

3 Review of Academic Literature

3.1 Introduction

This chapter presents a critical overview of theoretical and empirical literature on cash flow incentive mechanisms in venture capital contracting and identifies significant research gaps.

Existing academic literature on venture capital contracting proposes the *allocation of cash flow rights* (Grossman and Hart (1986), Schmidt (2003); Kaplan and Strömberg (2003), Gompers (1997)) and the *specification of control rights* (Chan et al. (1990), Hellmann (1998); Kaplan and Strömberg (2003), Lerner (1995)) as solution mechanisms to agency problems arising from the contractual relation between the venture capital company and its portfolio companies. This review, however, focuses on literature related to cash flow incentive properties of *augmented contracts* as defined by financing instruments and cash flow-related covenants. Control rights are neglected for the following reasons. The venture capitalist is given control rights independent of the financial structure through the use of covenants. This implies that the optimal allocation of control rights can be achieved separately from that of cash flow rights.⁷² In addition, direct control rights are difficult to model situation-specifically in theoretical analyses and difficult to measure on a deal-by-deal basis in empirical analyses.⁷³

The review is thus more focused than comparable existing literature reviews: Tykvová (2000) critically reviews theoretical literature analyzing the agency conflict resolution potential of typical financial instruments and covenants in venture capital contracts. She groups existing works as to their focus along the venture capital investment process, that is, on the selection, investment, and

⁷² See Gompers (1997), p. 20, Hellmann (1998), p. 70–71, Kaplan and Strömberg (2003), pp. 286, 294–295, and Schmidt and Wahrenburg (2003), p. 1142.

⁷³ For a review of the literature on the allocation of direct control rights, see Schertler (2000), pp. 13–17, and Neff (2003), pp. 114–125.

exit phases. Neff (2003) also presents the main findings from existing theoretical models but concentrates on (double) moral hazard models.⁷⁴ Denis (2003) only briefly summarizes the findings from theoretical and empirical literature on the allocation of cash flow and control rights. The empirical findings discussed refer primarily to the US market. Schertler (2000) presents a survey of the recent theoretical and empirical venture capital contracting literature on cash flow and control right allocations as solution mechanisms to agency problems. She compares theoretical findings with findings from empirical literature on mainly US contracting practices. While the review in this thesis is most closely related to Schertler (2000), it provides a more detailed discussion in two respects: It considers only literature on the allocation of cash flow rights and it discusses empirical studies with US, Canadian, European, and especially German samples. As a result of this wider geographical scope, it determines striking differences in contract design across the globe.

Finally, research gaps are identified from the summary of theoretical and empirical findings. They concentrate on the so-far-neglected notion of augmented contracting, that is, on the complementary interaction between financial instruments and cash flow-related covenants in the allocation of cash flow rights. A research question is then formulated for the theoretical analysis in Chapter 4 and hypotheses and expectations are framed for the empirical analysis in Chapter 5. Expectations are formulated on data analyzed by means of cluster analysis. Since cluster analysis is a structure-discovering and not a structure-testing method, hypotheses cannot be formulated and tested. Expectations are therefore introduced to serve a similar purpose.

The rest of the chapter is organized as follows. Section 3.2 reviews theoretical foundations, and Section 3.3 reviews empirical evidence. Both sections separately consider literature on financial instruments and on cash flow-related covenants,⁷⁵ identify research gaps, and formulate a research question, expectations, and testable hypotheses for the theoretical and empirical papers

⁷⁴ See Neff (2003), pp. 125–151.

⁷⁵ For an overview of the papers discussed in the literature review, see Table 3-1.