

Does Diversity Among Co-investing Venture Capitalists Add Value for Entrepreneurial Companies?

by

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Abstract

The number of syndicate partners in the first round of venture capital financing is positively related to the success of the entrepreneurial company. I examine whether heterogeneity within the syndicate drives this. I find that syndicates composed of venture capital firms from different geographic regions perform better than syndicates composed of venture capital firms from the same region. But I find that syndicates that are diverse in terms of organizational structure (traditional, corporate, bank, angel) perform no better than those that are not. My results are consistent with the notion that syndicate partners add value through their access to different business ecosystems.

Executive Summary

Entrepreneurial companies that receive funding from a syndicate of venture capital (VC) firms are more likely to go public or become acquired than companies financed by a single venture capitalist (Brander, Amit, and Antweiler (2002), and Tian (2008)). I confirm this finding and also find that the relation is roughly monotonic, i.e., the larger the syndicate in the first round of VC financing the higher the probability of a successful outcome (IPO or acquisition) for the entrepreneurial company. Given this, a natural question is: What is the source of this improved performance among larger syndicates? This study examines the role that investor heterogeneity plays. Members of VC syndicates vary in terms of size, age, experience, organizational structure, geography, prior success, and expertise, but existing research does not address the effects of these potential complementarities between partnering VC firms. My study fills this gap by illuminating the value-added role that a partnership of VC firms plays above and beyond the provision of capital.

There is a potential value-added role for heterogeneity across investors because venture capitalists (VCs) provide not only equity financing but also monitoring and advice for risky new ventures (Lerner (1995)). In most cases, this non-financial support comes from more than one VC. There are multiple reasons VC firms may syndicate. According to venture capitalists themselves, the biggest reason is to diversify their portfolios (Lockett and Wright (1999)). If a VC firm can find other venture capitalists to invest in its portfolio companies, this frees up money for it to invest in additional, potentially unrelated portfolio companies.

Another reason venture capitalists bring in other investors is for a second opinion (Lerner, 1994). Venture capitalists typically invest in high-tech industries that are difficult to understand. The pooling of information and knowledge is one way to reduce the complexity of the decision-making process.

The final reason for syndication that is cited in the literature is the value-added proposition (Brander, Amit, and Antweiler (2002)). Venture capitalists specialize by geography, stage, and industry of the entrepreneurial companies. And they are known to provide their entrepreneurial companies access to executives, customers, and suppliers that they have previously worked with. Bringing in new venture capitalists as investors broadens the business network available for the entrepreneurial company to tap.

Syndication might not always be beneficial. Constraints or costs to syndication include diffusion of incentives and potential opportunism among syndicate members, such as expropriation of information, talent, or investment opportunities (Guler and McGahan (2007)). Additionally, disagreements and coordination problems with items such as contract writing may arise as the entrepreneurial company grows and becomes more complex. However, I find that on average, syndication is correlated with better outcomes. Without controlling for other factors, I find that each additional syndicate partner in the first round of VC financing is associated with a 3.2 percentage-point increase in the probability of a successful outcome (IPO or acquisition) for the entrepreneurial company that receives the VC

funding. I also find that certain types of heterogeneity play a role in this increased performance.

One such possibility is geographic heterogeneity. In 1986 Office Depot opened its first store in Fort Lauderdale, Florida. The next year, it raised \$11 million in first-round financing from VC firms located in Texas, California, New York, New Jersey, Connecticut, and London. In 1988 Office Depot went public, and by 1990, it had opened 173 stores in 27 states. Different syndicate partners have access to different business networks outside the entrepreneurial company's geographic region. Venture capitalists are often former entrepreneurs themselves and are very familiar with their local business networks, which include customers, suppliers, and executives. Hellmann and Puri (2002) find that VCs are instrumental in bringing in executives such as CEOs when new management is needed and VPs of Sales and Marketing when the entrepreneurial company needs to expand. VCs from different geographic regions can provide access to these value-added customers, suppliers, and managers that are unfamiliar to the entrepreneurial company. Consistent with this notion, I find evidence that syndicates composed of VCs from different geographic regions outperform syndicates composed of VCs that are all from the same region. Specifically, I find that after controlling for multiple factors, a syndicate that has two or more VC firms from different geographic regions (there are 18 total) is associated with a 3.4 percentage-point increase in the probability of a successful outcome (IPO or acquisition) relative to a syndicate composed entirely of VC firms from the same geographic region. Hochberg, Ljungqvist, and Lu (2008) find that more densely

