

# NETWORK STRATEGY

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INVESTOR IN PEOPLE

# WHO'S THE NEW KID? THE PROCESS OF DEVELOPING CENTRALITY IN VENTURE CAPITALIST DEAL NETWORKS

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## ABSTRACT

*In this chapter we examine the process by which new firms become central actors within their industry networks. We focus, in particular, on how relatively new venture capital (VC) firms become more central within investment syndication networks. We present a model that captures the relationships among (1) the social capital and status of the new VC firm's founders, (2) the VC firm's resource endowments, (3) the VC firm's ability to forge relationships with other prestigious and central venture capital firms, (4) the visibility-enhancing performance of portfolio firms, and (5) the urgency and effort exhibited by the new VC as it pursues these opportunities. These factors combine to shape a new VC's journey from the periphery to the center of its industry network. To illustrate these processes, we develop in-depth case studies of Benchmark Capital and August Capital, two VC firms founded in 1995. We then elaborate upon the enacted nature of resource and opportunity constraints and*

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*conclude with a discussion of how new firms create their own self-fulfilling prophecies.*

Conventional wisdom holds that new entrants to existing industries often struggle to gain access to important resources while established players typically enjoy much easier access. Merton (1968a) labeled this phenomenon the “Matthew Effect,” and described how prominent actors are able to acquire resources, attention, and rewards more readily than less well-known actors – in other words, how the rich get richer while the poor get poorer. Social networks scholars have devoted considerable attention to this phenomenon, arguing that firms occupying more central positions in networks have informational advantages (Freeman, 1979; Gulati, 1998) and more accurate views of existing networks (Krackhardt, 1990) that provide them with more detailed knowledge of and access to larger pools of potential network partners (Gulati & Gargiulo, 1999). These informational advantages grant central firms better access to critical resources while simultaneously depriving less central firms of similar opportunities.

However, both the Matthew Effect and network perspectives on the role of centrality in partner selection and network formation tend to assume fairly static and stable network structures. As a consequence, their focus is on how central actors entrench their positions by gaining early access to new and valuable resources while relegating less central organizations to either surviving on the periphery of industry networks or exiting these networks completely (Kim, Oh, & Swaminathan, 2006). These perspectives argue that established players behave in ways that maintain stability – thereby ensuring central actors’ continued positional advantages – while the resulting network inertia (Kim et al., 2006) leads to underperformance or failure for new firms seeking to enter and establish their own positions within industry networks. Yet casual observation of all but the most stagnant industries suggests that new firms routinely navigate their way from the periphery to the center of industry networks in spite of their presumed disadvantages.

The original biblical context that inspired Merton’s “Mathew Effect” (King James Bible, Matthew, XXV: 14–34) can be instructive in this regard, although not necessarily for the reasons Merton articulated. In Matthew’s parable, a man leaving the country gave his goods to his servants to care for while he was away. He gave one servant five talents (a measure of currency equal to several years’ wages), another two talents and a third one

talent. The two servants who received multiple talents invested them, and were subsequently able to return double the talents to their master upon his return. In contrast, the servant who received only one talent was fearful and buried the talent in the ground rather than investing it. Upon returning, their master rewarded the first two servants for their efforts but castigated the servant who hid rather than invested his money, taking the one talent away from this servant and giving it to the servant who had achieved the highest return on his investment. The lesson Merton took from this story and reified in the public consciousness is that the rich get richer while the poor get poorer. However, the second lesson from this parable, which generally goes unacknowledged, is that *sometimes* the poor become poorer when they fearfully bury and hide what little they own rather than using their existing endowments, however meager, to trade to their advantage. This suggests the poor may be more likely to escape poverty if they invest and leverage, rather than hoard, whatever endowments they may possess. It is this second lesson on the effects of individual agency that we will use to understand how new firms can become central players in industry networks.

In recent years scholars have begun to pay more attention to the role of individual agency in network building activities (e.g., Emirbayer & Goodwin, 1994; Lin, 1999; Madhavan, Caner, Prescott, & Koka, 2008; Pollock, Porac, & Wade, 2004); however, we are unaware of any network research that has explored or developed theory to explain how new organizations can leverage available resources to overcome network inertia and gain more central or prominent network positions. Accordingly, this issue is the focus of our chapter. We explore this question by examining differences in how two new venture capital firms founded in the mid-1990s navigated their way to central positions within industry deal networks. In doing so, our chapter joins the work of others in this volume in enhancing our understanding of the processes through which interorganizational networks are developed and navigated (Dagnino, Levanti, & Li Destri, 2008; Madhavan et al., 2008; Rowley & Baum, 2008; van Liere, Koppius, & Vervest, 2008). The venture capital industry is an ideal context in which to study the process of developing network centrality primarily because of the importance of network structures to firm performance. Network structures strongly influence which firms become members of the prestigious investment syndicates that form around the most promising deals. The ability to access and invest in the most promising new ventures is a key to venture fund performance and also influences the ability to raise future funds.

This chapter is organized as follows. We initially provide a short background on the venture capital industry, highlighting its usefulness as a context in which to investigate the phenomenon under study. We then introduce our process model of centrality achievement and summarize the history and evolution of two venture capital firms – Benchmark Capital and August Capital – to illustrate the elements and relationships in our model. We conclude with a brief discussion of the model's implications and potential future research directions.

### THE VENTURE CAPITAL INDUSTRY: A VERY BRIEF HISTORY<sup>1</sup>

Although some form of venture capital financing has existed for millennia (Gompers & Lerner, 2006), the modern venture capital industry is a relatively new organizational form and field. Today, thousands of professionals manage hundreds of funds that are geographically concentrated on the east and west coasts of the United States (Gompers & Lerner, 2006). In comparison with the assets of even a single large bank or mutual fund company, the approximately \$150 billion in capital managed by the entire VC industry is relatively small. Nonetheless, because of its focused investments in highly risky but also highly lucrative young ventures, the venture capital industry is considered an important contributor to the overall health and growth of the U.S. economy.

The contemporary venture capital industry is in many ways a modern extension of the role played by wealthy families for hundreds of years. Families with vast accumulations of personal wealth have long maintained the practice of investing part of their fortunes in risky ventures while leveraging their extensive networks and strong ties among similarly positioned elites to both identify investment opportunities and shape investment outcomes to their families' advantage (Padgett & Ansell, 1993). Modern venture capital firms began to appear in the United States by the end of World War II, but these VC firms still relied primarily on wealthy individuals and families for much of their capital (Gompers & Lerner, 2006). At the same time, many large financial institutions had moved beyond family control and were managing investment portfolios that overshadowed even dynastic family wealth (although legal restrictions and tradition severely limited institutional investments in risky VC funds).

The VC industry received a significant boost in 1979 when an amendment to the U.S. Employee Retirement Income Security Act (ERISA) modified the “prudent man” rule governing pension fund investments. Before that time, pension funds were prohibited from investing significant sums of capital in high-risk assets such as venture capital funds. Responding in part to changes in academics' understanding of the role of proper portfolio diversification (Markowitz, Elton, & Gruber, 1979), the 1979 amendment relaxed this prohibition. Increased amounts of capital began to flow into venture funds from institutional investors eager for higher returns. Indeed, while new investments in venture funds in 1978 totaled only \$495 million (in 2002 dollars), by 1984, this amount had increased to \$5.6 billion, and at its peak in 2000 a total of \$108 billion was invested in new VC funds (Gompers & Lerner, 2006).

