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Do investors and entrepreneurs match? – Evidence from The Netherlands and Sweden

Friedemann Polzin[a,*], Mark Sanders[a], Ulrika Stavlöt[b]

[a] Utrecht University School of Economics (USE) and Sustainable Finance Lab (SFL), Kriekenpitplein 21-22, 3584, EC, Utrecht, The Netherlands
[b] Forum for Reforms, Entrepreneurship and Sustainability (FORES), Kungsbroplan 2, 112 27 Stockholm, Sweden

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A B S T R A C T

Entrepreneurs and investors face challenges in the 'thin market' for early stage entrepreneurial finance. Improving this situation has been a priority of policy makers for at least a decade, however, the challenges in this matching process are still poorly understood. Theory suggests that matching problems may originate in different perceptions in areas such as evaluation criteria, risk and risk management by investors and entrepreneurs. To find a good match it seems essential to understand what is important to your counterpart. Based on a mixed methods approach using data collected in semi-structured interviews and a survey with both entrepreneurs and investors mostly active in green tech innovation, this study systematically analyses where their perceptions deviate and where frictions in the matching process may occur. We find that a mismatch exists in the perception of risk, the importance attached to risk, the search channels used to find a potential partner and the evaluation criteria applied in evaluating a proposition (i.e., exit, innovativeness, capabilities of teams). This paper suggests that increasing market transparency and creating a mutual understanding of the investment process will prevent potentially damaging perception misalignment from arising in the first place.

1. Introduction

This paper explores how financiers and entrepreneurs approach matching in thin markets for venture capital (VC). There is growing interest in the interplay between finance and entrepreneurship (Mina et al., 2013; Polzin, 2017; Stucki, 2014). High-impact entrepreneurship is an important driver in any transformation process (Cohen and Winn, 2007; Marcus et al., 2013; Wüstenhagen and Wuebker, 2011). However, young, high-impact entrepreneurial firms are also the most finance-constrained (Demirel and Parris, 2015; Giudici and Paleari, 2000; Mina et al., 2013; Stucki, 2014). It has been argued that this constraint does not lie in a shortage of funds or ideas. Indeed, venture capitalists (VCs) finance potential breakthrough innovations, and funding for disruptive technologies is not constrained on the supply side (Nightingale et al., 2009). Also, there is seemingly no shortage of entrepreneurs with potentially profitable new business ideas.

The bottleneck is in the matching process: entrepreneurs struggle to find and then secure investment, whereas investors struggle to identify and establish projects that are investment grade (Bertoni et al., 2015b; Nightingale et al., 2009). Despite abundant funds and ideas, however, evaluating the ideas and negotiating a deal requires a lot of specialised knowledge and time-consuming exchange and verification of information. Both sides of the market face high search and transaction costs to facilitate a successful match. The problem is exacerbated by the fact that the venture capital market is highly compartmentalised (Nightingale et al., 2009). The matching process in venture capital can therefore be characterised as a 'thin market', with only a few relevant and active investors for any entrepreneur and a limited relevant group of entrepreneurs for any investor (Bertoni et al., 2015b; Hall et al., 2016; Hopkins et al., 2013; Nightingale et al., 2009).

Scholars have modelled the matching between investors and entrepreneurs as a two-staged process, in which entrepreneurs look for investors first and then investors evaluate the entrepreneurs who find them. From these models, one can derive propositions about selection mechanisms based on the ventures' characteristics (Bengtsson and Hsu, 2015; Bertoni et al., 2015b; Eckhardt et al., 2006; Sørensen, 2007). In this paper, we build on that literature by adding the possible effect of entrepreneur and investor *perceptions* on the matching process. To the best of our knowledge, that element has hitherto been missing in the analysis of actual deal flow and completed as well as aborted investments.

As a starting point, we assume that to effectively and efficiently find a match in a 'thin market' it helps if investors and entrepreneurs understand each other's motivation, position, concerns, evaluation criteria

* Corresponding author.
E-mail address: f.polzin@uu.nl (F. Polzin).

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and priorities (Bengtsson and Hsu, 2015; Franke et al., 2006; Ruef et al., 2003). If entrepreneurs search for investors using different channels from the ones investors use, if they subsequently pitch information that investors do not value, or if investors demand information or concessions that entrepreneurs are not willing to give, then finding a match will be more difficult. We therefore hypothesise that a better understanding of the other side's position reduces the ex-ante search costs and facilitates the ex-post matching.

To test that hypothesis empirically and in general, however, requires a very complex data collection effort.[1] In this paper, we therefore take a more modest and practical approach in our data collection and we can only investigate how investors and entrepreneurs perceive critical aspects and stages in the matching process. As differences in perception are a necessary condition for the main hypothesis to hold, testing if that condition is met in our data is a useful first step. To ensure that differences in perceptions are not due to differences in culture or industry as well as for practical reasons, we use data that was collected on green tech entrepreneurs and investors in Sweden and The Netherlands. This choice was motivated on the one hand because a shortage of early stage venture finance seems particularly acute in the green technology sector (Foxon et al., 2008; Iyer et al., 2015; Kenney and Hargadon, 2012; Mazzucato, 2013; van den Bergh, 2013). On the other hand, in this capital and knowledge intensive sector, information asymmetries and perception misalignments are more likely. For example Sanders et al. (2013) interviewed Dutch VCs on the potential of investing in capital and knowledge intensive carbon capture and storage, concluding that misaligned perceptions of especially policy risk proved hard to manage.

