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The Role of Angels in Technology SMEs: A Link to Venture Capital

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Abstract

The presence of angels among early-stage financiers of new technology-based firms should improve chances of eventual venture capital financing. Reasons to expect that firms with private investment would have easier access to venture capital are discussed. This study presents findings that support this expectation. A total of 57% of the firms that had received private investor financing had also received financing from institutional venture capitalists; only 10% of firms that had not received angel financing obtained venture capital. Angel investor financing was a significant explanatory variable (among others) of differences between venture capital recipients and firms that had not received venture capital. It would appear that angels help firms to become more ready for future stages of investment by, among other contributions, being closely involved with the firms in which they invest. They usually provide advice and networking opportunities. They also serve on Boards of Directors and Advisors, and provide hands-on assistance and business intelligence. Angels also fulfill an important accreditation role. Overall, this study provides empirical support for the expectation that involvement of angels can substantially increase the attractiveness of firms to institutional venture capitalists.

Keywords:

Business angels
venture capital
technology SMEs
non-financial contributions
angels' preferences
angel-founder relationships

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Notes

For example, Van Osnabrugge and Robinson (2000, p. 42) state, ‘a potentially complementary relationship exists between business angels and venture capitalists’. In addition, Freear and Wetzel (1990) documented complementarities between the informal and formal segments of the risk capital market in the US in the sense that angels tend to invest in relatively early stages of firm development while institutional venture capitalists tends to be focuses more at later stages.

See, among numerous others, DalCin et al. (1993), DeNoble (2001), Farrell (1998), Feeney et al. (1999); Freear and his colleagues (1990, 1994, 1995, 1997), Harrison and Mason (1990, 1991, 1992, 1993), Landstrom (1993), Lumme and her colleagues (1998), Mason and Harrison (1994, 1995a, 1995b, 1996), Sullivan and Miller (1996), Van Osnabrugge and Robinson (2000) and Wetzel and Freear (1988).

It is not clear that Farrell was comparing ‘apples with apples’ in that the firms that had received angel financing may have been, in the first place, better quality investments. In addition, Farrell did not control for sectoral or other potential determinants of success. Third, the time frame over which Farrell conducted her work was too short to provide definitive data even if she had controlled for other factors.

This database was developed in co-operation with the Ottawa Centre for Research and Innovation, and represents a comprehensive listing of businesses in the region's high-tech sector businesses in the Ottawa region.

The sampling frame provided not only contact data, but also rudimentary quantitative information on company size (number of local employees, total number of employees internationally) and on ISO certification. To assess the potential impact of non-response bias, this information was used in a logistic regression analysis to assess the degree (if any) of systematic differences between respondents and non-respondents. None of the independent variables were significant indicating that respondents and non-respondents did not systematically differ on these dimensions. The Cox and Snell R^2 was 0.003 and the Nagelkerke R^2 was 0.004.

There is some debate in the literature concerning the relationship between networking and success in entrepreneurial firms. The majority of the literature argues that weak tie networking is fundamental to success in entrepreneurial endeavors (Chell and Baines, 2000; Freel, 2000; George et al., 2001; Vanhaverbeke, 2001).

The measures of firm size (logarithm of number of employees) and the number of original founders were not statistically significant when added to the above logistic regression ($p > 0.10$), nor were there any noticeable changes in the coefficient estimates of the remaining variables. Accordingly, these variables are not reported in Table 3.

It must be emphasized that the angels interviewed in the group discussions were not necessarily the angels that provided financing to the Ottawa technology firms.

The strategy guiding the surveys and interviews described above employs both quantitative data based on questionnaires and qualitative data from interviews and focus groups. Qualitative analysis has often been used with the general aim of understanding complex social phenomena. It is important to recognize that the qualitative approach has the same degree of generalizability as a controlled experiment. Its goal is to expand and generalize theories and explanations and not simply to enumerate frequencies (a confirmatory approach or statistical generalization). The parallel is that of multiple experiments and involves a 'replication logic' where there is a 'literal replication' among similar CEOs and a 'theoretical replication' among different groups of CEOs with differences being interpreted in light of an existing or 'working' theory (Yin, 1994).

Fenn et al. (1998, p. 3) report that 'more than one-half of the sample (of high-tech firms in the United States that had gone public) received financing from angels'.