Not surprisingly, industry growth has historically been unsteady and subject to booms and shakeouts triggered by overall economic and equity market downturns (Kindleberger & Aliber, 2005). Fresh capital inflows in the early 1980s spurred the founding of new VC firms and investments in riskier industries such as personal computing, software, and biotechnology. A strong IPO market further increased inflows and resulted in even riskier investments by VCs. The market crash of 1987 and subsequent recession reduced capital inflows, however, and ultimately drove many inexperienced VC firms from the industry. Beginning in 1992, the IPO market began once again to gain steam, stimulating a fresh flow of capital into the industry. New venture capital firms proliferated: in 1995 alone 112 new venture capital firms were founded.<sup>2</sup>

By the mid-1990s, the rules of the VC game were fairly well established and familiar to participants. The limited partnership structure, which allows venture capitalists to raise multiple investment funds with defined life spans (typically 10 years), while also protecting investors from management responsibilities and legal liabilities, remains the dominant organizational form (Gompers & Lerner, 2006). The industry is characterized by a large body of taken-for-granted legal, accounting and managerial routines that quickly became legitimated as the industry developed (Suchman, 1995) and which helped to make the process of starting a new VC firm relatively straightforward. Nevertheless, at least two general characteristics of the early, pre-ERISA form of the VC industry remained consistent throughout this period and helped maintain advantages for established VC firms. First, reminiscent of the times when venture capital was provided and managed by wealthy families and their trusted financial advisors, the VC industry continued to exhibit a strong sense of status hierarchy among member firms

(Gompers, 1995). Second, the formation of investment syndicates, or deal networks (Pollock et al., 2004), remained common, allowing multiple VC firms to share the risks and rewards of funding entrepreneurial start-ups. Complementing the well-developed legal structure of the industry, embedded ties among elite participants remained important to the functioning of the industry while simultaneously creating status- and network-based boundaries that limited access to the industry's core deal networks.

In addition to these established norms, new VC firms in the mid-1990s faced another challenge. Growth and an increasing focus on capital-intensive technology industries rapidly increased the size of the "entry level" fund a VC firm needed to raise in order to become a serious industry participant and pursue what the industry now perceived as the most promising deals. VC money moved away from the highest risk, "seed stage" deals and toward meeting the larger capital needs of later-stage firms. Moreover, the public and private pension funds that had so eagerly invested in the 1980s became more selective and reluctant to commit capital to new and untried VC firms. Despite the fact that the number of existing VCs increased almost fourfold between 1980 and 1990 (from 87 in 1980 to 325 in 1990), there were approximately one third *fewer* first-time VC funds raised in 1990 than in 1980 (23 first-time funds in 1980 vs. 14 first-time funds in 1990).

This situation afforded a number of benefits to established VC firms. These key players were able to use their status and position to attract institutional investors while also leveraging their centrality to increase the compensation they earned via management fees and to claim a larger proportion of the funds' profits for themselves.<sup>3</sup> New entrants, on the other hand, were often expected to accept less attractive compensation terms in order to secure sufficient capital (Stross, 2000).

Central, high status VC firms also enjoyed advantages through superior access to the most lucrative investments. Finding blockbuster deals is not easy; venture capitalists may examine hundreds of business plans and management teams for each investment they make. However, centrally positioned VC firms gain privileged access to the most promising deals because of their presumed experience in developing new firms and their networks of relationships with key resource providers (Sahlman, 1990), potential alliance partners (Pollock & Gulati, 2007), and talented and experienced executives (Jain & Kini, 2000). As the venture capital industry has developed, many ventures seeking financing have come to prefer partnering with central and high-status VC firms, often to the point of

accepting lower valuations in exchange for the perceived added value of these investors (Hsu, 2004; Sapienza, Manigart, & Vermeir, 1996).

Taken together, these factors suggest that individuals attempting to establish a new VC firm in the period between the early 1990s recession and the late 1990s boom faced a number of challenges in finding institutional investors and gaining access to investment syndicates for the best deals. Both of the firms we will examine were founded and raised their first funds in 1995. The individual founders of both firms were experienced venture capitalists, but the question still remained: Could they do it on their own? In the following section, we present our model of centrality development and then delve into the histories of each firm to explore how the components of the model shaped the speed and success with which each firm enhanced its centrality in VC deal networks.

## THE PROCESS OF DEVELOPING NETWORK CENTRALITY

Early network studies in the management literature, such as "old" institutional theory (Selznick, 1948), contingency theory (Lawrence & Lorsch, 1967; Thompson, 1967) and resource dependence theory (Pfeffer & Salancik, 1978), all argued that firms create ties to obtain desired resources and manage uncertain environments. Network formation was therefore thought to be driven by firms' needs to connect with other organizations possessing the resources and capabilities required to help these firms cope with exogenous constraints. Organizations were assumed to be only mildly constrained by the characteristics of networks themselves in seeking and building their own ties. This perspective promoted an understanding of the factors that influenced the likelihood organizations will attempt to create new ties, but did little to explain how networks or prior ties determined the possibilities open to new organizations (Gulati & Gargiulo, 1999).

More recently, scholars have turned their focus to factors endogenous to networks that influence and constrain how organizations are able to embed themselves within existing network structures (Gulati & Gargiulo, 1999; Nohria, 1992). This literature often focuses on an actor's centrality within the network as an important endogenous factor, typically defining centrality as "degree centrality" (Wasserman & Faust, 1999), or the number of direct ties an actor has with other members of the network. From this perspective, the network itself is the key social constraint, providing the context that

shapes how organizations' actions recreate or alter the characteristics of the network within which they are embedded (Gulati & Gargiulo, 1999; Koka, Madhavan, & Prescott, 2006). Managers of the firms in a network are limited in the actions available to them as a result of the network structure they have helped to create (Nohria, 1992). Research from this perspective suggests that a firm is likely to form relationships with other organizations in the network with which it has had prior dealings, or with its partners' partners (Gulati, 1995). Further, this literature argues that central players are more likely to seek relationships with similar others – or with more central players – rather than with peripheral organizations (Chung, Singh, & Lee, 2000; Gulati & Gargiulo, 1999).

But what happens to a firm that does not occupy such a privileged position? Are these organizations doomed to a life on the periphery of industry networks? Whereas earlier perspectives focused on the general agency of organizational actors in finding ways to obtain resources and capabilities by building network ties, more recent work emphasizes that central firms *maintain* their privileged positions through securing additional network resources via the formation of valuable new relationships while dissolving old relationships that have become less valuable (Gulati, 1998; Gulati & Gargiulo, 1999; Inkpen & Beamish, 1997; Mizruchi & Galaskiewicz, 1994). Observation of real network dynamics suggests that new organizations are neither free to write their own tickets in becoming central within a network nor are they forever banished to the sidelines. New organizations can and do become central players within existing networks. The question, then, is how does this occur?

To address this question, we differentiate between two types of centrality: structural centrality and cognitive centrality. Structural centrality is based on the traditional notion of degree centrality in network analysis. Simply put, a structurally central actor is one who “is the most active in the sense that they have the most ties to other actors in the network” (Wasserman & Faust, 1999, p. 178). Cognitive centrality, on the other hand, is a social psychological concept originally used to describe how actors in work groups (whose knowledge and expertise is shared with larger numbers of group members) obtain greater influence within the network (Kameda, Ohtsubo, & Takezawa, 1997). More recent work has extended the concept to describe globally shared cognitive network representations (Batchelder, 2002) and has explored the various cues used by network participants to identify other members who are more expert within a network of actors (Bunderson, 2003).

