1. Introduction

THANK YOU! for opening this book and reading these words. Although the fact that you are doing this could reflect that you are engaging in the dying art of random browsing I will take it as indication that either you have an interest in the topic, some confidence in me, or both. That's inspiring!

This also means you are probably well aware – or building up an emerging realization – that as behavioural and social realities are complex, researching them is challenging. I will not dwell here on exactly what 'entrepreneurship' is – you will get enough of that in Chapter 2 – but as it is largely a behavioural and social phenomenon, its study is subject to these challenges. Due to a number of somewhat unique characteristics of the entrepreneurship phenomenon the research challenges in entrepreneurship are arguably even greater than for most other social and behavioural phenomena. First, entrepreneurship is an emerging, process phenomenon. Second, it is a highly heterogeneous phenomenon. Third, it concerns multiple levels of analysis. As I will elaborate in the various chapters of this book these qualities of entrepreneurship have consequences for sampling and operationalization as well as for analysis and interpretation. As I see it, challenges like these can be great intellectual fun. Hopefully you agree and will not let them make you abandon your interest in researching this important phenomenon. I hope sharing my insights, experiences and mistakes over 20 years of entrepreneurship study help you have more fun, more quickly. At least, that is my purpose in writing this book.

In this book I have collected what I consider to be some of my more worthwhile musings on the topic of entrepreneurship as a research challenge. The book includes both original (chapters 1, 4, and 7 and the section introductions) and previously published works (chapters 2, 3, 5, 6, and 8). The latter are all of a reasonably recent date – 2002 through 2006 – and thus hopefully not too hard-hit by obsolescence. While all chapters were originally written as stand-alone products they have a strong unifying theme and jointly they present a more comprehensive argument. I hope pulling them together in one place will yield some economies of scope.

As my writing in this area has itself been an emerging, process phenomenon I have not been very systematic about where and how I have previously communicated my thoughts. The chapters in this book have as a

result been scattered over a range of outlets, many of which most entrepreneurship researchers may never look for or even happen to stumble over. Apart from making for a more comprehensive, unified argument, collecting the works in one volume also serves the purpose of facilitating access to the individual chapters. In order to avoid having to split the humongous royalties that this title is sure to bring in from sales in airport bookstores I have confined the collection to sole-authored works. I have therefore excluded some co-authored manuscripts of similar character. Judging by citation statistics these have reached reasonable recognition through their original publication source (for example, Davidsson & Wiklund, 2000, 2001).

The book consists of three parts. The history and contents of each chapter will be described in a short introduction to the respective main section of the book. Part I, 'Defining and describing the entrepreneurship phenomenon', consists of two chapters that are mainly conceptual in character. These conceptual ideas about what entrepreneurship and entrepreneurship research are have implications for the main topic of Part II, 'Research design issues'. This latter part is more method-technical and focused inward on research practice. The issues discussed in Part II in turn have implications for the topic of Part III, 'Interpreting and spreading the results'. The meaning and practical implications of the findings are contingent on how 'true' and generalizable they are, which follows from the quality of the design and execution of the research.

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I will structure the remainder of this introductory chapter around the previously mentioned particularities of the entrepreneurship phenomenon, that is, its emerging, process character, its heterogeneity, and its multi-level nature. I chose this organizing principle because when re-reading the set of manuscripts for this volume it became apparent to me that they mostly revolved around these themes. The emerging, process character of entrepreneurship influences sampling in interesting ways. Because of their emerging nature the entities to be studied are hard to find. Individuals in the process of starting a new firm are not listed in any pre-existing sampling frame, and neither are the embryonic ventures they are working on. In addition, it is not an unambiguous task to determine exactly what is an eligible case and what cases are under- or overqualified for inclusion. The change that occurs in the process further complicates the picture. Upon re-contact, the same informant may be working on quite a different start-up, or the original start-up may still be in progress but now without the original informant on the team. Is this still a valid member of the sample?

On a more aggregate level, emerging industries or populations are likewise hard to identify. For one thing, they have likely not yet been assigned the unique industry classification that would normally direct our sampling. Moreover, in the messy formative stage different organizational forms and bundles of product-market offerings might be tried, making it very difficult to determine whether an entity belongs in the studied category or not. The sampling challenges arising from the emerging, process nature of entrepreneurship are dealt with in Chapter 2 and further elaborated in Chapter 5. Aspects of this challenge are brought up in some of the other chapters as well.

Beyond sampling, the emerging, process nature of the entrepreneurship phenomenon has implications for operationalization. Process phenomena call for longitudinal study and multi-wave data collection, and longitudinal studies should ideally employ repeat measurement of exactly the same variables over time. However, when the studied phenomenon is emerging there is a whole range of variables that simply cannot be assessed at every stage. This challenge extends beyond the obvious cases of non-existence. For example, in our analysis of growth aspirations among nascent entrepreneurs we noted that the earlier in the process that we had captured a case the likelier it was that we got an internal non-response on that question (Delmar & Davidsson, 1999). Many business founders, it would seem, simply had not made their minds up as regards what it was that they were trying to create. Chapters 2 and 6 are the main locations for further discussion of operationalization challenges arising from emergence and process.

