) provide several examples of biotechnology entrepreneurs and ventures facing institutional pluralism as they cross between academia and industry, and encounter the contradictory expectations of the scientific and business communities. The tortuous nature of the personal conflicts that emerge when academic norms collide with norms of commerce as scientists pursue biotech ventures is vividly described by Tom Maniatis, a professor of molecular biology at Harvard and cofounder of Genetics Institute:

> (It's) fascinating to see the effect on the minds of all these scientists—the worry about whether you should dive into the money pile or whether the pile is dirtying everybody . . . Over the years the sense of academic purity is something which developed out of necessity . . . since there was no money a sense of saintlihood was required in the situation. Now it's not required (Hilts, 1981: A1, cited in Powell & Sandholtz, 2012: 105-106).

Ventures that inappropriately invoke identity claims of a prior stage for an audience in the next stage can run into difficulties, as new audiences can ascribe a different meaning to the language and symbols used to garner legitimacy (Kraatz & Block, 2008; Pratt & Foreman, 2000). For example, during the conception stage, the publication in a scientific journal of the key scientific breakthrough underlying a technology commercialized by a start-up is likely to be deemed desirable and appropriate by early-stage resource providers, such as university and governmental grant-making agencies. However, the VC community, focused on protecting IP and competitive advantage, actively discourages such open disclosure (Powell & Sandholtz, 2012). The trade-offs involved in publishing in scientific journals, when working in a start-up context, are succinctly described by David Jackson, a tenured molecular biologist at the University of Michigan:

> It takes a lot of time to publish stuff, and (at Genex) we were always under enormous time pressure to meet various milestones. And there was a concern about disclosing stuff prematurely, before we'd really had a chance to capitalize on it (quoted by Powell & Sandholtz, 2012: 109).

The above arguments and examples suggest that entrepreneurs face pluralistic demands during a transition phase, and therefore are particularly vulnerable to having their identity claims and actions misconstrued by resource providers operating with divergent sets of institutional conventions in different socially constructed systems. This can cause the venture to be perceived as illegitimate, adversely impacting its prospects for acquiring much needed resources and casting it in a negative light with those that have provided resources in the past. Hence, the legitimacy of a venture can be threatened in the drawn-out periods of transition from one venture life cycle stage to the next in which a venture must operate under conditions of institutional pluralism. During these times, entrepreneurs need to be highly cognizant of which audiences are paying close attention to their identity claims and actions, and should carefully consider how different audience groups interpret their actions given their development stage.

Venture-identity embeddedness

Addressing institutional pluralism during periods of transition can be challenging. During transition periods, the ambiguities about appropriate identity claims and actions for a growing venture can put that venture in a tenuous position. Miller and Friesen (1980: 592) note that organizations "appear to be biased in their direction of evolution so that they generally extrapolate past trends." This resistance to change that arises out of an unwillingness to raise questions about an organization's identity has been called organizational inertia (Kelly & Amburgey, 1991). Entrenched relationships, beliefs, norms, values, and attitudes from vestigial audience expectations can slow down and sometimes prevent organizations from adapting to the expectations of the next life cycle stage. Maurer and Ebers (2006) identified two forces—*relational lock-in* and *cognitive lock-in*—as key mechanisms responsible for this inertia. Relational lock-in refers to the obligations of an actor to others within a specific community, stemming from strong social ties and norms of reciprocity within that community (Maurer & Ebers, 2006). Its double-edged nature is described by Gulati, Nohria, and Zaheer (2000) who explain how embedded network ties can provide firms with unparalleled access to information and resources, while also potentially locking them into unproductive relationships or precluding them from forging ties across network boundaries (Baker & Nelson, 2005). Cognitive lock-in, on the other hand, refers to constraints in an actor's motivation, capacity, and competence to adopt new cognitive schemes, stemming from a strong shared identity with others in a particular domain (Maurer & Ebers, 2006). Because the identity of an entrepreneurial venture is often attached to the identity of its founder(s), pressures to change the identity of a venture may also translate into personal identity threats for the founder(s) (Cardon, Wincent, Singh, & Drnovsek, 2009; Fauchart & Gruber, 2011).

