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# Normative rationality in venture capital financing

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ABSTRACT

We examine whether venture capitalists (VCs) make investments based on normative rationality, which is derived from habitual and embedded norms and traditions indicative of a macroculture. Syndication and social and professional relations facilitate the development of shared decision-making frameworks. Using a four step methodology and a unique dataset of 139VC decisions and 82 independent VC assessments of those decisions, we find that the VC industry exhibits collective investment decision-making preferences, reflecting normative rationality. We offer implications for theory, practice, and future research.



## 1. Introduction

New technology firms contribute to job creation and economic growth and development (Kirchhoff, 1989; Kirchhoff and Phillips, 1988; Kirchhoff et al., 2007). According to Stouder and Kirchhoff (2004: 352), "One main critical task facing entrepreneurs is to acquire and manage the resources needed to start… [a venture], especially financial … resources," and venture capital (VC) is one source of funding. Venture capitalists (VCs) also provide human capital and social capital—key resources for firm survival (National Venture Capital Association (NVCA), 2011). In the U.S., venture capitalist (VC)-backed firms account for 12 million jobs and $3.1 trillion in revenue (NVCA, 2011), approximately 11% of private sector employment, and 21% of gross domestic product. VC decisions ultimately affect industry innovation and economic growth (Lerner, 2002; Sorenson and Stuart, 2001), especially in critical sectors such as technology (Chorev and Anderson, 2006; Pandey and Jang, 1996) and life sciences (Platzer, 2009). VC firms frequently work together in syndicates with two or more firms investing in the same or in other investment rounds (Manigart et al., 2006; Tian, 2012), often developing repeated patterns of activities.

Scholars have long argued that the pure neoclassical economic rationality perspective is insufficient to explain decision-making (e.g., Kirchhoff, 1994). A large body of theory and empirical research suggests the presence of institutional norms—that is that decisions are based on what is considered acceptable or legitimate in a specific environment, as well as on technology and economic criteria (DiMaggio and Powell, 1983). In a decision-making context, normative rationality describes those decisions, which are embedded in norms and traditions (Oliver, 1997), and thus may result in almost homogeneous decisions. There is anecdotal evidence that suggests that the VC industry exhibits normative rationality, which dictates how funding decisions are and will be made; however, there are no known investigations of this contention. There is evidence in the finance literature on herding behavior in stock market investments (Kaplan and Schoar, 2005), which suggests some plausibility for normative rationality in highly uncertain decision-making contexts such as VC investments.

This research attempts to answers the question: do individual VCs make homogeneous decisions regarding the funding of business plans? A better understanding of how VCs make decisions could guide entrepreneurs when soliciting financial support for their start-ups. If all VCs think and act alike with respect to investment decisions, then an entrepreneur's time would not be well spent soliciting multiple VCs. Rather, an entrepreneur's time and resources would be better spent incorporating VC feedback into a plan and then taking the revised plan to another VC.

This article proceeds as follows. First, we outline the theoretical background for the research question and discuss how VC decisions reflect normative rationality. Next, we describe our unique primary dataset of 139 business plans that were presented to 82 VCs based on the East and West coasts of the U.S., and the four-step methodology. Following a presentation of the results, we conclude by discussing the limitations and the implications for theory, practice, and future research.

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## 2. Theoretical background: VC investment as a context for normative rationality

A normative rationality perspective is consistent with the strategy literature on interorganizational macrocultures, which are described as "relatively idiosyncratic, organization-related beliefs that are shared among top managers across organizations" (Abrahamson and Fombrun, 1994: 730). A rich literature describes how managers can develop shared mental models and how decision-making can become routinized in groups and in the industry (Porac and Thomas, 1990). Embedded ties facilitate trust, fine-grained information transfer, and joint problem solving (Uzzi, 1997). Repeated interactions regarding specific decisions lead to collectively developed behavioral patterns. Strong and long-lasting ties foster the development of social rules and reciprocal trust, which, in turn, encourage communication among parties and the creation of routines, collective languages, and a collective culture (Coleman, 1990). Groups routinize their decision-making patterns over time (McClelland, 1984), especially through repeated interactions (Gersick and Hackman, 1990) and this aids sensemaking through continuity and coordination (Weick, 1979).

There is anecdotal evidence to suggest that VCs may exhibit normatively rational decision-making, which consists of decisions that are embedded in historical and normative processes. The VC industry places a high value on historical interactions. VCs prefer to interact with individuals with whom they have a history and they know well, e.g., certain entrepreneurs, lawyers, or other VCs (Walske and Zacharakis, 2009). VCs are also more likely to support venture teams with whom they have experienced success in the past (Sorenson and Stuart, 2001).