In reviewing the literature on cognitive centrality, Bunderson (2003, p. 559) notes that “groups seem to perform better and make better decisions

when members share an accurate understanding of one another's expertise, and ... because expertise cannot be directly observed, group members are frequently either unaware of each others' expertise or inaccurate in their assessments of that expertise.” He goes on to say that “...it seems clear that subjects in these studies attended carefully to any potentially available and potentially relevant expertise signals” and notes that these signals can come from a variety of factors, including expert role assignment, past experience, and assertive behaviors. Bunderson argues that those actors in the group for whom others hold high performance expectations will become more cognitively central within the work group, that these expectations are based upon both specific and diffuse status characteristics (Humphreys & Berger, 1981), and that more specific characteristics will be relied upon for longer-tenured group members while more diffuse characteristics will be used when group tenure is short. This work is also consistent with research on cognitive availability (Hoffman & Ocasio, 2001; Kuran & Sunstein, 1999; Pollock & Gulati, 2007; Pollock, Rindova, & Maggitti, 2008; Tversky & Kahneman, 1973) that argues the ability to attract attention and become cognitively available, or salient and easy to recall, can enhance an actor's access to resources and perceptions of their capabilities and expectations regarding future performance.

In this study we argue cognitive centrality initially is likely to precede structural centrality for new actors in industry networks, but that cognitive and structural centrality will subsequently enhance each other in a recursive and mutually beneficial fashion. As an actor becomes more cognitively central and available its opportunities to participate in deals will increase, thereby enhancing its structural centrality. This increase in structural centrality will further enhance a firm's cognitive availability by providing an important status characteristic signal that others will use in evaluating its expertise and likely future performance (Bunderson, 2003). Because other network members rely on more diffuse sets of signals for shorter-tenured members, new firms are likely to have an easier time molding their own cognitive centrality as a lever to gain structural centrality than they would have trying to push their way into a structurally central position more directly. This sets the stage for the important role played by urgency and effort that we describe below.

Fig. 1 summarizes our process model of network centrality development. We suggest that this recursive process involves four key components that shape the extent to which a new firm becomes central in its industry network: (1) the personal social capital and prestige the founders bring to the firm; (2) the resource endowments the firm is able to acquire; (3) the

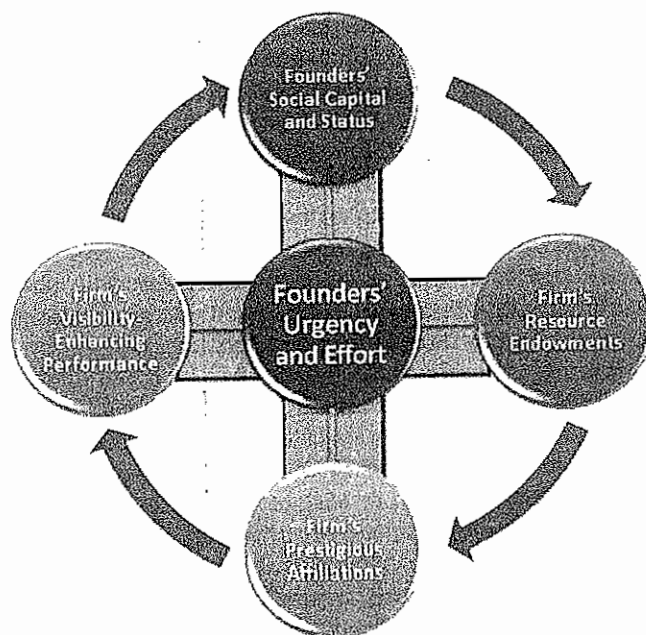


Fig. 1. Process Model of Centrality Development.

organization's ability to gain certification and affiliation benefits from relationships with other prestigious industry members; and (4) the extent to which the firm is able to achieve visibility-enhancing performance outcomes. Each component of the model affects the others. The social capital and status a founder brings to the firm can influence both the prestigious affiliations the firm develops as well as its ability to raise capital. Similarly, the more resources a firm has, the more opportunities it will be able to pursue and thus the greater its ability to develop relationships with prestigious industry members and achieve attention-grabbing performance. The better the firm's performance, the easier it becomes to raise capital for future investments and the greater its chances of investing alongside prestigious VC firms in deals. We also argue that the "hub" around which these four factors revolve – and that determines the rate at which centrality is achieved – is the time urgency the founders experience and the effort they put into acquiring and leveraging the four components of the "wheel." The greater the founders' cognitive, emotional, and behavioral

urgency, which we label their urgency and effort, the more torque generated by the wheel, and the more quickly centrality is likely to develop.

In the following sections, we introduce Benchmark Capital and August Capital and use their histories to explore each of these mechanisms and the relationships among them. As will become apparent, the two firms shared much in common and were in many ways quite similar to each other along the four exterior dimensions of our wheel, although they differed to some extent in the initial status characteristics they possessed. This allowed us to focus on how the effects of the four elements of the wheel depicted in Fig. 1 were shaped by differences in urgency and effort (Yin, 2003) while constructing a more nuanced picture of how the elements of the wheel interact to determine a VC's journey toward the center of the industry network.

## BENCHMARK AND AUGUST: A TALE OF TWO VENTURE CAPITAL FIRMS

By 1995, the venture capital industry was becoming increasingly attractive to talented, enterprising individuals and potential investors alike. Excitement stemmed from what appeared to be a robust IPO market in conjunction with the enticing commercial possibilities of the Internet and its promise to change everyday life and business in fundamental – though extremely unpredictable – ways. This uncertainty and unpredictability created space for many true believers in the future success of the Internet tech sector – and a similarly large group of skeptics.

Around this time, two prestigious VC firms disbanded when their founding partners decided to retire. One of these organizations, Merrill Pickard Anderson & Eyre (MPAE), was a pioneering venture firm that had grown out of Bank of America in the 1970s. MPAE had a long history of investment success and its founders were well respected within the VC industry. The second firm, Technology Venture Investors (TVI), was also founded in the 1970s. TVI had been the sole VC firm to invest in Microsoft and had invested in other notable high-tech companies. TVI had a strong reputation among entrepreneurs and investors alike. The breakup of these two established players displaced many of their partners and associates and spawned a number of new VC firms, including Benchmark Capital and August Capital.

### *Founders' Personal Social Capital and Status*

Founders bring their personal prestige and accumulated social capital to their new firms. Founders' social capital includes both relationships *among* the founders, and also their ties to individuals and organizations *outside* the new firm (Adler & Kwon, 2002; Bolino, Turnley, & Bloodgood, 2002; Koka & Prescott, 2002). This social capital can provide considerable value to a new firm from the very beginning and can have lasting effects on the firm's performance and prospects of survival (Fischer & Pollock, 2004; Neergaard & Madsen, 2004). These social resources can also be instrumental in new firms' attempts to overcome the challenges posed by network inertia. In this particular case, the founding partners of August and Benchmark shared employment histories at venture firms of similar status (some even overlapped at TVI), but nevertheless varied regarding the quality and types of social capital they brought to their respective firms.

August Capital (August) was founded by partners David Marquardt and John Johnston, two former partners of TVI whose early stage investment experience prior to founding August included investments in Microsoft, Adaptec, Compaq, Sun Microsystems, Seagate, Intuit, Sybase, Visio, Actel, and ViewLogic. David Marquardt is a prominent and high-status member of the VC community; he was a co-founder of TVI and the lead VC for the Microsoft deal. To this day he continues to serve on Microsoft's board.