Relational and cognitive lock-in can cause entrepreneurs to resist changing their venture's identity claims and associated operating practices, narratives, and symbols during the transition period from one venture life cycle stage to the next. This resistance exacerbates the cognitive dissonance that arises when a new set of legitimacy criteria are promulgated by future resource providers during the transition phase. Since organizational members often form a cognitive attachment to the prevailing organizational identity and internalize the prevailing organizational logic, cognitive dissonance and confusion among members may result when inconsistencies arise between the new and old standards of behavior (Dutton et al., 1994;

Thornton et al., 2012). The greater the degree of relational and cognitive lock-in, the greater the degree of cognitive dissonance faced by members during the transition phase. These conditions can hamper and slow down decision making within the organization (Albert & Whetten, 1985). Additionally, the resulting appearance of a diffused organizational identity can make it difficult for audiences to evaluate the appropriateness of the venture as a desirable target for resources (Powell & Sandholtz, 2012).

Maurer and Ebers (2006) have highlighted how such embeddedness impacts biotech firms transitioning from the conception to the commercialization stage. They found that firms characterized by teams of strong academic scientists, who greatly bolstered the legitimacy of a focal start-up during the conception stage, often faced greater difficulty in transitioning to the demands and expectations placed on their venture in the commercialization stage, as the scientists' prevailing identities militated against the demands and expectations of business-oriented VC audiences.

One can also observe examples of venture-identity embeddedness during a venture's transition from the commercialization to the growth stage in a contemporary start-up history. The case of Groupon, Inc. helps illustrate our arguments.[10] Launched in 2008, Groupon quickly attained prominent start-up status with a private venture valuation running into billions of dollars for multiple rounds of VC funding. But a year after its highly anticipated IPO in 2011, Groupon faced a reversal of fortunes: its stock price declined by half and it was forced to issue an embarrassing and damaging restatement of its financial statements in its S-1 filings (Duryee, 2011). Andrew Mason, Groupon's founder and ex-CEO, noted that Groupon failed to anticipate

[10] We recognize that Groupon was not founded in an academic setting; therefore its transition from conceptualization to commercialization does not fit perfectly within our framework. However, its transition from commercialization to growth, as it moved from a private to a public company, was well documented and it provides salient illustrations of the concepts discussed and the generalizable nature of our arguments.

the changes in audience perception and evaluation criteria that accompanied the shift from private to public ownership. The venture's new audience emphasized short-term revenues and financial results, in contrast to the longer-term focus and emphasis on innovation that characterized its prior stages. According to Mason, "The moment a company goes public, the conversation shifts from how it's trying to change the world and the product it's building to how it's making money" (Spiers, 2013).

Groupon's failure to foresee the change in audience legitimacy criteria led to major challenges. In its S-1 document, rather than following SEC guidelines for financial reporting, it used an "unconventional accounting" metric, ACSOI (adjusted consolidated segment operating income), which Groupon felt better reflected its business model. Using the ACSOI suggested a net gain in Groupon's operating income, whereas the use of SEC metrics would have resulted in Groupon reporting a loss. The public criticism that followed forced Groupon to restate its earnings using standard SEC mandated GAAP accounting practices. Mason explained the debacle as follows:

> [A]t the time we were in a different world. We were the darlings of the tech world. Everything had gone our way, and we thought, 'We'll put this metric [ACSOI] in here because we think it's helpful'. And people were like, 'We think you put this metric in here because you're evil.'…That was us not realizing what we were … going public (Spiers, 2013).

These examples illustrate that periods of transition can blur an organization's identity, adversely impacting internal decision making as well as hampering external evaluation. When entrepreneurs and internal decision makers identify strongly with the institutionalized conventions of an earlier lifecycle period, they may find it difficult to adapt their venture's identity when those conventions—and their associated audience expectations—change.

Making the necessary adaptations is likely to be most difficult for ventures that are perceived as highly legitimate by audiences in the prior stage of development. Such ventures garner positive feedback (e.g. funding, support, positive media coverage, and accolades) in that stage, reinforcing the notion that the venture is engaged in the appropriate activities, practices, and relationships to make it successful. Such positive feedback from audiences can prompt the individuals at the venture's helm to escalate their commitment to the entrepreneurial identity embraced by it in that stage (Staw, 1981). This commitment stems from a connection with what seems to be a successful course of action. In so doing, the people in the venture can become resistant to changing their course of action (Brockner, 1992), even though the expectations of the audience from whom they get key resources have changed. Those ventures that are not looked on as favorably by an audience in a prior stage of development will likely be more open to adapting their identity claims and associated practices, symbols, and narratives to comply with changed audience expectations as they transition to a new stage of development. Thus, we conclude that higher levels of legitimacy in a prior life cycle stage can lead to higher venture-identity embeddedness, making it difficult to for a venture to adapt to meet the legitimacy requirements of the next stage. Both institutional pluralism and venture-identity embeddedness serve as key inhibitors when entrepreneurs' attempt to traverse multiple legitimacy thresholds that confront growing ventures. In contrast legitimacy buffering, which we discuss next, may operate as a key enabler for such entrepreneurs.