networked markets experience less entry from VC firms from outside geographic regions. My finding suggests that when this barrier to entry is overcome, improved performance from the VC-backed entrepreneurial company is realized.

Age, or experience, is another dimension along which syndicates can exhibit heterogeneity. Interviews with VC firms have shown that experienced VC firms may prefer working with younger VC firms as the younger firms are more likely to “stay out of the way” (Walske and Zacharakis (2008)). Bottazzi, da Rin, and Hellmann (2008) find that older VCs excel at future fund raising for the entrepreneurial company. Younger VCs are more likely to be familiar with the products and technology of the entrepreneurial company. Thus, age-diverse syndicates may offer firms with different skills, knowledge, and business networks. I find evidence to support this notion: as the standard deviation of VC firm ages within a syndicate increases, so does the probability of a successful outcome (IPO or acquisition) for the entrepreneurial company. It should be noted that its economic significance and statistical significance are nowhere near as strong as the results concerning geographic heterogeneity.

Finally, syndicates can differ in terms of organizational structure. Consider the case of corporate VCs, which differ markedly from traditional VCs in terms of organizational and incentive structures. Corporate VCs are often more interested in fulfilling strategic objectives such as learning about and/or capturing new technologies. Additionally, their incentives differ in that they are not faced with the same pressure to realize financial returns before a fund expires. However, they often

have firsthand knowledge of the industry and technology of the entrepreneurial company they invest in. Traditional VC firms tend to focus on management performance and financial benchmarks. As such, it is possible that corporate VCs add a different type of value than the traditional VC firm does. In the mid-1990s, VeriSign Inc. received VC funding not only from traditional VC stalwarts Bessemer Venture Partners and Kleiner Perkins Caufield & Byers, but also from Visa, Microsoft, and Cisco. This investment worked well, but overall, I do not find that corporate VC firms add value to a syndicate above and beyond a typical VC partner, despite their different skills and knowledge bases. This is somewhat surprising given the strong value-added effects found in prior literature (Gompers and Lerner (1999)).

I find a similar lack of an incremental effect for bank VCs. Bank VCs have structures and compensation plans similar to those at traditional VC firms, but are likely to be even more in tune with profitable exit channels, i.e. IPOs and acquisitions. However, I find that adding a bank VC to a syndicate does not improve the probability of the entrepreneurial company going public or being acquired above and beyond what a typical VC partner would add.

An angel investor is an individual who provides capital from his or her own funds to a private business, owned by neither a friend nor a family member (Shane, 2008). Angels may have different incentives than traditional VC firms. So at first blush, they may be expected to provide complementarities. However, angels are typically passive investors. They are often previous or current entrepreneurs that are interested in cultivating local entrepreneurs. In some sense, they may have a more

philanthropic motive rather than an interest in pure financial returns. I find that adding an angel to a syndicate decreases the probability of success, albeit at a statistically insignificant level. Thus, I conclude that angels don't provide value-added complementarities to a typical syndicate.

Overall, I find that VC heterogeneity in terms of geography plays the biggest role in adding value to entrepreneurial companies. My findings are most consistent with the notion that syndicate partners' business networks are more important than syndicate partners' complementary skills and knowledge. Of course, selection could be driving this result, i.e., geographically heterogeneous syndicates may be more likely to select stronger ventures in which to invest. To account for this, I utilize a treatment-effects model and find that my results are even stronger after controlling for selection.