Benchmark Capital (Benchmark), in contrast, was founded by four individuals, with respectable – but not extraordinary – records and reputations: Robert Kagle from TVI; Bruce Dunlevie and Andrew Rachleff, both from MPAE; and Kevin Harvey, a software company entrepreneur with no previous venture capital experience. While not as well-known as their August counterparts, the Benchmark founders were active and visible in VC industry organizations. Bob Kagle, for example, was elected to the board of the National Venture Capital Association and served as the program chair for its 1998 annual meeting. Benchmark also possessed some unusual sources of social capital. Kevin Harvey was well-known among software executives due to his previous experience as an entrepreneur. And in 1997 Benchmark welcomed a fifth partner, David Bierne, who possessed extensive contacts with technology executives worldwide as a consequence of his experience founding executive recruiting firm Ramsey Beirne, which specialized in recruiting executives for technology firms (Stross, 2000).

From their earliest days, the two firms took significantly different approaches to building their networks and leveraging their initial social resource endowments. In the simplest terms, August seemed to take its time,

moving at a very deliberate pace. In the several months following the close of its inaugural fund, August made only one small investment for about \$1 million (representing approximately 1% of its total fund). Our reading of a variety of contemporary descriptions of August's behavior and our examination of their investment behavior suggests the self-confident manner of a "master of the universe" that felt little urgency or compulsion to hurry in making investments and putting the new firm on the map.

In contrast, Benchmark's behavior was more assertive and exhibited urgency and effort from the beginning. The founders set for themselves the audacious goal of becoming the world's number one venture capital firm within 10 years (hence the "Benchmark" name). They subsequently entered the market in an aggressive manner. Within six months they had funded six startups, investing about a quarter of their total fund. These ventures ranged from Silicon Gaming, a casino software and solutions company, to Xantel, a manufacturing resource planning company focused on the medical device industry. The broad range of these investments – and the fact that none of these early investments turned out to be a big win – reinforces the sense that these investments were made in a hurry.

Benchmark's behavior also suggests the founding partners understood they would be unlikely to win by acting like *prima donnas*; rather it would require they work together to effectively leverage the resources at their disposal. To this end, when establishing their ownership structure they broke with the industry tradition of a star system and decided instead that profits would be distributed equally among the partners. This practice, they believed, would eliminate the infighting among partners common at other firms. Even as they added partners over the years, the four original founders never claimed titles such as "senior" or "founding" partners for themselves and they continued the policy of sharing profits equally (although their joint share of the firm's profits were proportionately reduced with each new partner). They also eschewed the common practice of hiring a second tier of non-partner associates to handle much of the grunt work and sifting of deals required in the venture capital business. While limiting their ability to leverage the partners' skills and experience, this policy increased their urgency and effort in making the best use of their limited time and resources and heightened their ability to identify promising "diamonds in the rough" that might be overlooked by less experienced associates.

Further, recognizing that their new firm did not have the status or cachet that typically accompanies a strong performance history or the presence of a star VC, Benchmark sought to overcome these deficits when going after the most promising new ventures by offering the highest levels of personal



dedication, advice, resources and mentoring. Although this promise carried a lot of weight with some, it was nevertheless no match against the reputations of established, central players in the industry. Indeed, Benchmark was shut out of a number of early deals they actively pursued. Nor was Benchmark able to depend heavily on its own network to gain access to central players' promising deals; instead, the partners mostly hustled up their own deals. Of the six investments Benchmark made in 1995, four were first round investments. Benchmark was the sole investor in three of these deals (Broadbase Software, Compact Devices, and CW Gourmet). The other three investments included PointCast Inc, Silicon Gaming, and Xantel. Both Silicon Gaming and PointCast were seeking a second round of funding and had been seeded by established VCs, while Xantel was seeking seed round funding. Kevin Harvey led the investments in Broadbase Software and PointCast, leveraging the social capital accrued from his experience founding his own successful software firm. Fig. 2 below contrasts each VC firm's deal networks in 1995.

*Firm's Resource Endowments*

In addition to its founders' initial social capital, a firm's other resource endowments significantly influence its ability to become central in industry networks. In the venture capital industry the amount of capital a firm can raise for its investment funds will shape the number and magnitude of the deals in which it can participate, as well as the extent to which it is able, and seen by entrepreneurs as able, to keep at hand "dry powder" – the capital necessary for participating in or leading later rounds of financing for firms in its portfolio. The size of a VC firm's fund is also often an indicator of its status and success in selling its capabilities to institutional investors, and one common standard for determining VC firm success is a pattern of raising larger investment funds over time (Gompers, 1995; Lee & Wahal, 2004).

Both Benchmark and August were able to raise moderately large initial funds by the standards of 1995 (later, many funds became much larger). The initial Benchmark fund closed at \$85 million while August's first fund was \$98 million. It is interesting to note that some investors expected new firms trying to raise their first funds to provide investors more generous terms than established funds in return for their participation, even if they have had prior relationships with the new VC firm's partners and had invested with them at their previous firms. In 1995, the standard proportion of a fund's profits retained by the general partners in a venture fund was 20%, with