Legitimacy buffering

Legitimacy is not only a way to garner resources, but when accumulated, it also serves as an important resource in its own right because it enables a venture to attract other resources such as stakeholders, employees, and financial capital (Suchman, 1995; Zimmerman & Zeitz, 2002). Also, as a resource, legitimacy is fungible and can be transferred to other settings with different audiences making legitimacy evaluations. Suchman (1995: 596) describes the fungible nature of legitimacy by pointing out that “organizations may stockpile goodwill and support,” such that over time "management can occasionally deviate from social norms without seriously upsetting the organization's standing" (Ashforth & Gibbs, 1990: 189 , as cited by Suchman). Applying this to the context of new ventures, a university spin-off venture that receives prestigious grants and is associated with a well-known academic institution during the conception stage will likely carry this legitimacy over to the commercialization stage, in which it will interact with a new audience governed by different institutional norms. In other words, assets such as positive media attention, supportive stakeholder relations, and a reputation for excellence (i.e., technological prowess) achieved in one setting can provide a strong foundation for building legitimacy and relationships in a different setting. Past successes may therefore benefit a venture as it moves forward, even if they relate to different audience expectations (Merton, 1968). Thus, we propose that when ventures are perceived as highly legitimate in one setting, audiences often grant greater allowance or a “buffer” to such ventures to deviate from the established norms required in the new setting.

Facebook, Inc.’s transition from a private to public entity illustrates this phenomenon vividly. As Facebook transitioned to a public company (IPO filed in May 2012) and embarked on a roadshow to woo analysts and institutional investors, Mark Zuckerburg, founder and CEO, ignored and even rejected some of the expectations of these resource providers and influencers in the public markets. Mr. Zuckerburg continued to wear a hoodie sweatshirt to important interviews, violating the norms and expectations of Wall Street analysts and prompting one investor to say:

> He’s actually showing investors he doesn't care that much. … I think that’s a mark of immaturity. I think that he has to realize he’s bringing investors in as a new constituency right now, and I think he’s got to show them the respect that they deserve because he’s asking them for their money (Gross, 2012).

Moreover, analysts and institutional investors expect a publicly listed company's CEO to describe their organization's revenue model and respond openly to questions about revenue prospects and performance. Mr. Zuckerberg defied these expectations by not adequately describing Facebook's revenue model and failing to actively engage with Wall Street analysts. This forced resource providers to draw their own conclusions about Facebook's direction and prospects, prompting one investor to remark, "The challenge for Facebook executives is to persuade the market that it is not a fad and that its managers have a blueprint for making money" (Sengupta, 2012). While these behaviors caused some large resource providers and influential analysts to call the company's legitimacy into question (Sengupta, 2012), the company still raised $16 billion from its IPO, and the stock price closed above the opening price.

This example illustrates a case where, even though the entrepreneur (here, Mr. Zuckerberg) flouted norms and expectations of the focal institutional context (Wall Street analysts), the venture was never perceived as illegitimate, because in its previous stage it established a high level of legitimacy among key organizational audiences (angel investors, VCs, and financial institutions). Therefore, we assert that the higher the legitimacy of a venture in its prior life cycle stage, the greater the legitimacy buffer it inherits to satisfy the legitimacy threshold and successfully transition to the next stage in its life cycle.

The legitimacy that serves as a buffer for a new venture as it transitions from one life cycle stage to the next may come from a variety of different sources. An entrepreneurial venture may build up stocks of legitimacy because of the positive *reputation of the people* within the venture, *prior organizational achievements*, and/or because of the positive *reputation of the venture's resource providers* in a prior stage of development. Navis and Glynn (2011) described how the legitimacy of an entrepreneurial endeavor stems from the attributes of a founding team and/or from the attributes of the organization that they have created.

A potent example of how an individual may create stocks of legitimacy for a new venture is captured in Michael Lewis's (1999) book *The New New Thing* in which he describes how Jim Clarke, the fabled Silicon Valley serial entrepreneur, was able to generate legitimacy for his next venture, solely on the basis of his reputation:

> Sand Hill Road was where the V.C.'s clustered together for safety, like ducks in a park waiting for the breadcrumbs to fall. Each time Clark made this trip the ducks came out of it worse than the time before—the price of the crumbs rose, and they had to quack louder for them. (Lewis, 1999: 101)

Stocks of legitimacy based on organizational achievement may be based on prior product accomplishments or awards (Hallen, 2008; Hallen & Eisenhardt, 2012). For example, certification contests, such as those described by Rao (1994) which tested the relative reliability and speed of various cars in the early years of the automobile industry, provided benefits for car manufacturers into the future. Finally, the reputation of existing investors in a venture may also serve as a buffer, amplifying a venture's legitimacy in subsequent life cycle stages. For example, Lee, Pollock, and Jin (2012) found that VC reputation in the early rounds of investment (e.g. Series A investment) had a significant impact on the initial market evaluations of that venture at IPO.

