



b
**UNIVERSITÄT
BERN**

Wirtschafts- und
Sozialwissenschaftliche Fakultät
Departement Betriebswirtschaftslehre
Institut für Finanzmanagement

Determinants of entrepreneurial activity and success

Inauguraldisseration zur Erlangung der Würde des Doctor rerum
oeconomicarum der Wirtschafts- und Sozialwissenschaftlichen Fakultät
der Universität Bern

Von Diego Liechti

Bern, November 2009

Introduction

Entrepreneurs are the driving force behind economic growth and technological progress. They create more jobs than large firms and they seem to be more innovative in terms of new products, processes, organizational forms, and expansion into new markets. Not surprisingly, entrepreneurship attracts attention by scholars, practitioners, and public policymakers. However, at least two fundamental questions about entrepreneurship still lack convincing answers: First, what motivates individuals to start their own business? And second, what drives entrepreneurial success? This dissertation addresses these two questions using 8,245 answers from a large scale survey of some 40,000 entrepreneurs and 23,000 employees.

This study consists of three papers. Although each paper can be read independently, they form an entity. The first paper reviews the extant academic literature on entrepreneurship and summarizes the theoretical and empirical evidence regarding the characteristics and the background of entrepreneurs in general and of the successful ones in particular. This sets the stage for the main part of the dissertation. In the second paper, I analyze what kind of people choose to become entrepreneurs. The third paper investigates to what extent entrepreneurial performance depends on luck. The remainder of this introduction discusses the three individual papers in more detail, particularly with regard to their practical implications.

In the first paper I review the literature on the determinants of entrepreneurial activity and success. The focus is on the main contributions and on the open research questions. Although there are other survey articles, this one is particular in that it simultaneously looks at both aspects of entrepreneurial activity –the participation decision and the subsequent performance. Interestingly, a factor that encourages entrepreneurship, e.g. a certain personality trait, could simultaneously jeopardize subsequent performance. Overall, I identify variables that affect an individual's decision to become an entrepreneur and entrepreneurial success. They include personal and psychological characteristics, factors of social environment, as well as institutional, political, and economic conditions. In addition, firm-specific characteristics such as team size also affect the performance of start-ups.

The survey shows that entrepreneurs are indeed special people. In many ways, they display stereotypical masculine characteristics: not only are they generally male, they are also less risk averse, more overconfident, and less agreeable than employees. Entrepreneurs also

have a different social environment: they normally worked in small and entrepreneurial companies, or have entrepreneurs among their relatives. Regarding the institutional, political, and economic conditions, there are several factors that increase entrepreneurial activity, such as taxes and regional business conditions. As for success, it seems to be driven mainly by firm-specific variables. An entrepreneur can improve his chances of success by raising sufficient money, securing the support of outside investors, planning its business properly, hiring professional advisors, and putting enough effort into running his firm. Overall, the findings of this paper should help public policy makers in promoting entrepreneurship, and support would-be entrepreneurs in their decisions on whether and how to pursue an entrepreneurial career.

While the first paper gives an introduction into the literature, the second paper asks how risk aversion and overconfidence affect an individual's decision to start an own business. I concentrate on these two characteristics because starting a business entails substantial financial and personal risks, including reputational risk. As a consequence, one would expect that only individuals with a low degree of risk aversion start a business or, alternatively, that they have to be overconfident and underestimate the risks they are taking. Although there are empirical studies analyzing these two characteristics, there is no consensus on the role of risk aversion and overconfidence in entrepreneurship. The reason is problematic measures for risk aversion and overconfidence. In addition, most studies rely on relatively small samples. To address these concerns, I rely on tools from the finance literature not yet used in entrepreneurship research. The paper uses a large dataset based on a survey conducted among Swiss entrepreneurs and employees during the winter of 2007. I find that entrepreneurs are both less risk averse and more overconfident. In addition, the evidence suggests that having wealthy friends increases the probability of becoming an entrepreneur—possibly because of the capital they contribute or the contacts that they allow.

The third paper investigates what fraction of firm performance depends on luck. It is coauthored with Claudio Loderer and Urs Peyer. Although there is an extensive literature on entrepreneurial success factors, no study has tried to measure the importance of luck in entrepreneurship. The paper is based on the same survey as the second paper. The first challenge is to define and measure luck. Consistent with the finance literature, we first define luck as unpredictable performance. Using different performance measures, we show that

luck explains about 5 to 8% of performance. Because of potential measurement error, these numbers should be interpreted as a lower bound for the importance of luck. To put an upper bound, we ask entrepreneurs directly to assess the importance of various drivers of performance, including luck. Among these factors, luck turns out clearly to be the least important one. Moreover, given that the importance of the other factors is roughly the same, luck can at best explain only one sixth (or 17%) of the variation in performance.

We run a battery of robustness tests concerning our conclusions. For example, the entrepreneurs of successful firms could be blinded by their achievement and assign luck a lesser role than it deserves. Overconfident entrepreneurs might tend to believe the same. Experienced or educated entrepreneurs might also be skeptical. In contrast, risk averse entrepreneurs might believe the opposite. The evidence does not support any of these conjectures. Entrepreneurs seem to have well-balanced convictions. Interestingly, employees and managers have almost exactly the same beliefs. Hence, there is no reason to reject 17% as an upper bound measure of the importance of luck.

This evidence shows that the success of entrepreneurs seems to be more a reflection of dedication, skills, and personality than of pure luck. Are entrepreneurs masters of their destinies or does fate decide? The answer seems to be the former.

As entrepreneurship is affected by a very broad range of factors, most of them unobservable, this study does not offer the complete answer to the questions why people start their own company and what drives their subsequent success. Still, the results contribute to a better understanding of what shapes an individual's decision to become an entrepreneur and what factors are important for success. The insights of this dissertation should not only help public policy makers foster entrepreneurship but also have useful implications for entrepreneurs and for those aspiring to become one.

The dissertation proceeds in three papers:

- Paper I: Determinants of entrepreneurial activity and success: A survey of the literature;
- Paper II: Risk aversion and overconfidence revisited: What makes an entrepreneur?
- Paper III: The importance for luck for entrepreneurial success?