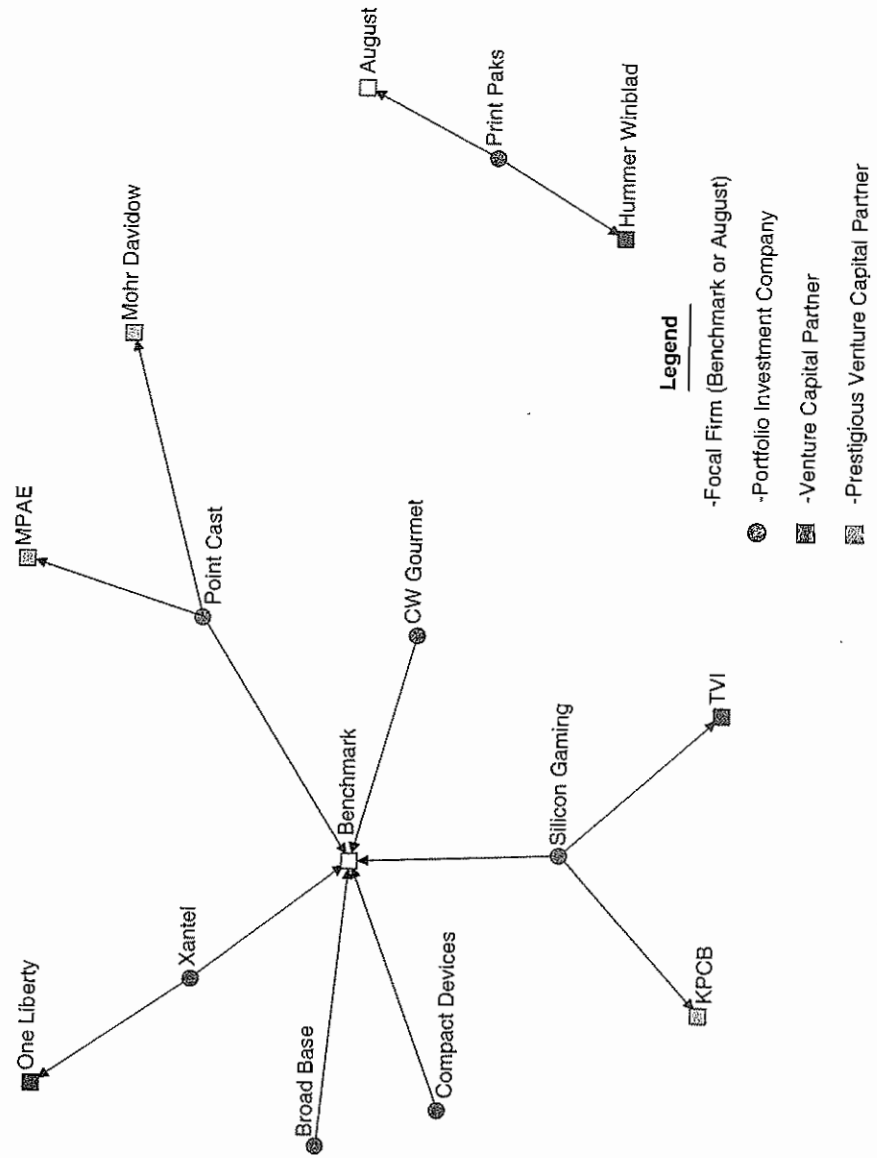


Fig. 2. 1995 Deal Networks for Benchmark and August Capital.

only one superstar firm – Kleiner Perkins Caufield and Beyers – able to command a 30% “carry” from its investors (Stross, 2000).

In an audacious move, Benchmark decided that it would also demand a 30% carry from its investors; they did, however, give this demand a creative twist. They agreed to accept a 20% carry until investors had fully earned back their initial investments and would also accept a declining management fee (the service fee VC firms take not from profits but directly from investable capital) as the investments started to yield additional returns and the carry grew. They also put 3% of their own capital into the fund, which was triple the industry standard 1% (Stross, 2000). Despite these “performance-based” incentives for the VCs, some investors still balked. As a result, Benchmark’s brash behavior and failure to “know its place” as a new venture capital firm alienated some institutional investors. For example, the endowment manager at Stanford (the alma mater of several of the partners) refused to invest in their fund and successfully lobbied two other institutional investors to withdraw their commitments. Benchmark nonetheless successfully raised its first fund on terms equivalent to those extracted by VC firms at the very pinnacle of the industry. As we discuss in greater detail below, Benchmark used this initial resource endowment effectively to begin building both its ties to other VC firms and a portfolio of high potential firms while August continued to engage in its safer and more measured pursuit of investment opportunities.

#### *Firm's Affiliations with Prestigious Industry Members*

Gaining legitimacy via the institutional support of powerful external players can be an important determinant of future network formation opportunities for new firms (Baum & Oliver, 1992; Miner, Amburgey, & Stearns, 1990). Within the VC industry, venture capitalists often collaborate with other VC firms when seeking financing for potential portfolio investments. Over time, networks of VC firms tend to develop in a manner similar to that described by Gulati and Gargiulo for alliance formations (1999). These networks are often referred to as “VC syndicates” and provide access to novel information and lucrative opportunities (Podolny, 2001; Sorenson & Stuart, 2001). Not surprisingly, gaining entrance to a prominent syndication network can be quite difficult for new VC firms. One way to break into these networks is to be invited by established or central players. These established players may be willing to welcome a non-central partner if the invitee offers unique resources not available from other available partners (Ahuja, 2000;

Mitchell & Singh, 1992). Invitations to partner with prominent VCs can not only directly affect a new VC’s future network formation opportunities, they can also change the existing network structure for the firm, thereby moderating the original relationships between existing network structure and future network formation opportunities.

As the two firms entered their second year, August continued its more conservative approach and made no additional investments in the first three months of 1996. It appeared, rather, that the August partners continued to work with ventures they knew from their TVI days but in which August had not yet made investments. Finally, in April of 1996, August invested along with six other VC firms in Be, Inc., a company that TVI originally funded in 1992.

In contrast, Benchmark wasted no time in putting together deals and creating a wide set of investment network relationships for their firm. Benchmark made its first investment of 1996 on January 1st – a second round investment in Xantel, which was completed a scant month and a half after the seed funding round. This second round also provided an opportunity to seek out other potential investment partners and Benchmark ended up co-investing with two additional VC firms (St. Paul Ventures and Lightspeed Ventures). Barely pausing between investments, by the end of the first quarter of 1996 Benchmark had invested a total of \$41 million in seven companies (three of which they initially funded in 1995) and had partnered with more than ten additional VC firms. Thus, while Benchmark was hustling riskier but more affordable investments in earlier stage companies with big upside potential, August was carefully seeking later-stage deals that required more capital but bore lower risks per dollar of investment.

The remaining three quarters of 1996 would see this pattern continue, as Benchmark invested aggressively (still mostly in early stage ventures) while August maintained its more measured approach. Benchmark would ultimately invest in 18 companies in 1996 for a total outlay of \$92 million. Benchmark’s first \$85 million fund had been completely invested by September of 1996, providing a brief pause in investing activity as the partners began to raise their second fund. The second fund would not be completed until early 1997, but that did not stop Benchmark from making a few small seed round investments in December 1996. August ultimately invested in five companies during 1996 for a total outlay of \$30 million, less than a third of the fund it had raised in 1995. Fig. 3 contrasts Benchmark’s and August’s 1996 deal networks.

Benchmark’s urgency and effort resulted in a series of rapid-fire investments and an extraordinary increase in the number of relationships