Using a treatment-effects model requires the use of a selection equation. In other words, I need to estimate the drivers of syndication so as to control for them when estimating syndication's impact on success. This process, while not my main question of interest, illuminates which types of firms are more likely to be syndicated in the first round. Seed investments are the most likely to be syndicated. This is intuitive given that one of the main reasons for syndication is to reduce information asymmetries between entrepreneurs and their investors. Along these same lines, the only consistently statistically significant entrepreneurial company industry is non-high-technology, and its coefficient is negative. Since these companies' businesses are less complex, it is not surprising that they are syndicated less frequently; VC

firms are less likely to seek a confirmatory opinion if the business is easy to understand. Lastly, it should be noted that industry inflows are associated with lower syndication rates. This suggests that in periods of easy money, there is less need for syndicate partners and their money.¹

Back to my original questions of interest, a natural question is whether my results are being driven by the fact that only syndicates can have nonzero heterogeneity measures. Since all singletons have zero heterogeneity measures, I exclude them and find that my results are strikingly similar. The most important result (geographic heterogeneity) drops by roughly one-tenth of a percentage point. I conclude that my results are not being driven by the way I have constructed my heterogeneity measures.

In the final paragraphs, I attempt to assess how robust my results are. Specifically, I examine whether my results hold up across regions of the entrepreneurial companies, industries of the entrepreneurial companies, investment amounts, and exit types (IPO or acquisition).

First, I use two broad categories for location of the entrepreneurial company: coastal and interior. Coastal includes the following geographic regions: Mid-Atlantic, N. California, New England, New York Tri-State, Northwest, S. California, and Southeast. For coastal entrepreneurial companies, the geographic heterogeneity of the VC firms plays a much stronger role. Looking at specific coastal regions yields some

¹ It should be noted that this negative relation doesn't hold during and after the Internet bubble, but my data ends in 1997 so as to allow ten years (the normal contractual obligation) for venture capitalists to exit their investments.

interesting results. For example, there is no effect for N. California (Silicon Valley) companies but rather strong effects for New England (Boston/Cambridge) and New York Tri-State. This could stem from the fact that the biggest VC ecosystem is Silicon Valley. Perhaps VCs there are in less need of outside help.

As far as industry of the entrepreneurial company is concerned, I find that my geographic heterogeneity result is economically significant for all industries save the computer industry. However, it is only statistically significant for the biotechnology and non-high-technology industries. This could be resulting from slicing the sample thinner and thinner.

Next, I break the investments out by amount to examine whether my geographic heterogeneity result holds up. Although the results are not quite statistically significant, the strongest result in terms of economic significance is from the lowest quartile of first-round investment. This suggests that geographic heterogeneity is more important for the smallest portfolio companies. There are two important points here: syndications in the smallest companies are the least likely to be done for diversification purposes. The second point is that the smallest investments are the least prone to reverse causality issues, i.e., VCs are less likely to be investing in sure things with small investments. Both points lead to the conclusion that these small-investment syndications are more likely to be for the purpose of adding value to the portfolio company, rather than for diversification or help with selecting good companies in which to invest.

Finally, I assess whether my results hold up by exit type (IPO or acquisition). Interestingly, the geographic heterogeneity results are stronger for acquisitions whereas the age heterogeneity results are stronger for IPOs. If reverse causality were an issue, it would more likely be an issue with the IPOs, i.e., investing in a sure thing would more likely result in an IPO than an acquisition. Thus, this is more evidence that the geographic heterogeneity results are robust to selection effects.

In conclusion, the result that geographic heterogeneity among venture capital firms is a good thing for the entrepreneurial company holds up reasonably well. This is consistent with the notion that one of the major ways venture capital firms add value is via their access to business networks with executives, suppliers, and customers. The wider the geographic presence of these networks, the more potential value-added resources there are for the entrepreneurial company to tap.

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