Furthermore, an embedded macroculture develops and maintains VC industry norms. The majority of VC investments often take place in syndicates, which are dense networks that are structurally embedded and enable information to diffuse across boundaries (Sorenson and Stuart, 2001). For example, of the estimated 31,000 firms that received U.S. venture capital from 1980 to 2005, 70% garnered funds from two or more VCs (Tian, 2012). Among VC-backed firms holding an initial public offering (IPO), two or more firms backed 88% of those that received funding (Tian, 2012).

Through syndicate investing, VCs develop a web of relationships based on past and current investments (Lerner, 1994), which can lead to normative decision-making. Syndicates have high degrees of reciprocity (Lerner, 1994) and repeat investments (Bygrave, 1988), thus exposing participating VC firms to more deals. In a syndicate, individual VC firms may alternate between lead and non-lead roles over time (Bygrave, 1988), with the lead firm usually contributing the most resources and having larger equity stake (Wright and Lockett, 2003). Through syndication, VCs share knowledge, contacts, and other resources (Bygrave, 1988). Thus syndication allows individual VCs to combine their sector-specific and location-specific investment expertise to help diffuse information across sector boundaries and diversify their portfolios (Sorenson and Stuart, 2001). VC syndicate sanctions include the damaging effects of reputation, withheld deal flow in the future, and the threat of non-investment in subsequent rounds (Wright and Lockett, 2003).

Embedded human capital structures facilitate the development of a normative rationality (Oliver, 1997). The embeddedness in the VC industry is also illustrated in the norms related to human capital. The majority of VC firm employees receive MBAs from a handful of premier institutions, namely Harvard, Stanford, MIT, and Wharton (Smart et al., 2000). Furthermore, instruction at these institutions comes from a limited set of experts, e.g., Georges Doriot at MIT (Bancroft, 2009; Roberts and Eesley, 2009). Key VC employees can be hired away from other VC firms (Bancroft, 2009), facilitating direct knowledge spillover. VC firms hire entrepreneurs with experience working with VCs (Wetfeet, 2010). Also, key VC employees leave established firms to start new ones (Bancroft, 2009; Walske and Zacharakis, 2009). This human capital transfer is institutionalized outside the U.S. For example, U.S. VCs trained VC managers in Asia (Bruton et al., 2005) and established the early VC firms in Europe (Manigart, 1994). Worldwide, comparative studies indicate that the VC industry is increasingly homogeneous in terms of experiential background (Cornelius, 2005).

Social and professional relations, such as friendship ties, business clubs, industry associations, and professional and occupational associations facilitate normative decision-making, which occurs by developing shared norms, embedding economic behavior, and facilitating trust (Oliver, 1997). VCs share extensive professional and social ties (e.g., Bancroft, 2009; Shane and Cable, 2002). VCs have high levels of relational embeddedness, which influence their partner selections in inter-firm collaborations (Meuleman et al., 2010). There are numerous professional VC associations at local (e.g., Silicon Valley) and national (e.g., National Venture Capital Association for the U.S., Canadian Venture Capital Association for Canada, European Venture Capital Association for Europe, and Australian Venture Capital Australia for Australia) levels, which enjoy widespread industry support (Bruton et al., 2005: 739) and participation, thus reinforcing norms.

Industry homogeneity may also structure homogeneous, industry-level decisions. As examples, individuals working in the VC industry have high degrees of homogeneity in terms of gender (male) (Brush et al., 2004), education, and work experience (Wetfeet, 2010); and these homogenous groups tend to have higher levels of communication and lower levels of conflict (Ancona and Caldwell, 1992), thus reinforcing norms. Investment and hiring practices also reveal preferences for homogeneity: VCs are also less likely to pursue markets that are geographically distant to them (Dimov and De Holan, 2010). Also, VCs prefer entrepreneurial teams with training and professional experience similar to their own human capital (Franke et al., 2006).

The above discussion highlights the high levels of interconnectivity in the VC industry (Bygrave, 1988) and suggests the presence of a macroculture and the strong likelihood of normative rationality in decision-making. The high levels of ambiguity and uncertainty in VC investment decisions are also likely to result in evolving cognitive frameworks that can become mutually constitutive (Wright and Lockett, 2003; Weick, 1979). Research indicates that VCs have a limited understanding of their own decisions (Zacharakis and Meyer, 1998); thus prompting the possibility that VCs are imitating other firms rather than making independent, rational decisions. Thus, we expect:

*Hypothesis: Individual venture capitalists will exhibit homogenous investment decisions when presented with different investment opportunities.*

## 3. Data and analytical approach

We gathered data using individual VC investment decisions because syndicate-level designs would have been confounded by syndicate-related factors. This design meets the requirements for a test of normative rationality that determines whether individuals independently make identical decisions after controlling for potential economic rationality (D'Andrade, 1995; Ross, 2004).

We collected 70 funded business plans and 69 unfunded business plans as initially submitted to VCs for possible funding (this database is also used in Dos Santos et al., 2011). We asked VCs for unfunded business plans, which had been given due