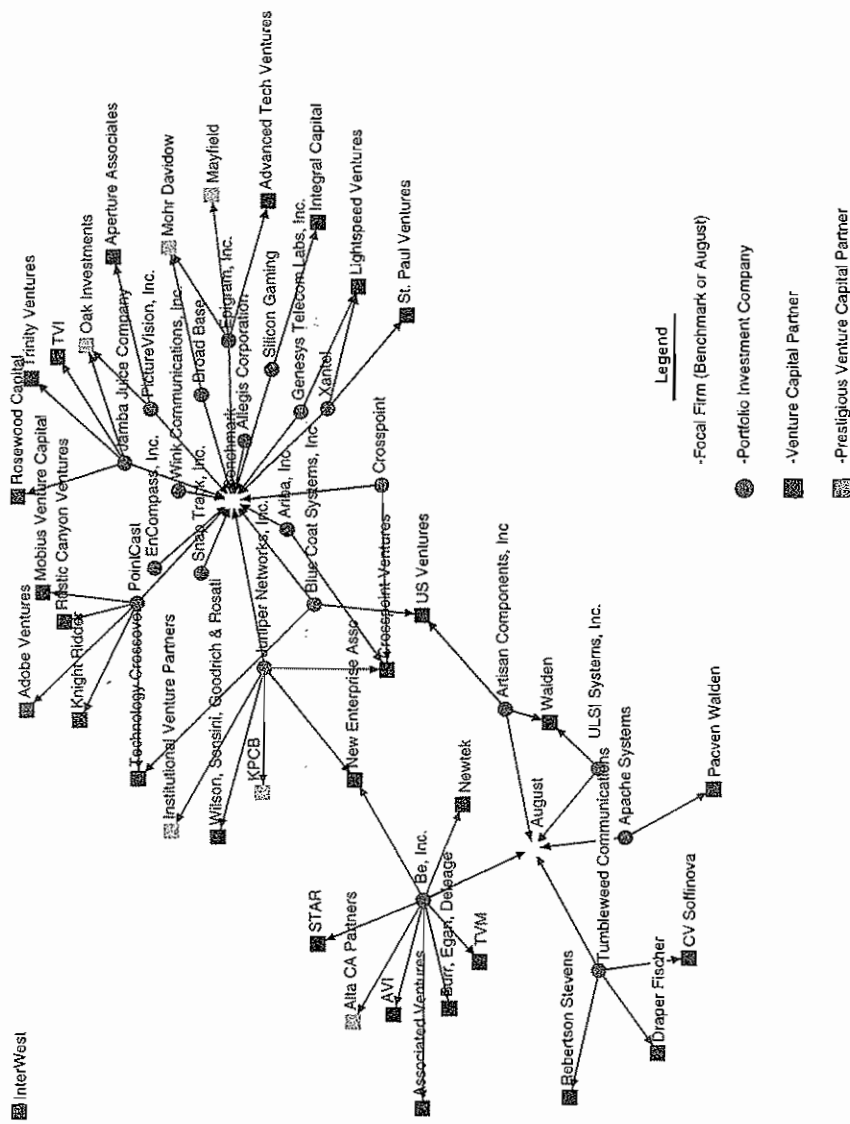


Fig. 3. 1996 Deal Networks for Benchmark and August Capital.

with prominent players. As Figs. 1 and 2 show, Benchmark's founders were able to leverage their individual-level social capital and the large set of deals they put together to attract high-profile co-investors. For example, Silicon Gaming had received its first round of funding (\$1 million) from TVI, where Bob Kagle had managed the investment. After co-founding Benchmark, Kagle continued to work with Silicon Gaming and used funds from Benchmark's first fund to provide a second round of financing in 1995. Silicon Gaming carried some status of its own; in part because of TVI's prior investment, Kagle was able to co-invest with Kleiner, Perkins on the deal, creating the first linkage between Benchmark and the 800-pound gorilla of the industry.

Beginning in 1996, Benchmark was starting to co-invest with a number of central and high-status venture capital firms. For example, they partnered several more times with Kleiner, Perkins (Accept.com, Handspring, Impresso, and others), Sequoia (Scient, Mahi Networks, WebVan), and Greylock (NorthPoint, RedHat, Send.com), among others. Although not as active as Benchmark, August also made investments alongside several high profile venture capital firms during the period of this study, including New Enterprise Associates (Atheros Communications, Be Inc., and Seagate Technology Holdings), Sequoia (ebates, Shopping.com), and Kleiner, Perkins (Escalade Corporation and VLSI Technology). In absolute numbers of relations formed Benchmark was more promiscuous; however, on a percentage basis Benchmark and August partnered with high status VC firms at approximately equal rates. Of the 100 firms that Benchmark invested in by the end of 2000, 46% also received financing from prominent and central players in the industry, while the comparable figure for August was 18 of 44, or 41% of its deals.

Further examination of this data yields some interesting insights. Table 1 presents information (compiled from VentureXpert) on total partner and prestigious partner<sup>4</sup> formations for each VC firm on an annual basis. The

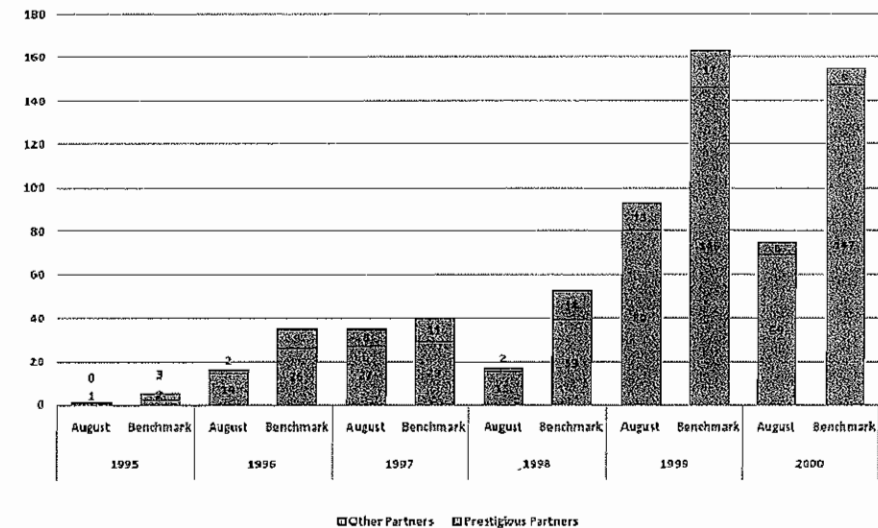
Table 1. Number of VC Partners by Year.

	1995	1996	1997	1998	1999	2000
August (Prestigious Partners)	1 (0)	16 (2)	35 (8)	17 (2)	93 (13)	75 (6)
Benchmark (Prestigious Partners)	5 (3)	35 (9)	40 (11)	53 (14)	163 (17)	155 (8)
<i>Prestigious Partners as Percentage of Total Partners</i>						
August (%)	0.0	12.5	22.9	11.8	14.0	8.0
Benchmark (%)	60.0	25.7	27.5	26.4	10.4	5.2

data in this table reveal that during the first four years of each firm's existence, Benchmark generally partnered with twice as many prestigious venture capital firms as August on a percentage basis and had more prestigious partners in every year on an absolute basis. In Table 2, we aggregated the total number of deals that each firm did with prestigious VC firms. Combined, Benchmark and August partnered with 27 of the 47 prestigious VC firms on Pollock and colleagues' list of prestigious VCs

**Table 2.** Building Relationships with Prestigious VC Firms.

Prestigious VC Partners	Benchmark	August
Accel Ventures	5	1
Advent		1
Alta		4
Asset Management	1	
Austin Ventures	4	1
Brentwood Associates	2	
Canaan Capital		1
Centennial		1
Charles River	2	
Frontenac		1
Greylock	6	5
Highland Capital	1	1
Institutional Ventures	5	1
InterWest Partners	1	
KPCB	9	3
Matrix Partners	2	
Mayfield	1	1
MPAE	1	
Mohr, Davidow	5	1
New Enterprise	2	2
Norwest	1	1
Oak Investment	3	3
Sequoia	8	1
Sigma Partners		1
Sierra Ventures	1	
JH Whitney	1	
WPG Ventures		
<b>Total Deals with Prestigious VCs</b>	<b>61</b>	<b>30</b>
<b>Number of Unique Prestigious VCs Partners</b>	<b>20</b>	<b>18</b>
<b>Percentage of Prestigious VCs with whom Firm did Multiple Deals (%)</b>	<b>60</b>	<b>28</b>



**Fig. 4.** Prestigious and Non-Prestigious Partners by Year.

(Pollock, Chen, Jackson, & Hambrick, 2007). However, Benchmark appears to have been more focused on developing stronger ties. Benchmark formed multiple partnerships with 60% of the 20 prestigious VC firms it partnered with during its first five years. In contrast, August, which began with more founder social capital, focused less on building strong ties with prestigious actors; it only formed multiple deal networks with 28% of its 18 prestigious partners. Thus, Benchmark was more proactive than August in developing embedded ties (Uzzi, 1996) with prestigious firms, especially during its early years. However, once its network position had become more established, Benchmark focused less on overcoming its initial status deficits and began to partner with a wider variety of less prestigious firms. Fig. 4 graphically presents the pattern of prestigious and non-prestigious tie formations by August and Benchmark annually between 1995 and 2000.