Our contribution is that we find significant differences in the perception of risks, the choice of search channel and the evaluation criteria for potential deals (e.g., exit, innovativeness, and capabilities of teams). This result implies that misaligned perceptions are a potential problem, even if our data does not allow us to test the hypothesis that such misalignments cause inefficiencies in matching. More research is therefore justified. But as an ounce of prevention is better than a pound of cure, perhaps our results should also motivate policies to prevent and reduce misaligned perceptions in venture capital markets.

The remainder of this paper is structured as follows. Section 2 reviews the diverse body of entrepreneurial finance literature relating both to the perception of the investment process from an entrepreneur's and investor's point of view. Section 3 presents the mixed methods approach consisting of semi-structured interviews and a fully structured survey. Section 4 then integrates the qualitative and quantitative results and relates these to existing theory. Concluding remarks and implications of this study for policy makers are presented in Section 5.

2. Theoretical background

2.1. Thin markets for entrepreneurial finance

Early work on financing of young, innovative companies points towards the existence of a funding gap (also known as the 'valley of death') that relates both to the nature of innovation and the financing of start-ups (Cassar, 2004; Cressy, 2002; Giudici and Paleari, 2000; Hall, 2002). Uncertainty, limited appropriability of the returns, lack of collateral and asymmetric information make early stage ventures unsuitable for bank finance (Berger and Udell, 2006, 2003). As such, more specialised investors emerged to fill this gap. They have developed advanced methods to search, select and monitor potential investment targets in the early/seed stage (Gompers, 1995; Gompers and Lerner, 2001). These investors also add professional services such as networking and managerial advice to support start-up development (Gorman and Sahlman, 1989; Hellmann and Puri, 2002, 2000; Hsu, 2006; Sahlman, 1990). However, this costly, time consuming and knowledge intensive process can only be conducted by a limited number of highly skilled and specialised investors evaluating a limited number of prospective investments. Due to the high degree of diversity in prospective ventures and the intense, long-term commitments involved, the model of the venture capitalist is hard to scale up.

This led to the notion of 'thin markets' for venture finance (Bertoni et al., 2015b; Mina et al., 2013; Nightingale et al., 2009). '*Thin markets occur when small numbers of high potential firms and small numbers of investors with the skills to help them grow find it difficult to find one another without incurring unacceptable transaction and/or search costs*' (Nightingale et al., 2009, p. 21). These markets cannot be characterised simply by pointing towards a demand problem (i.e., low quality of firms) or supply problem (i.e., not enough available funds). Instead the demand problem is that entrepreneurs are unable to credibly and reliably signal the quality of their projects, and the supply problem is that investors struggle to tailor finance to the specific and rapidly changing needs of the venture. Nightingale et al. (2009) assert that '*because thin markets make it difficult for the supply and demand for finance to match they reduce overall levels of investment*'. Standardization and repeated interaction between supply and demand characterising 'thick' markets would allow for the emergence of an ecosystem for early stage finance, but this is absent or dysfunctional in most countries. Scholars consequently diagnosed the 'valley of death' phenomenon in entrepreneurial finance as a coordination problem and a matching problem (Bertoni et al., 2015b; Mina et al., 2013; Nightingale et al., 2009).

In general, VC markets in Europe are less developed than their US counterpart, arguably because of more conservative institutional investors and strong bank-based financial systems in many European countries (Bertoni et al., 2015a; Hirsch-Kreinsen, 2011). Moreover, European markets are also nationally compartmentalised. In response to the thinner supply side, a much smaller share of early stage ventures in Europe actively seek VCs to finance firm growth (Bertoni et al., 2015b, 2011; Colombo and Grilli, 2010; Peneder, 2010). Nevertheless, venture capital investors in Europe claim that there is no shortage of funds for good ideas, thus the 'thin markets' problem is probably larger in Europe than it is in the United States (Nightingale et al., 2009). A smaller number of investors typically chases after a smaller pool of investment grade ventures. Hence, we may expect problems in the matching process to be most pronounced there.

2.2. Signalling and matching of investors and entrepreneurs

To analyse the matching process between entrepreneurs and investors we can build on a 2-stage matching process model (Bertoni et al., 2015b; Eckhardt et al., 2006; Sørensen, 2007). In the first stage, entrepreneurs decide to go on the market and look for venture capital (self-selection). In the second stage, investors screen the potential candidates, select the best (sorting) and decide whether to invest. The motivation for entrepreneurs and investors to search is different from the outset. Eckhardt et al. (2006) found that entrepreneurs base their decision to look for venture capital on competition, market growth and employment growth, while investors base their funding decisions on indicators of venture growth, such as degree of organising activities, marketing activities and the level of sales. This implies that there is ample room for strategic search behaviour and a need for verification. Both stages are therefore costly in terms of search effort being spent on both sides. A way for entrepreneurs and investors to reduce these search costs is to signal relevant information to potential counterparties in the market. For instance, investors will limit the sectors in which they are

[1] One would need to collect information on the ex-ante perceptions in pairs of investors and entrepreneurs that have attempted to match across the many compartments in the venture capital industry. Even if one would limit the study to a specific industry, it is practically impossible to collect such an ideal dataset. One would have to set up a cohort study in which all nascent entrepreneurs are followed and all active investors have been surveyed on their perceptions before some of the entrepreneurs approach them. Only then can one properly establish the effect of ex-ante perception misalignment on ex-post matching probabilities, controlling for the many things that also affect the latter.