Social Networks 41 (2015) 1–17

Contents lists available at ScienceDirect

Social Networks

journal homepage: www.elsevier.com/locate/socnet

Network effects on organizational decision-making: Blended social mechanisms and IPO withdrawal☆

Jason Owen-Smith[a,*], Natalie C. Cotton-Nessler[b], Helena Buhr[c]

[a] University of Michigan, Department of Sociology, #3001 500 S. State St., Ann Arbor, MI 48109-1382, United States
[b] Bentley University, Department of Management, 175 Forest Street, Waltham, MA 02452, United States
[c] The Northwestern Institute on Complex Systems (NICO), 600 Foster Street, Evanston, IL 60208-4057, United States

ARTICLE INFO

Keywords:
Network mechanism
Multiple networks
Inter-organizational networks
High technology industries
Initial public offering

ABSTRACT

This paper develops a new approach to the study of network effects in organizations and markets by proposing that structural influences on social and economic action result from contingent blends of well-understood social mechanisms. We emphasize the interplay of three different network processes: resource and information transfer, status signaling and certification, and social influence. Different mixes of these mechanisms characterize disparate networks because the obligations imposed by ties and the capacities of partners result in situations where mechanisms amplify or diminish one another. We test hypotheses about mechanism interactions using four years (1997–2000) of data on high-technology IPOs that situate organizational decisions about whether to withdraw an offering in two distinct networks. We find that network mechanisms exert multiple moderating effects on one another and that those effects vary systematically across venture capital syndicate and director interlock networks. These findings help to explain why different networks exert disparate effects, why the effects of some structures change as their larger contexts shift, and why even very successful organizations can sometimes find themselves hamstrung by their connections.

1. Introduction

Networks shape social and economic action through multiple, co-occurring mechanisms (Podolny and Baron, 1997; Fernandez et al., 2000; Podolny, 2001). We develop the idea that social and organizational connections blend together at least these three social mechanisms: Among other things, relationships channel flows of tangible and intangible resources (Granovetter, 1973; Burt, 1992), signal status and membership (Podolny, 1993; Zuckerman, 1999), and convey influence (Friedkin and Johnsen, 1990). We seek to explain how these mechanisms intensify or diminish one another's effects to enforce tradeoffs on or offer unanticipated gains to the participants in particular networks.

We begin with the observation that relationships in a network are not static indicators of a single social process. While it is tempting to assume, for instance, that the fact of a connection entails the transfer of valuable information between partners, it need not. Network ties are clean representations of messy interactions. They thus stand in for complicated social processes that can shape action and outcomes through several means. We contend that network scholars must begin to elaborate the ways in which structures reflect the workings of multiple social mechanisms that might act in concert or at cross purposes, depending on the actors, activities, and context that characterize a particular empirical network. At least three processes – information transfer,[1] status signaling, and social influence – are muddled up in most relationships. Moreover, we expect the

☆ This paper was a fully collaborative effort, all three authors made essential contributions to the work. We acknowledge research support from the National Science Foundation (grant # 0545634) and the Alfred P. Sloan Foundation. Our efforts have benefited from able research assistance from Jessica Galoforo, Tammy Yang, Mike Zhu, Erica Jankelovitz, David Weisman, Jeff Lundy, Grace Kang, and Josh Cykiert. We appreciate useful commentary from members of the US Knowledge Economy research team at the University of Michigan and from audience-members at the University of Arizona's McGuire Entrepreneurship Center, the Economic Sociology Workshop and the 2008 Entrepreneurship Conference at the University of Michigan, as well as the 2008 Sunbelt and American Sociological Association Meetings. We also thank Jerry Davis for wise counsel. Any remaining mistakes or infelicities are ours alone.

* Corresponding author. Tel.: +1 734 976 0700.
E-mail addresses: jdos@umich.edu (J. Owen-Smith), ncottonnessler@bentley.edu (N.C. Cotton-Nessler), hbuhr@umich.edu (H. Buhr).

http://dx.doi.org/10.1016/j.socnet.2014.11.004
0378-8733/

[1] For the sake of rhetorical simplicity we use the phrase 'information transfer' to encompass all movements of valuable tangible and intangible resources through network connections.

strength and salience of each mechanism to vary across different types of activities and partners.

Put succinctly, this means that network theorizing must become more contingent as the mechanisms at work and thus observable effects of social structure will vary from context to context. We seek to contribute to the development of a more contextual theory of network multiplicity that expands our ability to explain the varied effects exerted by differently configured networks by emphasizing the blends of mechanisms that characterize their workings. To that end we make two related arguments.

First, we contend that an individual or organization's position in a given network activates several processes that condition each other's effects (cf. Smith et al., 2012). Networks influence action and outcomes through blends of mechanisms. Second, we argue that the content of ties and characteristics of their participants matter for understanding how mechanisms blend. All networks contain some mix of information transfer, status signaling, and social influence processes. However, characteristics of the parties involved and the types of relationships linking them affect how these simultaneous processes operate – in tandem or at cross-purposes – to produce observable outcomes.

