1 Introduction: successful entrepreneurship

That the existence of a problem of knowledge depends on the future being different from the past, while the possibility of the solution of the problem depends on the future being like the past. (Knight [1921] 1971, p. 311)

Relevance
In this book I confront economic theory about entrepreneurship with the determinants of successful entrepreneurship that I find in empirical practice. Before presenting the results of my investigation of these determinants, the relevance and importance of the subject of entrepreneurship in general, and the determinants of successful entrepreneurship in particular are discussed.

Today, most economists and other practitioners of behavioural sciences as well as politicians will readily admit the importance of the entrepreneur's role in society. Entrepreneurs are held responsible for economic development, by introducing and implementing innovative ideas. These ideas include product innovation, process innovation, market innovation and organizational innovations. The (successful) implementation, initiated by entrepreneurs, of these new ideas gives rise to the satisfaction of (new) consumer wants and to the creation of firms. The created firms engender economic growth and supply jobs for the working population. Hence, by stimulating both a product and a labour market, entrepreneurs can be given credit for a considerable contribution to the economy. These are the benefits pertaining to successful entrepreneurship.

Unfortunately, not all entrepreneurs are successful. Too many of them fail: they do not arrive at the stage of employing personnel; they are not in a position to turn their business into a sufficiently profitable organization; their ventures fail to survive the first period at all; or even worse, they go bankrupt. These are the private, psychological and most importantly, social costs pertaining to unsuccessful entrepreneurship.

Instruments are needed to obtain fiscal, social, informational and/or educational policy measures to improve efficiency in the market for entrepreneurs. Market efficiency is improved whenever the number of successful start-ups increases and/or the number of unsuccessful start-ups decreases.

Determinants of entrepreneurial start-up and performance can serve as these instruments. By combining these determinants, one gains insight into current inefficiencies. By means of these instruments, potentially unsuccessful start-ups can be prevented or, even better, turned (in time) into...
successful ones. Moreover, potentially successful entrepreneurs who do not start because they have neither the willingness nor the opportunity to do so, can be motivated and/or offered this opportunity.

The instruments could find application not only among governmental policymakers. Bankers and other capital lenders could also use them for their own and the entrepreneur’s benefit.

**Objective**

The objective of this book is to answer the following research questions:

- Which factors contribute to the explanation of the observation that some individuals have the opportunity and willingness to become an entrepreneur and others do not?
- Which factors contribute to the explanation of the performance of entrepreneurs? What is the measured impact of the most important factors influencing venture performance?

The answers to these questions imply an answer to the underlying composite question: ‘What are the determinants of successful entrepreneurship?’ The empirical analyses underlying the answers to these questions are rooted in (historical) economic theory. They pertain to a sample of young male US citizens and to various samples of Dutch individuals.

The potential determinants of successful entrepreneurship are derived from theory and existing empirical evidence. They include human capital variables, financial variables, risk attitude, psychological variables, macroeconomic variables and (parental) background variables.

**Positioning**

Knowing that other behavioural disciplines, such as social psychology, are also concerned with entrepreneurship, it would be naive not to acknowledge their fruitful scientific results in the analysis. I shall include some of the common results, but at the same time, I do not want to be guilty of conceit or imply that I, as an economist, am in a position to address the psychological approaches to entrepreneurship competently. Therefore, this book can be positioned as an economic one within the field of social sciences.

Within the field of economics research, this book can be positioned as microeconomic as opposed to macroeconomic. The central unit is the individual entrepreneur, who is likened to other entrepreneurs. I do not compare the proportion of entrepreneurs in a specific country and year to the proportion in other countries and/or years. However, indicators of the macroeconomic environment are included as explanatory factors for individual behaviour.
Within the field of microeconomics, the approach is labour market rather than business oriented: the focus is on the entrepreneur’s occupational choice and success, rather than on the enterprise. None the less, enterprise-related variables are included in the research as factors that potentially affect entrepreneurial performance.

A definition of successful entrepreneurship

Definitions of an entrepreneur

Within the course of the empirical work in this book, the following definitions of an entrepreneur are used:

- An entrepreneur is someone who indicates either that (s)he has started a business venture alone or with a group or that (s)he has acquired a (family) business, alone or with a group.
- An entrepreneur is someone who acknowledges that s(he) is being the sole owner of a corporation or is self-employed. Self-employed people do not derive their main income from a wage or a salary, but by exercising their profession or business on their own account and at their own risk.¹

The selection of these two definitions is motivated by their availability in samples that allow empirical analyses in general and by their availability in the Dutch and American samples used for this study in particular. Moreover, these definitions allow a comparison with other empirical person-oriented studies of entrepreneurship. Empirical definitions of entrepreneurship are, in general, fairly comparable, though their meanings are much more prosaic than those in most (untestable) theories that refer to the innovative free mind of the resourceful spiritual entrepreneur. Indeed, most researchers empirically define entrepreneurs as self-employed (van der Sluis et al., 2003).

