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Explaining returns on venture capital backed companies: Evidence from Belgium[☆]

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ABSTRACT

Using a unique database of 990 VC-backed Belgian firms, we study whether compatibility between corporate and environmental characteristics matters. We address two questions: (i) Does the interplay of company, industry, and product factors affect the expected returns of the VC-backed firms? (ii) Does the joint compatibility between these factors results in a non-linear increase in performance? Panel data analysis shows a significant influence of factor compatibility on returns. Quantile regression analysis indicates a non-linear relationship between the return and its determinants. Conjoint analysis identifies certain combinations of factors, which collapse into classifiable patterns described in the strategic management literature.

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1. Introduction

Venture capital and to some extent private equity (VC/PE) may be generically defined as a specific type of investment made either by professional investors or by business angels in non-quoted start-ups and small firms to capture the effects of their perceived long-term growth potential (Wood and Wright, 2009; Wright and Robbie, 1998). Typically, the performance of such investments is represented by their returns.

Despite the considerable effort in the analysis of VC/PE performance, the empirical evidence shown in academic studies is mixed. Some scholars suggest a superior performance of private equity (Cochrane, 2005; Gompers and Lerner, 1997; Kaplan and Schoar, 2005). Others advocate that private equity does not outperform public equity returns (Jones and Rhodes-Kropf, 2003; Moskowitz and Vissing-Jørgensen, 2002). As noted by Mason and Harrison (2002), the majority of these studies with some notable exceptions concentrate on returns of VC/PE portfolios. Meanwhile, returns on the venture capital backed-firms (VC-backed firms) remain relatively understudied.[2] It is true that VC/PE is interesting from a fund perspective. However, returns generated at the firm-specific level should be equally important. Not only do they affect possible exit types, they also have their implications on the fund's performance and the post-exit certification of the venture capitalist himself (Chanine et al., 2007; Giot and Schwienbacher, 2007). Therefore, the absence of an explicit attention to a portfolio firm's returns has led to several important gaps in the current research stream on the returns of venture capital.

First, little is known about the regular returns generated at the level of the investee. To some extent, this issue has been addressed in the research specific to the US or UK (Wright and Robbie, 1998). Second, these studies widely use traditional financial approaches, which consist of adjusting returns to the financial market benchmark (CAPM-based models) and sometimes to size (Fama-French based models). Therefore, they do not account for other possible determinants of returns. Finally, a growing academic stream of literature suggests that returns may have a non-linear sensitivity to their determinants (Landajo et al., 2008; Serrasqueiro et al., 2009).

In this work, we focus on regular realized returns on equity of Belgian VC-backed firms. Unlike in the US, the disclosure of standard financial statements is mandatory for all firms in Belgium. This guarantees homogeneity, reliability, and the absence of self-selectivity in the data. We draw our assumptions from the strategic management insights about the return drivers and their dynamic nature. Our paper addresses the question of whether a contingent approach to return determinants holds in the context of undiversified single-project firms – VC-backed firms. Specifically, we examine regularities in returns recorded by the VC-backed firms as a function of the internal (i.e., relevant to the company) and external (i.e., relevant to the competitive environment) factors in a Belgian setting. We, in turn, investigate two research questions: (i) Does the interplay of company, industry, and product factors affect the expected returns of the VC-backed firms as suggested by Agarwal and Bayus (2002) and Filson (2002)? (ii) Does the joint compatibility between these factors results in a non-linear increase in performance?

To answer these questions, we build and use the unique hand-picked database of returns on non-quoted VC-backed firms in Belgium over the period of 1998–2007. The main objective of this paper is to broaden previous research on the return-generating process of small single-project VC-backed firms.

Our key findings suggest a positive relationship between future returns and the industrial growth rate (environment) and product technology of the company (product). A negative relationship exists between future returns and the financial situation factor (company). The analysis of the conjoint influence of the strategic factors identifies the array of compatible and incompatible cases. These are explained partly by Pecking Order Theory/Capital Structure Theory and partly by the strategic management frameworks. The major result of our analysis is that top-performing portfolio companies should have had a much more favorable combination of external conditions and internal return determinants to generate superior returns and vice versa. By proceeding with a breakdown of the factors contingent on each other, we further support the hypothesis that the evolutionary combination between the

[2] One of the main reasons for this is the limited available data on the VC-backed firm returns.