#### *Firm's Visibility-Enhancing Performance*

Firms must often rely on the resources generated by their founders' social capital and effort until they have an actual performance record to which they can point (Starr & MacMillan, 1990). As a venture is able to achieve visibility via successful performance it should also gain access to more future

opportunities, thereby increasing future performance prospects. Pollock and Gulati (2007) note that the ability to achieve attention and generate hype, or “buzz,” was essential for technology start-ups during this period to become successful. They quoted one tech company CEO as stating that “firms had to create their own self-fulfilling prophecies” (Pollock & Gulati, 2007, p. 346), and that an obvious way to accomplish this is through outsized market performance. It stands to reason that such visibility-enhancing performance would also be important for new venture capital firms (Gompers, 1995; Lee & Wahal, 2004). With all this talk of effort, status, endowments, and positioning, it is easy to forget that hitting a home run and making a lot of money counts for a great deal in the world of VC investments!

The reputational advantages that accrue to VCs involved with IPOs attract both co-investors and entrepreneurs alike, and VCs – especially during hot markets, such as existed in the late 1990s – have typically viewed IPOs as the ultimate, and most profitable, endgame for a portfolio company (Guler, 2007). Indeed, in a recent study conducted using IPO data from the late 1980s and early 1990s, Guler (2007) found that the average return to VCs on investments in companies that eventually went public was 1,608%, compared to a return of 446% on acquisitions. Other studies indicate that just 10–30% of VC investments result in IPOs, and that the top 10% of a VC’s investments account for 62% of the venture fund’s total return (Fenn, Liang, & Prowse, 1997; Guler, 2007; Scherer, Harnoff, & Kukies, 2000). Thus, to the extent a VC firm’s efforts allow it to unearth and/or develop a firm that becomes a home run investment, it enhances its ability to become more visible and successful, and hence cognitively central and available, to other industry actors.

August’s first two funds (with a combined total of \$300 million) were fully invested in 34 companies by 1999. Overall, August invested in 44 companies from 1995 to 2000 with an average investment of \$6.8 million. Among these companies were big names such as Epinions.com, Cobalt Networks, and Be, Inc. As Fig. 5 shows, during our period of study seven of August’s investments underwent initial public offerings (IPOs). The median return for the seven firms that August took public was 585%. Their two most successful IPOs during this period were Cobalt Networks and Silicon Image. August’s investment of \$10 million in Cobalt Networks was worth \$336 million at the end of the day Cobalt went public – a 3,360% return. Silicon Image was similarly successful; August’s \$8.3 million investment in this firm was worth \$119 million after the first day of trading, generating a 1,444% return.

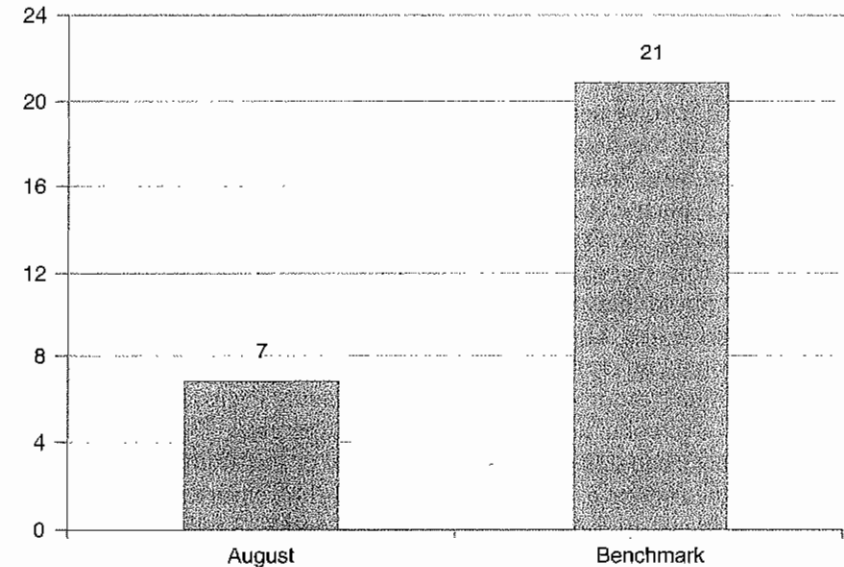


Fig. 5. IPO Activity, 1995–2000.

Benchmark likewise experienced a number of successes among its portfolio companies. Of the 100 firms Benchmark invested in during the 1995–2000 period, 21 underwent IPOs. The median return from the IPOs of these 21 firms was 3,148%. Among Benchmark’s most notable successes was the online auction service eBay, widely regarded as one of the best-performing venture investments of all time. In 1997, Benchmark invested \$2.6 million from its \$125 million Benchmark II fund into eBay, obtaining a 22% share in the company. On the day of its IPO in 1998 this stake was worth \$414.4 million, representing a 15,707% return on investment. By early 1999, Benchmark’s stake had increased in value approximately six times since the IPO and was worth \$2.5 billion. Although eBay was its most famous investment during this period, it was not its biggest winner. That honor goes to the \$1.5 million it used to purchase a 9.9% stake in NorthPoint Communications, which was worth \$413.4 million at the close of the day it went public – a stunning 32,055% return on investment. These and other early successes allowed Benchmark to raise its \$175 million Benchmark III fund in 1998 and its \$1 billion Benchmark IV fund in 1999. Fig. 5 compares the IPO activity of each VC firm during the period under study.

Although we do not want to focus excessively on Benchmark's big eBay hit, its urgency and effort clearly played a role in this firm's success. eBay chose Benchmark over other VC firms in part because of its "high touch" approach and involvement with its portfolio firms, and also because of its ability to recruit top flight executive talent. It is clear that eBay would not have attracted Meg Whitman as their CEO without the efforts and contacts of Benchmark partner David Bierne. Benchmark cannot claim total credit for eBay's success, however; other factors, including some measure of luck also played a role. For example, no one could have grasped the role the eBay community would play in helping it fend off competition from more established firms like Amazon and Yahoo (Stross, 2000). Although eBay is the most prominent example, overall Benchmark was able to successfully leverage its initial resource endowments by engaging in sustained efforts that allowed it to overcome its initial status disadvantages and position itself as at least August's equal. By the end of the period of our study, both firms had established themselves as legitimate players in the venture capital industry. Today, Benchmark and August hold \$3 billion and \$1.3 billion, respectively, under management.

In light of the preceding discussion, it is useful to gauge how successful each VC firm ultimately was in achieving structural centrality within the overall VC deal network. Using VentureXpert, we collected data on all 112 VC firms founded in 1995 and traced the syndication activity of each firm over the entire period under study (1995–2000). We recorded symmetric ties as existing when a focal firm partnered with another VC firm in an investment syndicate. The aggregate networks for each year thus consisted of the 1995 "class" of VCs and all other VCs with whom they invested. Degree centrality scores were then calculated for each firm. Fig. 6 traces the evolution of August's and Benchmark's structural centrality. For sake of comparison, we note the structural centrality scores each year for the 75th percentile of the class of 1995 (August's and Benchmark's peers), which represents a reasonable benchmark for success. The graph indicates that both August and Benchmark were clearly at the top of their class in terms of achieving prominent and central positions in their industry network.