We test hypotheses about when and how different social mechanisms amplify or diminish each others' effects using data on the venture capital syndicate and director interlock networks of the population of high-technology companies that announced their intention to go public between 1997 and 2000. We seek to explain why corporations that have signaled their intention to pursue a liquidity event by filing a prospectus indicating they will undertake an initial public offering (IPO) change course by withdrawing their IPO to remain private and independent.

Research in finance and entrepreneurship has demonstrated that the decision to withdraw an IPO has to do with a corporation's (or its advisors') perceptions of the firm's chances for market success. The financial characteristics of offerings and companies underpin common firm level explanations for withdrawal. Greater revenues, less debt, and larger offerings all decrease the likelihood of withdrawal (Busaba et al., 2001; Zhao, 2005; Dunbar and Foerster, 2008). In addition, a corporation's choice of partners is important: underwriter prestige and the choice of whether or not to have venture capital backing affect the likelihood of withdrawal (Boeh and Southam, 2011). We extend this insight into the role of partners and propose that key networks influence the likelihood of withdrawal. The decision to forgo a desired outcome stems from a combination of resource and information transfer, status signaling, and social influence mechanisms that vary across the interlock and syndicate networks.

Our argument for a more contingent, contextualized approach to network theorizing creates new challenges for empirical network studies, including this one. Our conclusion and implications section more fully discusses the general characteristics of a behavioral network theory that takes the kinds of contingencies we study seriously. For now it is important to highlight a key tension: the desire to create generalizable theory about network processes is often at odds with the goal of contextualizing our understanding about those same processes. On the one hand, we seek to articulate and test hypotheses that are general enough to provide purchase on the effects networks exert in many settings. On the other, we are acutely conscious that our core argument depends on the notion that there are likely to be few universal relationships between network measures and outcomes. In an effort to make claims that are as generalizable as possible while still doing justice to our arguments about the contextual dependence of networks, we take the unconventional step of introducing our empirical setting before presenting our theoretical arguments in order to allow the empirical details of our focal setting and actors to inform the analytic work that follows.

2. Setting

We develop and test our hypotheses in an examination of firms' decisions about whether or not to realize an initial public offering (IPO) in high technology industries in the period from 1997 to 2000. The IPO is a bellwether event in the life of a young firm (Gompers and Lerner, 1999) and is a routinely used outcome measure in finance (Lerner, 1994; Ritter and Welch, 2002) and strategy (Pollock and Rindova, 2003; Higgins and Gulati, 2006). Yet firms that indicate their desire to go public need not complete the process. At any time after announcing intentions to IPO, a firm may "withdraw," canceling its ability to offer securities on the public market.

The decision to pursue an IPO carries the considerable costs of developing and filing a prospectus, establishing underwriters, and working to generate demand for an issue, a process called "book building" (Busaba, 2006). When an organization files an S-1 form with the Securities and Exchange Commission (SEC) it is publicly announcing a strong preference to realize its IPO. In addition to the sunk costs of beginning the IPO process, companies and managers have disincentives to forgo an IPO.

Withdrawing an IPO diminishes the reputation of both the organization and the individuals that run it (Acimovic and Lyn, 2000). Companies that withdraw IPOs are much less likely to make a second, successful attempt to go public (Dunbar and Foerster, 2008), and if they do, they suffer a valuation penalty as a result of being perceived as a higher risk (Lian and Wang, 2009). Thus firms that stay independent in the wake of a withdrawn offering have to rely on other – frequently more expensive – sources of financing. Withdrawing an IPO without an alternative liquidity event also defers insiders' and financiers' ability to profit from pre-IPO equity and options.[2]

Nevertheless, IPO withdrawals occur fairly often. Over a 20 year period, Lian and Wang (2012) estimate that slightly more than 20% of all attempts to go public result in a withdrawn registration. Companies in the IPO pipeline can withdraw for numerous reasons including negative (bankruptcy) and more positive (appealing acquisition opportunities) outcomes. However, some percentage of companies step away from equity markets only to remain alive and independent or to try the IPO process again at a later date.

We take the decision to withdraw an IPO by a company that does not subsequently go bankrupt or cease to be independent to represent an instance where an organization changes course to pursue a costly alternative other than the one for which it has already signaled a strong preference. In addition to firm level factors (small offerings, few or no revenues) that have been shown to influence withdrawal rates (Busaba et al., 2001; Zhao, 2005; Dunbar and Foerster, 2008), we propose that firms' networks will influence the likelihood of withdrawal. This is consonant with Boeh and Southam's (2011) finding that features of a firm's coalition of backers and advisors affect the likelihood of withdrawal. For example, the more prestigious the underwriter and the more active the venture capital investors, the lower the likelihood a firm will withdraw (Boeh and Southam, 2011).

There are three reasons that decisions about whether to withdraw an IPO and forgo other sources of liquidity offer a particularly rigorous test of our approach to network effects on organizational

[2] One reason firms commonly withdraw an IPO is to enable them to pursue an attractive financial alternative such as a merger or acquisition. (Despite the fact that while there is a valuation benefit to companies which are acquired during the IPO process, this benefit exists only if the company is acquired before formally withdrawing the IPO (Lian and Wang, 2009.) By focusing our discussion and analyses on firms that withdraw and remain independent, we avoid the possibility that similar financial incentives may drive both the decision to file for an IPO and the decision to withdraw.