The existence of a legitimacy buffer not only provides a venture with the time and resources to adapt its entrepreneurial identity to the expectations of a new audience as it transitions from one life cycle stage to the next, but it may also create an occasion for sensemaking by enabling otherwise taken-for-granted expectations to be revisited and perhaps altered (Weick, 1995). Where a venture has high legitimacy with one audience, and those stocks of legitimacy are carried over to another audience, the freedom the venture enjoys with its new audience may prompt it to do things differently, which could serve as a signal to the audience that there is an alternative way to achieve desired outcomes.

For example, Google's high level of legitimacy at the time of its IPO, because of its success as a VC backed academic spin-off, enabled it to overcome a weak IPO market to generate a solid first-day return and an initial market capitalization of $27 billion (Levy, 2014). It did so despite an unproven offering model (a modified "Dutch auction") and an ill-timed interview with its founders in *Playboy* magazine during the so-called "quiet period" prior to its IPO. However, its unconventional IPO strategy drew enormous criticism at the time (Weinberg, 2004), and its ill-timed interview drew the attention of financial industry regulators. Industry experts concur that a firm lacking Google's brand recognition and consumer appeal is highly unlikely to have succeeded under similar circumstances (Hensel, 2005; Levy, 2014). Most interestingly, Google's interview with the editors of *Playboy* triggered a discussion about the norms of company communications with potential investors during the quiet period prior to an IPO. In a short time following this interview, the Securities Exchange Commission (SEC) updated the rules regarding this quiet period.[11] Under the new guidelines, firms are now permitted to publicly update their activities via press releases and interviews with media intermediaries. In this rare instance, the industry norms that surround firm communications during the quiet period were changed in the aftermath of an IPO.

Hence we propose that when a venture is perceived as highly legitimate in one venture life cycle stage, audiences in the next life cycle stage will grant a "buffer" to such ventures to deviate from and adapt to institutional conventions pertaining to the next life cycle stage. In rare

[11] Section 5 of the United States Securities Act of 1933 limits what information a company and related parties can release to the general public from the time a company files a registration statement with the SEC until the agency declares the registration statement effective. This statute was enacted to protect uninformed investors. Previously, because SEC's guidelines pertaining to IPO regulations were vague, some firms exploited this lack of clarity to market their IPOs excessively while others did little to share company-related information.

instances where a venture has very high stocks of legitimacy in a prior life cycle stage, it may use its legitimacy buffer to challenge the taken-for-granted expectations and institutional conventions of the new life cycle stage.

In summary, the core insight from this conceptual inquiry is that new ventures confront multiple legitimacy thresholds as they grow and develop. As growing ventures confront those multiple thresholds, the entrepreneurs at the helm of such ventures encounter challenges related to *institutional pluralism* and *venture-identity embeddedness* that may inhibit their ventures from successfully traversing these legitimacy thresholds during times of transition. Conversely, ventures attempting to cross multiple legitimacy thresholds may benefit from *legitimacy buffering* when high stocks of legitimacy from a previous life cycle stage carry over and provide an entrepreneur with time to adapt and the ability to deviate from the established norms and institutional conventions of the new setting. Next we discuss the contributions, implications and opportunities that stem from this inquiry.

DISCUSSION, CONTRIBUTIONS, AND IMPLICATIONS

Discussion and Contributions

Based on our synthesis of multiple literatures, we have proposed a more nuanced and comprehensive framework of how new ventures gain and sustain legitimacy and thereby acquire resources. Our central assertion is that the criteria for assessing new venture legitimacy varies across different life cycle stages as ventures appeal to resource providers with distinctly different expectations. By relaxing two important assumptions embedded in prior research—that legitimacy is less of a concern once a new venture becomes established, and that resource providers are homogeneous in their assessments of legitimacy—we offer novel insights about how new ventures can attain and manage (or lose) legitimacy over time as they transition through different life cycle stages.