## DISCUSSION AND CONCLUSION

Social structure, including network structure, has been described as the locus of both opportunity and constraint (Bourdieu & Passeron, 1990; Dagnino et al., 2008; Giddens, 1984; Rowley & Baum, 2008). But the

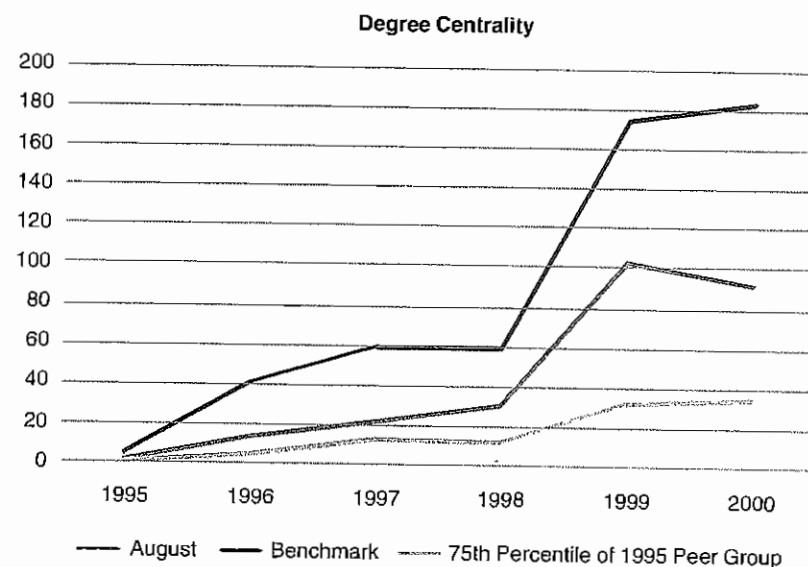


Fig. 6. Evolution of Structural Centrality, 1995–2000.

relationship between opportunity and constraint is not purely structural; it is also cognitive, social psychological, and behavioral (Madhavan et al., 2008; van Liere et al., 2008). In this chapter, we have suggested that the founders' sense of time urgency and their willingness to be assertive in taking risks and exerting substantial effort play a strong role in shaping the meaning and influence of four important factors – founders' social capital, initial resource endowments, prestigious affiliations, and visibility-enhancing performance – on the overall success and future viability of a new venture.

These effects are cognitive in the sense that they depend on how the founders think about what they are doing and how they assess their current situation. It appears that the elite social position of August's founders prompted them to take a careful and deliberate approach to managing their firm. Not only were they more circumspect in the investments they made, they also exhibited less concern with actively developing and strengthening ties with prestigious VC firms, perhaps because they felt access to these prestigious firms could largely be taken for granted and would be available when needed given the specific status signals offered by their past accomplishments at TVI (Bunderson, 2003). In contrast, we suspect that

Benchmark's founders perceived their somewhat less-prestigious status as an opportunity to engage in audacious goal-setting and frame-breaking behaviors that increased their cognitive centrality within the industry. Rather than enacting the resource limitations suggested by their "objective" endowments (Baker & Nelson, 2005; Weick, 1979), Benchmark's founding partners consciously structured their firm and initial investment fund in ways that belied the firm's newness to the industry. Thus Benchmark became cognitively central, it seems to us, largely because it took assertive actions (Bunderson, 2003; Dagnino et al., 2008) and acted as if it was already a dominant, central player in the industry, or at least was destined to claim such a position. Perhaps the most prominent example of this was Benchmark's boldness in claiming a 30% carry, which was previously charged only by Kleiner Perkins, the titan of the industry. Benchmark's aggressiveness in repeatedly pursuing investment partnerships with prominent, established VC firms further demonstrated their own belief in their ability to play at the top of their industry.

The relationship between opportunity and constraint in this narrative is also social-psychological because of the way in which the contrasting approaches of the two new VC firms apparently shaped the perceptions of others. Consistent with the Matthew Effect, August's success is truly "the rich getting richer." Forgive us for ignoring the already substantial wealth of the Benchmark founders – it's a matter of context here. Others appear to have interpreted the specific status characteristics of August's founders in ways that provided them access to deals with other high status actors at later stages of investment. In contrast, Benchmark's success illustrates another Robert Merton conceptualization, *the self-fulfilling prophecy* (Merton, 1968b). In Benchmark's case, it appears that investors, entrepreneurs, and other VCs responded in a manner that supports an alternative claim to the Matthew Effect: those who *act* like they have, get. Benchmark's refusal to play the role of an underdog or "rookie," including its aggressive pursuit of access to the best deal syndicates and its demands for a 30% carry illustrate how its self-perception became its enacted reality.

This point also serves to reinforce the notion that cognitive centrality may precede, rather than simply mediate, structural centrality. For example, Benchmark's demand for a 30% carry may have served as an indirect status signal to others who used it as an indicator of Benchmark's performance capabilities. In doing so, Benchmark became a more cognitively available and central player, despite its lack of structural network centrality. Further, Benchmark's efforts to identify and invest in lucrative deals and then invite

other prestigious VCs to invest in later rounds was another way of displaying expertise in deal finding and making, which are critical skills in the venture capital industry. This too may have served to increase its cognitive availability and centrality. This growing visibility and reputation for deal-making expertise then generated subsequent opportunities to collaborate with other high status VCs, thereby improving Benchmark's structural centrality within the network.

Finally, the relationship between opportunity and constraint is behavioral in the sense that although Benchmark could easily have figured it was constrained by its resource limitations and thus moved slowly and carefully to discover whatever narrow advantages its idiosyncratic experiences, talents, resources and position might have provided, it instead acted in ways that demonstrated little regard for objective constraints and social standing. In this sense, our chapter joins a growing chorus of voices arguing that resources and resource constraints are often not conducive to objective valuation, but are – to an extent that is often difficult to predict – dependent upon the internal vision and subjective valuation of firms themselves (Baker & Nelson, 2005; Mishina, Pollock, & Porac, 2004; Penrose, 1959). Indeed, as Brass and Burkhardt (1993, p. 466) note, "strategic action can be used to compensate for relatively weak resources. Skillful political activity is one tool for overcoming a lack of resources or making less valuable resources more potent. Actors in powerful positions, who control ample resources, are less dependent on their capabilities to use resources strategically than are actors who lack ample resources." Compared to established and prominent players, Benchmark did not have a wealth of financial or social resources. It was, however, able to overcome its structural constraints through careful and deliberate actions and choices (and some luck). The venture capital industry may be a particularly good context for future study of these issues, as it continues to be home to a rare combination of entrenched, privileged elites and aggressive newcomers of all stripes, all seeking central positions within the industry network and the privileges such positions bring.

In this chapter we set out to explore how new firms can become central players in industry networks. We developed and illustrated a process model of centrality development and illustrated its applicability using a case study of two venture capital firms. Future research using other data and methodological approaches should continue to explore the relationship between cognitive and structural centrality, as well as the forces and dynamics that drive network evolution and change over time.

## NOTES

1. Much of the material for this section is drawn from the historical review of the industry provided by Gompers and Lerner (2006).
2. Based on data obtained from Thomson Financial's VentureXpert database.
3. As the general partners of the venture funds, VCs typically receive an annual fee equal to 1.5–3% of the capital under investment in the fund, plus a specified percentage of the total profits, or "carried interest" (referred to within the industry as "the carry") generated by the fund. The rest of the profits are distributed to the fund's limited partners.
4. Prestigious VC firms were identified based on the list compiled by Pollock et al. (2007), who identified the VC firms that raised the 10 largest funds annually between 1990 and 1995. The final list included 47 VC firms.

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