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Selection and support strategies in venture capital financing: high-tech or low-tech, hands-off or hands-on?

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Abstract

The advantage of specialization in venture capital financing makes the presence of generalist investors perplexing. In order to understand their function, the authors investigate the knowledge resource bases of both generalist and specialist venture capital funds, the types of enterprises they select and their corresponding support strategies. Arguing that differences in strategy can be attributed to differences in knowledge, the authors hypothesize that specialists select high-tech projects; generalists, on the other hand, select low-tech projects. Specialists support 'hands-off'; generalist support 'hands-on'. These hypotheses are tested with a dataset of 103 venture capitalists in Austria, Germany and Switzerland. The empirical results from OLS-regressions show a close relationship between knowledge and selection as well as

support strategies. These results invite further research on differences in venture capitalists' strategies as they relate to differences in knowledge.

Keywords:

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specialist

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portfolio selection

hands-off-support

hands-on-support

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Notes

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Whether or not education is specific knowledge is discussed differently by V. Hayek ([1945](#): 521) and Jensen and Meckling ([1995](#): 7). V. Hayek argues that scientific knowledge can be bought from the market, while Jensen and Meckling claim that purchased knowledge such as advice or a book does not enable per se to decide oneself. In order for that to happen, knowledge has to be internalized and cannot be bought. Therefore, it is specific.

The venture capitalist Dotzler ([2002](#): 7) describes that type of knowledge as follows: 'An ideal background which would enable one to evaluate products and technologies would be technical training and work experience in an operating company in engineering, science, or clinical affairs. Someone who has worked in business development might also have the facility for evaluating companies in this technical dimension. Education in engineering, science, or medicine is helpful'.

Jensen and Meckling ([1995](#): 7) only refer to prices and quantities as examples of general knowledge. This classification seems too narrow. Most types of knowledge would be specific. However, we think that within a group (in our case the group of venture capitalists) a certain basic knowledge exists that is shared by all group members.

For a detailed description of a hands-off support, see the case study of Sweeting and Wong ([1997](#): 134-146).

Sweeting and Wong ([1997](#): 125) worked out this coherence very thoroughly: 'Our research supports the view, that over time, and by a process of feedback learning from post-investment performance monitoring, investees are selected that are compatible with this particular [hands-off, added by the authors] approach'.

See Manigart et al. ([2002](#)), Lockett et al. ([2002](#)) and Murray and Marriott ([1998](#)). It has to be noticed that the cited papers differentiated between early stage investments (= high tech) and later stage investments (= management buy out=low tech) but did not categorize the single project as high-tech or low-tech. However, the logic is straightforward: High-techs need to make high R&D expenditure and so have to raise external finance from an early stage. Low-techs have to establish first and can require venture capital if fast expansion calls for it.

Often, for example, the newly founded enterprises are spin-offs from universities where researchers worked for years on a business idea they want to bring to the market.

It is a common strategy of venture capitalists to replace founders by a professional management when the business idea has transformed into a tangible asset. See Neher ([1999](#)) and Hellmann and Puri ([2002](#)).

We checked whether all venture capitalist companies in the database of the three associations had an e-mail access or not, because we wanted to carry out an online survey (sending the survey via e-mail and getting it back again by e-mail). All

companies did have e-mail access. Two weeks after sending out the questionnaire, we reminded them by phone and e-mail to encourage venture capitalists who had not answered yet to do so. We offered them to send the questionnaire again by e-mail, by mail or by fax to increase the response rate. Only 10% of all responses did not return by e-mail. Offering the other two possibilities to send back the questionnaire, we could ensure that there was no response bias concerning the online survey technique (for more information on this kind of survey technique, see Isfan and Moog [2003](#)).

We did this, too, to check for a potential non-response bias (Abraham et al. [2002](#)). We can say that the structural and demographic data of our respondents do not differ with regard to the research population data, so there is no non-response bias concerning a special kind of group of venture capitalist, refusing to participate or refusing to fill in the survey.

We aggregated industries in seven fields, usually named by venture capitalist as typical investment fields, namely bio-technology, computer software, medicine, electrical engineering, computer hardware, communication technology and internet/e-commerce.

We are looking for this correlation because it seems idle to explain the relation of the degree of specialization with the amount of specific knowledge and vice versa.

The question remains why specialists can allocate more time on selecting given that they allocate nearly the same time on support. Asking the venture capitalists how they spend their time in attending the portfolio enterprises, we offered the categories selection time, support time and miscellaneous. Generalists just spend more time with miscellaneous.

We tested for potential endogeneity problems concerning the variables. No multi-collinearity could be found testing the partial correlations.

Additional information

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