The framework proposed enhances our understanding of legitimacy, entrepreneurship, and organizational identity. We contribute to the legitimacy and entrepreneurship literatures by explicitly linking legitimacy criteria to systemic changes in the audience expectations of new ventures as they evolve and grow. Prior research at the intersection of entrepreneurship and institutions (e.g., Hiatt et al., 2009; Sine et al., 2007) has provided interesting insights into the link between institutional environments on organizational start-ups (See Tolbert, David, & Sine, 2011 for a review). Yet research on how a new venture evolves and grows—in particular as they transition to different stages of development with different institutional expectations—is sorely lacking. By connecting entrepreneurial identity claims with systemic changes in the audience expectations of new ventures as they evolve and grow, we address the calls by institutional theorists to explore how assessments of new ventures "differ across different audience contexts" (Navis & Glynn, 2011: 494).

Building on prior research and integrating insights from different theoretical perspectives, we highlighted that entrepreneurial ventures confront multiple legitimacy thresholds as they evolve and grow. From this we identified three key insights related to entrepreneurs' efforts to cross those thresholds at different organizational life cycle stages: institutional pluralism, venture-identity embeddedness and legitimacy buffering. These insights advance our understanding of identity claiming activity and legitimacy management in new ventures as they transition through different stages of their life cycles.

First, our core assertion that new ventures face multiple legitimacy thresholds extends the notion of a single threshold put forth by Zimmerman and Zeitz (2002). Our theoretical logic for multiple thresholds was relatively straightforward: The heterogeneity of resource providers making new venture legitimacy judgments at different stages of the organizational life cycle means that different institutional conventions are invoked in assessing the legitimacy of a venture at different stages of its life cycle. Because the criteria used to assess venture legitimacy change systematically with changes in audiences, new ventures face multiple legitimacy thresholds over time. This insight contributes to the literature on new venture legitimacy by providing a more complex and complete perspective of the legitimacy challenges confronting entrepreneurial ventures. It draws particular attention to issues of temporality in neo-institutional theory by considering how institutional pressures on an entity change with time.

Second, as a venture transitions from being dependent on resource providers with a certain set of expectations to others with an alternative expectation of what constitutes a legitimate entrepreneurial identity, they confront the challenge of operating under conditions of salient *institutional pluralism* where they must comply with institutional conventions of multiple social systems (Kraatz & Block, 2008: 247). By attempting to project an identity that satisfies the pluralistic demands of multiple audiences, the venture risks being perceived as illegitimate by these audiences. This important insight extends the concept of institutional pluralism into the entrepreneurship literature by highlighting how a growing venture inevitably faces the challenge of having to meet the expectations of different organizational audiences as it evolves. Additionally, by examining the concomitant evolution of organizational identity as a function of the organization's life cycle stage, our insights use Whetten's (2006) pioneering work as a point of departure to shift identity theory's core frame of reference and discourse from the "who" to the "when," "how," and "why."

Third, we argued that attaining high levels of legitimacy is not without drawbacks. Those ventures with the highest levels of legitimacy in one stage of their life cycle face the most significant challenges related to *venture-identity embeddedness* as they transition to the next stage due to cognitive and relational lock-in stemming from perceived success in their current environment (Baker & Nelson, 2005; Maurer & Ebers, 2006). Such lock-in constrains their ability to adapt to differing audience expectations because the people in that organization may identify more strongly with its historic identity and be less willing and eager to adapt their identity to meet changing expectations. Highlighting the barriers that entrepreneurs and ventures experience when required to make alternative identity claims contributes to the literature on organizational identity and new market development (Navis & Glynn, 2010; Wry et al., 2011) in that it not only suggests the need for identity adaptation but also enumerates the mechanisms that can make this difficult.

Fourth, we proposed the concept of *legitimacy buffering*: the notion that entrepreneurial ventures build up "stocks" of legitimacy in one institutional setting, and so when they transition to another, they receive greater leeway to comply with the relevant expectations of the new setting. Therefore, legitimacy garnered during an earlier stage does not necessarily become devalued as a venture transitions to a new institutional audience; rather, past successes benefit a venture as it moves forward, even if they relate to different institutional expectations (Merton, 1968). The notion of legitimacy buffering helps explain how new venture legitimation can be path-dependent in spite of different audiences using distinctive legitimacy criteria. It also illustrates how legitimacy garnered in one stage creates an occasion for sensemaking by enabling otherwise taken-for-granted expectations to be revisited and perhaps altered (Weick, 1995).