It is readily admitted that these (as well as other) definitions of an entrepreneur are not perfect. In reality, the difference between an entrepreneur and a non-entrepreneur is not clear. There is rather a continuum of labour market positions stretching from ‘totally non-entrepreneurial’ to ‘heavily entrepreneurial’. Therefore, it is difficult to define a cut-off point on this continuum such that an individual is considered an entrepreneur on one side of the point and not on the other. The concept itself is not defined so uniformly and one-dimensionally.

By utilizing the above definitions, the problem of a researcher having to decide whether an individual’s labour market position is sufficiently
entrepreneurial and labelling him or her as an ‘entrepreneur’ is circumvented. Respondents themselves indicate whether they are entrepreneurs. In this respect, the definitions are subjective ones. The possibility is acknowledged that of two individuals, who have identical labour market positions, one becomes an entrepreneur and the other does not.

There are many more rather theoretical definitions of an entrepreneur which will be reviewed in due course (see Chapter 2). Finally, in order to simplify the reading of this book, entrepreneurs are always referred to as males. At present as well as in the past, most entrepreneurs have been male.

Definitions of success

There is little alignment among researchers on the appropriate performance measure of success in entrepreneurship. At least ten different measures are used. From a recent meta-analysis (van der Sluis et al., 2004a) it was deduced that 47 per cent of studies analysing performance focus on self-employment earnings – annual, monthly or hourly – which is then entered in linear or logarithmic form. Another 16 per cent look at inputs (typically employment or personnel) as a measure of size or growth. Fifteen per cent examine exit or survival, which can easily be calculated from each other. Fourteen per cent of studies found other performance measures to analyse, such as self-employment income as a share of total household income, a private benefit–cost ratio, the growth rate of profits, a business diversification index and so forth. In this book, I shall analyse common performance measures that are used in the literature.

The indicators of success or performance measures that are utilized in Parts III and IV are as follows:

- The more personnel an entrepreneur has under his control, the more successful he is. This definition is utilized in Chapter 5.
- The longer an entrepreneur survives as such, the more successful he is. This definition is used in Chapter 8. More specifically, the longer an entrepreneur survives before exiting the entrepreneurial state involuntarily, the more successful he is. This definition is utilized in Chapter 6.
- The higher the profit of the entrepreneur’s firm, the more successful the entrepreneur is. This definition is utilized in Chapter 8.
- The higher self-employment earnings are, the more successful the entrepreneur is. This definition is used in Chapters 7 and 9.

Outline of the book

There are few issues in labour market economics that have already been the subject of so much research for such a long time as is the case with the
current research subject. Chapter 2 reviews some important contributions to the historical knowledge base of the theory of entrepreneurship. No attempt has been made to survey this knowledge base completely. The idea is to answer some research questions related to the subject of the book in order to provide the reader with an understanding of the development of the theory of (successful) entrepreneurship. The seminal contributions selected are reviewed chronologically and then compared. Finally, an overview is given of the components of the diverging contributions that are empirically testable. The tests themselves are performed and commented on in the empirical chapters that follow in Parts II–IV.

Part II discusses empirical studies of entrepreneurship selection, or venture creation, whereas Parts III and IV discuss factors affecting entrepreneurial success, or venture performance.

Chapter 3 (Part II) develops an empirical model within a dynamic framework to find the determinants of the decision of labour force participants to start up as an entrepreneur. The model separates ‘opportunity’ and ‘willingness’ as unobserved factors in the decision to start. In contrast with recent contributions, the distinction between entrepreneurial opportunity and willingness is quite prominent in the classical literature (see Chapter 2).

It is reasoned that only those labour force participants start up as entrepreneurs who are both willing and have enough opportunity to do so. If either or both of these concepts do not exceed their respective threshold values, an individual is observed to remain a non-entrepreneur.

The estimation results of the model that identifies opportunity and willingness based on partial observability of either construct pertain to young white male Americans. They suggest that the majority of young Americans are willing to switch to entrepreneurship but that opportunity is a major constraint, especially through finance. Entrepreneurial ability aspects that can compensate for a lack of capital are scarce.

Entrepreneurship is historically associated with risk bearing. Consequently, risk attitude is widely believed to affect the selection of individuals into entrepreneurial positions. This belief, however, has not yet been put to an empirical test. The objective of Chapter 4 is to provide such a test on a unique sample of Dutch labour force participants. One of the unique aspects of this sample is the availability of a measure of an individual’s risk attitude.

The Dutch data support the supposedly negative effect of risk aversion on entrepreneurship selection or venture creation. However, the research does not provide a definitive conclusion on the causality of the relationship between risk attitude and entrepreneurship selection because the empirical measure of risk attitude has some drawbacks.
No matter how important it is to understand the issues and determinants of venture creation, the inevitable next question concerns venture performance, the topic of Parts III and IV. Business development is a stressful and highly demanding type of activity, which ends in failure and deception in far too many cases (20 per cent of the ventures do not survive their first year; see Fritsch et al., 2004). As indicated in Audretsch and Keilbach (2003), the social costs of business failure are immense, whereas the social benefits of a successful enterprise are enormous in terms of innovation, growth and competition. Hence, devising policy measures stimulating the decrease of barriers to entry for potentially successful starters and the increase of useful support to those starters can have a large impact on the economic development of countries. This is why many countries and international organizations like the European Commission, the International Monetary Fund (IMF) and the World Bank put large amounts of energy into designing and implementing such measures.

