OPTIMIZATION OF VENTURE CAPITAL FINANCING: A STUDY OF 355 VENTURE CAPITAL BACKED COMPANIES (SUMMARY)

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SUMMARY

OPTIMIZATION OF VENTURE CAPITAL FINANCING: A STUDY OF 355 VENTURE CAPITAL BACKED COMPANIES

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Principal topic

Our research investigates the flows of venture capital to technology-based companies to see if there is an optimum rate of investment. Venture capital investing in young, technology based companies is a risky undertaking fraught with uncertainty. To reduce agency costs associated with the trying to cope with the moral hazard, venture capitalists like to make their investment in stages so as to limit their downside risk if the company falters. Sahlman (1990) reasoned that staged investing is the venture capitalist most powerful control mechanism. Neher (1992) posited stage financing as an instrument to implement the optimal investment path. Bergmann and Hege (1997) developed a theoretical model to analyze the optimal financing of venture investment based on the interaction of learning and moral hazard when the rate of investment flow controls the speed at which the company develops.

Method

Our data set comprised 355 U.S. technology companies that raised their first round of venture capital in the years 1993 through 1999 and subsequently went public or were sold to another company. For each company we had details of every round of venture capital. We had the sales revenue, net income, net worth, number of employees, age and experience of the founders, and market capitalization on a quarterly basis. We looked for relationships between performance and the rate of investment as measured by the amount invested and the time between rounds. We controlled for the age of the company when the first round of venture capital was invested, the date when the company received its first round, the date when it went public or was acquired, and its industry segment. We also controlled for the age and experience of the founders of the company.

Results and implications

Preliminary analysis shows that there may indeed be an optimal rate of investment. The simple relationship between market capitalization and number of stages is curvilinear and peaks between 2 and 3 round of venture capital. Market capitalization also correlated with the rate of investment of venture capital; the age of the company when the investment was harvested; the harvest mechanism (IPO or acquisition); and the year or the harvest.

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