These theoretical assertions—the core assertion pertaining to multiple legitimacy thresholds and the other insights related to institutional pluralism, venture-identity embeddedness, and legitimacy buffering—individually and in combination, provide a novel, unique, and comprehensive perspective on legitimacy attainment and management in new ventures. Taken together, they suggest that legitimacy attainment early in a venture's life does not necessarily ensure its continuance over time. They highlight the challenges associated with legitimacy attainment and management that occur over a venture's life cycle. Further, these theoretical assertions recognize that many of the challenges associated with legitimacy attainment and management faced by ventures occur during different life cycle stages. They identify the mechanisms that entrepreneurs can use to manage legitimacy in order to ensure continued access to resources**.** They also alert entrepreneurs and managers to consider the expectations of heterogeneous organizational audiences and the associated challenges of changing their ventures' identities and practices to meet these changing expectations.

These arguments are broadly consistent with past research that has highlighted the relevance of recognizing organizational legitimacy challenges in new ventures through an industry evolution lens. Aldrich and Fiol (1994) described how the legitimacy strategies of new ventures change as an industry develops. We complement this perspective by examining organizational legitimacy challenges in new ventures through an *organizational life cycle lens*, thereby recognizing that it is not only industry evolution, but also organizational evolution that impacts legitimacy challenges for entrepreneurs and managers. In the same way that Aldrich and Fiol spurred further research into the link between industry evolution and organizational legitimacy (e.g. Navis & Glynn, 2010), we hope that the model proposed here will spur further research into the link between organizational life cycles and organizational legitimacy management.

Implications

The conceptual model we propose has important implications for researchers and entrepreneurs. It provides a broad roadmap for entrepreneurs to understand how and why their ventures may be assessed according to different criteria as they transition through different stages. In particular, our model highlights how, over time, legitimacy evaluation criteria evolve from primarily symbolic parameters focused on the founding team to objective accounting metrics focused on the organization. Further, our model provides a basis for understanding how a venture's approach to legitimacy acquisition and its entrepreneurial identity must adapt to match audience expectations corresponding to its current life cycle stage. As such, entrepreneurs should recognize that a venture's identity must evolve over time; they should be prepared to layer on additional identity elements while striving to retain valuable and important elements of the current identity. Through this process, an organization's identity may come to consist of multidimensional "constellations of features and labels appropriate for different contexts and interactions" (Gioia et al., 2000: 74). Balancing the paradoxical demands of various audiences and expectations can be challenging yet critical for growth and continued success. Our proposed framework suggests ways in which entrepreneurs may adapt the venture's entrepreneurial identity to anticipate and respond to legitimacy challenges so as to access much needed resources as the venture evolves.

The conceptual model we propose has important implications for researchers. It highlights the importance of studying *legitimacy management* in entrepreneurial ventures. Scholars studying legitimacy in entrepreneurial ventures have tended to focus on legitimacy attainment (e.g., Delmar & Shane, 2004; Martens et al., 2007; Navis & Glynn, 2011; Sine et al., 2007; Zimmerman & Zeitz, 2002; Zott & Huy, 2007) and the importance of legitimacy maintenance in established organizations (e.g., Elsbach, 1994; Jonsson et al., 2009; Suchman, 1995). In contrast, the ideas here show that entrepreneurial ventures not only have to attain legitimacy, but also actively manage it to grow and get established.

The conceptual model we propose offers promising avenues for future research. Researchers can undertake in-depth, qualitative analysis of ventures transitioning through stages of the organizational life cycle. Similar to the approach taken by Maurer and Ebers (Maurer & Ebers, 2006) to assess social-capital dynamics through a qualitative analysis of biotechnology firms, researchers can use the proposed theoretical framework to unpack and analyze legitimacy transitions in order to highlight the micro-foundations of new venture legitimation during transitions.

The shift from symbolic to tangible sources of legitimacy for new ventures, resulting from the uncertainty reduction that occurs as a venture develops, is an issue that could be elaborated on in future research. We make reference to this shift in the discussion of venture evaluation in the different stages of venture development, but we do not delve into the implications of this shift for entrepreneurs, managers, or resource providers. A deeper exploration of this shift is a promising way to further utilize a longitudinal perspective of entrepreneurial ventures to generate meaningful conceptual and practical insights.

One interesting point of theoretical and empirical focus is the tension between venture-identity embeddedness and legitimacy buffering. Both may be powerful forces behind highly legitimate, growing ventures, yet they function in opposing directions. Legitimacy buffering provides a means for highly legitimate ventures to escape some of the stringent expectations placed on a venture in transition, while venture-identity embeddedness suggests that such ventures may struggle to conform to the legitimacy criteria of new audience expectations because they fail to perceive the need for change. This raises the question of when one may overpower the other. Future research should build deeper understanding of when each force dominates and how they interact. In addition, we anticipate that there are a variety of opportunities for additional research that explore audience reaction to identity claim shifts to explicate how barriers differ for ventures in markets with strong collective identities—such as grass fed beef and French nouvelle cuisine (Rao et al., 2003; Weber, Heinze, & DeSoucey, 2008)—compared to those markets with indistinct collective identities.