The effective design of policy measures to improve successful entrepreneurship requires quantitative knowledge about the determinants of venture performance. It will therefore be based on output from research into such determinants. Part III describes the state of the art of such research and reviews the resulting empirical evidence. It starts with Chapter 5, which provides the link with the earlier chapters.

Chapter 5 develops a theoretical model that explains business formation and labour demand simultaneously. In this manner, the decision to start up as an entrepreneur (Part II) and entrepreneurial (socioeconomic) success (Part III) are analysed within one framework. The explanatory factors are risk attitude and entrepreneurial ability. Whether an active labour force participant becomes an entrepreneur or an employee depends on the utilities associated with each activity. These in turn depend on individual risk attitude, since entrepreneurship is a risky business, and on entrepreneurial talent. Expected entrepreneurial talent determines the potential size of one’s business. The actual size of an entrepreneur’s firm is dependent on the realized level of his entrepreneurial talent. Entrepreneurial talent is a function of observable characteristics. A measure of relative risk aversion is also observed.

The resulting equilibrium model is translated into an empirical structural model which explains whether one starts a business, and if a business is started how many people one employs. The estimation results pertain to a sample of Dutch individuals. It turns out (again) that more risk-averse individuals are significantly less inclined to become an entrepreneur. Basically, entrepreneurial ability depends on the same set of human capital characteristics that also affects the earnings of an employed individual.

The objective of Chapter 6 is to find the determinants of entrepreneur-
ial success for the group of individuals identified in Chapter 3 as having sufficient willingness and opportunity to start up as an entrepreneur. The chapter quantifies individual-specific determinants of entrepreneurship duration. I distinguish between two exit reasons (or destinations). The (statistically) distinct exit destinations are compulsory and voluntary exits from entrepreneurship. Compulsory exits are seen as indicating a lack of business success.

The empirical results with respect to compulsory exits, that is, business failures, are related to the historical theories of entrepreneurship that are reviewed in Chapter 2. The estimated effects of regressors on hazards differ considerably from their effects on the start-up probability. Hazards are affected by human capital variables but not by one’s financial position at the start. General business conditions matter.

Part IV focuses on the two main determinants of venture performance: human and financial capital. The motivation for this focus is fourfold. First, broad research shows that these two factors, human and financial capital, are the main drivers of venture performance (and also of venture development) (see Le, 1999; van Praag, 2003). In general, they are more influential for performance than, for instance, ethnicity, family background, social capital, or the business strategy and organization of the small business starter. Second, the relationship between performance and many of the aforementioned potential determinants, such as business strategy and social capital, is, in turn, determined by the human and financial capital of the entrepreneur. Third, policy interventions relating to these determinants are most straightforward. Finally, the state of the art of the research into these factors is most developed, though certainly not without criticism.

Chapter 7 examines the effect of schooling on entrepreneurship earnings. It compares the rate of return to schooling for entrepreneurs with that for employees. The robust finding is that entrepreneurs benefit more than employees from an additional year of schooling, provided that the effect has been measured such that one copes with possible problems of endogeneity and unobserved heterogeneity.

Chapter 8 relates entrepreneurial profits and duration to capital constraints at the time of inception of the business. It shows that capital constraints do hinder entrepreneurs in their performance. The result is robust against various alternative explanations. Entrepreneurs who have been hindered by capital constraints at their start-up phase (but have nevertheless started!) are unable to follow an optimal scheme of investments in terms of amounts and timing of investment. Therefore, they have more difficulty surviving and their business is less profitable.

Chapter 9 integrates Chapters 7 and 8 into one analysis. It measures (on yet another sample) the causal effect of schooling and capital constraints
on entrepreneurs’ earnings. At the same time, the model incorporates and measures to what extent education might alleviate capital constraints. Again the outcomes show that, when properly measured, the returns to education are high, especially when the indirect effect of education on performance, via its effect on capital constraints, is added to the direct effect. The indirect effect is substantial because education affects capital constraints considerably and significantly, whereas capital constraints have a negative and significant effect on performance.

Finally, Chapter 10 summarizes the main findings and conclusions of the preceding chapters. Policy recommendations are also discussed in this last chapter.

Notes
1. This is the definition that de Wit uses for self-employed persons and entrepreneurs alike. He motivates why this definition of self-employment and entrepreneurship is appropriate (de Wit, 1993, pp. 2–3).
2. Earnings are of course expressed in the local currency, and they may reflect before- or after-tax values – although it is more likely that business and sales taxes have been accounted for as part of the cost of doing business.
3. A voluntary exit does not necessarily mean a lack of success.