Our work complements the stream of research exploring the relationship between the co-existence of multiple institutional demands on organizations and the concomitant sensemaking processes and shifts in an organization's identity (e.g., Battilana & Dorado, 2010; Lok, 2010; Meyer & Hammerschmid, 2006; Pache & Santos, 2010; Rao et al., 2003). While hybridization is often a viable option for organizations that are confronted with such a challenge (Battilana & Dorado, 2010; Lok, 2010), we suspect that in conditions such as the ones confronted by new ventures during transition phases in their life cycle, a speedy resolution of ambiguity by anticipating and meeting expectations of the audience in the next stage may yield superior outcomes. We thus reiterate the call by (Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011) for greater empirical attention to how organizations, particularly new ventures, respond to such complex institutional environments, and how this impacts ventures' ability to become established. In this vein, it may be worth examining the contingencies governing the choice of strategies for dealing with institutional pluralism, such as decoupling (Fiss & Zajac, 2006), hybridization (Battilana & Dorado, 2010), or elimination of old identities (Kraatz & Block, 2008).

The insights in this paper provide an interesting new theoretical perspective on research into Founder-CEO succession in entrepreneurial ventures. Prior literature on Founder-CEO replacement has tended to focus on managerial skills (Certo, Covin, Daily, & Dalton, 2001), power and influence (Boeker & Karichalil, 2002), and uncertainty resolution (Wasserman, 2003) as theoretical explanations for CEO replacement. Wasserman's inductive research in this domain highlighted two central inter-temporal events that may affect Founder-CEO succession: "The completion of product development and the raising of each round of financing from outside investors" (p.149). The theoretical explanation we propose would suggest that these inter-temporal events propel a venture into a new developmental phase, one that needs to satisfy the expectations of a new audience. In this process, a venture can encounter challenges related to venture-identity embeddedness that centers on the linkage between the venture's identity and that of its Founder-CEO. Replacing a Founder-CEO is one approach to overcoming such challenges. We believe that this legitimacy and identity-based explanation of Founder-CEO succession complements existing explanations of the phenomenon and thereby enhances this stream of research.

One purposeful limitation of this paper is that it focuses on technology ventures seeking to establish legitimacy in order to attract financial resources. We recognize that the domain of entrepreneurship has a broader scope than just technology ventures, and legitimacy serves a purpose broader than just attaining financial resources. If the conceptual ideas presented here are applied to different types of ventures (e.g., social ventures, family businesses, or corporate ventures), then different organizational audiences with different expectations (e.g., social expectations, relational expectations, or integration expectations) would likely drive judgments of legitimacy. Yet such ventures may still undergo similar transitions as those described here; therefore, the concepts of legitimacy thresholds, institutional pluralism, venture-identity embeddedness, and legitimacy buffering would likely be relevant. Applying the conceptual model to different types of ventures offers an interesting opportunity for extension, generalization, and refinement of the ideas outlined.

Conclusion

Based on the accepted premise and evidence that legitimacy judgments are central to resource acquisition for new ventures, we theorized a shift in legitimacy criteria used to evaluate new technology ventures over different stages of their organizational life cycle. We posited that a nuanced understanding of new venture legitimacy judgments provides the basis for understanding why some ventures acquire resources to survive and grow, while others are resource starved. The core assertion from this conceptual analysis is that entrepreneurial ventures confront multiple legitimacy thresholds as they evolve and grow. Hence, to acquire resources, entrepreneurs must adapt their venture's entrepreneurial identity to appeal to different audiences, with different expectations, at different stages of its life cycle. By presenting a framework for how legitimacy criteria and the associated entrepreneurial identity demands placed on a venture change over the life cycle of a venture, we hope to stimulate further inquiry into the dynamic interactions between entrepreneurial action, institutional environments, and new venture resource acquisition.

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TABLE 1
Socially constructed systems of technology venture audiences

	Conception Stage	Commercialization Stage	Growth Stage
Primary Audience Providing Financial Resources	***Grant administrators; researchers***	***Venture capitalists; angel investors***	***Institutional investors***
Audience Goals	Knowledge advancement; solve societal problems and challenges; support technological advancement	Medium to long-term financial returns; exit investments in future at high multiple; participate in building companies	Short term financial returns; increase portfolio value year-on-year basis
Audience Norms	Academic professional norms	Long term financial self-interest	Short term financial self-interest
Audience Values	Openness; collaboration; learning; knowledge as a public good	Firm value creation; competition; proprietary knowledge for competitive advantage	Portfolio value creation; risk management; risk diversification
Audience Authority and Control Mechanisms	Bureaucracy; legislation	Equity percentages; board representation; informal reporting	Shareholder activism; meeting listing requirements; regular formal financial reporting and addressing shareholder concerns publicly
Audience Focus of Attention	Research progress; knowledge advancement; individuals' academic reputation	Market position; meeting growth milestones; potential for a successful liquidity event; individuals' entrepreneurial reputation	Financial results; share price and growth potential; broad economic factors; managers reputation as seasoned executives
Summary of Audience Orientation Toward Technology Ventures	Technology ventures are mechanisms to advance knowledge that benefit the society as a whole	Technology ventures are mechanisms to generate private wealth in the medium-term and advance the reputation and career of financial intermediaries	Technology ventures are mechanisms to generate short-term financial returns and balance an investment portfolio
Legitimacy Evaluation Factors	• Technological plausibility of proposed concept • Academic/technical reputation of team • Recognition of associated institution (e.g. university ranking) • Creation of public goods • Goals focused on knowledge advancement and societal gain • Compliance with academic norms and standards (citation, disclosure, etc.)	• Demonstrated technological progress • Team's entrepreneurial experience/reputation and passion • Source of knowledge about new venture (referral source) • Perceived market potential (size, growth, and competitive dynamics) • Plausibility of proposed business model • Substantial venture accomplishment recognized by a credible third-party ("proofpoints") • Protection of private goods (patents, non-disclosure etc.) • Goals focused on exploitation of private goods for economic gain • Compliance with legal requirements for private entities	• Demonstrated exploitation of technological concept • Managerial reputation (prior roles and organizations) • Recognition (and status) of associated organizations (investment banks, auditor, strategic alliances) • Financial performance of the organization • Balancing multiple stakeholder interests and statisying their concerns • Goals and strategies focused on revenue and profit growth • Compliance with formal listing regulations (SEC) and other regulatory concerns

FIGURE 1
Comparison of conceptions of venture legitimacy over time

Figure 1a. Prior conception of venture legitimacy over time (Zimmerman & Zeitz, 2002: 427)

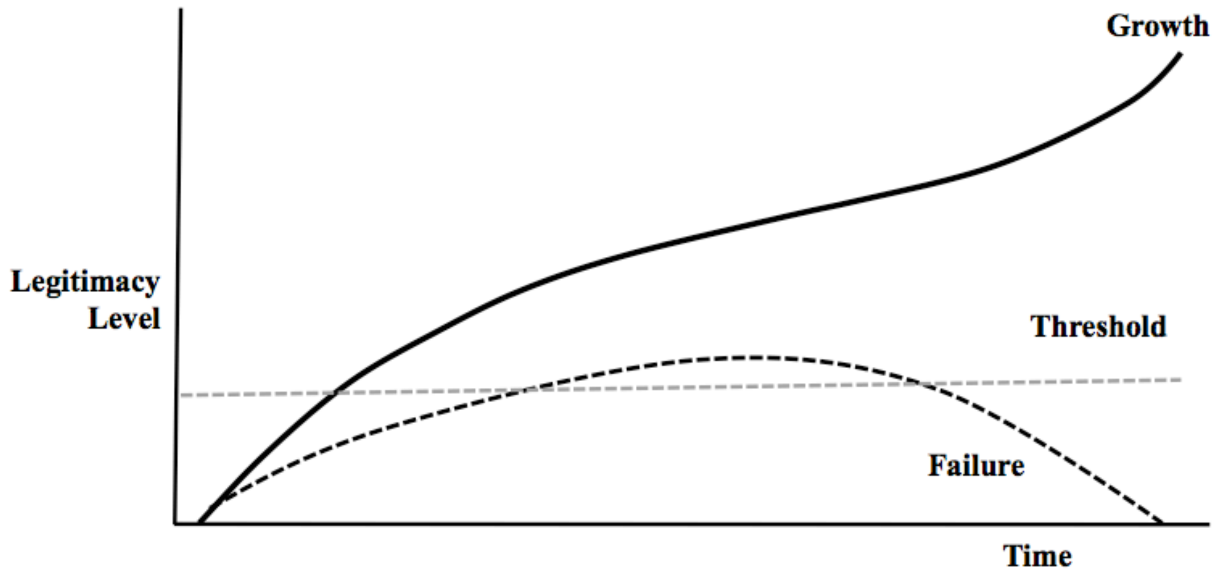

Figure 1b. Updated conception of venture legitimacy over time