The analysis and interpretation are also influenced by the fact that what we try to study is an emerging, process phenomenon. Obviously, some mastery of longitudinal techniques (such as event history analysis or longitudinal growth modelling) that are not part of the standard package included in doctoral training may have to be acquired in order to make optimal use of the data. Further, because of the focus on early stages of development, conventional outcome variables such as levels and/or growth of sales, employment and profit may not be suitable as dependent variables. However, if these cannot be used it is unclear what we can put in their stead in order to assess the success – or lack thereof – in the venturing process. This theme, too, is introduced in Chapter 2. Chapters 5 and 7 offer more elaborate treatments.

The heterogeneity of entrepreneurial phenomena likewise has effects on sampling, operationalization, and analysis/interpretation. One of the sampling challenges in studies of nascent entrepreneurs or emerging ventures is that it is almost impossible to pre-stratify the sample. An attempt to sample randomly, as in the Panel Study of Entrepreneurial Dynamics (PSED) (Gartner et al., 2004) and similar studies, will yield a sample that

is heterogeneous along almost every dimension – resource endowments, including human capital in the form of knowledge and experience; motivations for engaging in a start-up; the novelty and scope of the venture idea; the size of the market opportunity it responds to; the process by which the start-up is being realized; and how far into that process the case has reached when first captured. In addition, the sample will be numerically dominated by relatively mundane, imitative ventures (Aldrich, 1999; Samuelsson, 2004). While it is crucially important to map out and learn about this complex reality, a random sample may not be the ideal material to work with in order to reach strong conclusions regarding specific theoretically-derived propositions. Empirical patterns may not be so general that they apply to all kinds of ventures and even if they do there may be unmeasured, confounding factors that conceal that fact when we include too much heterogeneity in our samples.

Heterogeneity also creates operationalization challenges. There are great risks that the measures used do not apply equally well for all types of ventures; or in order for them to apply universally we would have to dilute the measures so they become rather imprecise and gauge the phenomenon equally badly rather than equally well across the heterogeneous cases. For example, how can we validly assess ventures' resource endowments, or their degree of novelty, in ways that are equally valid and comparable across start-ups in retailing, business services, and bio-tech manufacturing? A homogeneous sample – if at all possible to obtain – allows the use of tailor-made operationalizations that can potentially capture the theoretical phenomenon under study in a much better way. However, this increase in validity may come at a high price in terms of generalizability. The study by Cliff et al. (2006) provides interesting illustrations of both sides of this problem.

If heterogeneity cannot be sufficiently reduced in sampling it has to be dealt with in analysis and interpretation. Inclusion of control variables is necessary but is not enough in itself. Separate analysis of more homogeneous subgroups as well as various approaches to explicitly modelling heterogeneity (such as the examination of interaction effects) may be needed. Heterogeneity and its effect is the theme of Chapter 4. In a less explicit way it is also the foundation of Chapter 3, and the theme recurs in almost every other chapter.

Sampling, operationalization and analysis/interpretation are also affected by the multi-level nature of entrepreneurship. In micro-level studies of entrepreneurship, what should be the sampling units and what should be the units of analysis? They are not necessarily the same. The PSED and similar studies sample households or individuals, but the unit of analysis could be the individual, the household, the team or the venture. Early in the

PSED work there was some confusion regarding what level of study it was, arguably leading to some inconsistencies of operationalization. Framed in a more positive manner the study has proven useful for analysis on individual, venture, and team levels (see, for example, Carter et al., 2003; Ruef et al., 2003; Samuelsson, 2004). As noted above, the levels problem makes itself acutely apparent when upon re-contact either the nature of the venture or the composition of the team behind it has undergone dramatic change. In the Swedish PSED we handled this problem by organizing the data set on two levels (individual and venture) with partly differential cases treated as continuing over time.

On a more aggregate level the sampling problem can present itself in slightly different ways. One example from my own research is from the study *Culture and Entrepreneurship* (Davidsson, 1995a; Davidsson & Wiklund, 1997). When I wanted to add regional 'mentality' variables to what was available in statistical databases I sampled individuals from the regions and used their average responses as measures for the regions. But who represents the regional culture? All who live there or only those who grew up there? All age groups equally? Should those already in entrepreneurship be included or excluded when assessing the degree of entrepreneurial mentality? Chapter 6 contains the most comprehensive discussion of sampling issues related to level, but the topic appears in several other chapters as well.

The sampling problem just described can also be regarded as a problem of operationalization on the regional level. Apart from the measures being influenced by who is included to represent the region there are also choices to make as regards how the questions are framed. In *Culture and Entrepreneurship* most of the items referred to the respondents themselves, following the logic that the 'mentality' of the region is the aggregate of the attitudes and beliefs of its citizens. This had the advantage of making the data suitable for individual level analysis, too (Davidsson, 1995b). However, I have since learnt that the preference for culture studies is to aggregate individuals' perceptions of their environment rather than their self-perceptions (M. Frese, personal communication).

On the micro-level, the high frequency of team-based start-ups highlights the desirability of using multiple respondents when the intended level of analysis is the team or the venture rather than the individual. In the ongoing 'Comprehensive Australian study of entrepreneurial emergence' (CAUSEE) we do not go quite that far (the data collection is expensive and complex enough as it is . . .) but we have made a decision that the venture should be the main level of analysis for the study. Consequently, the respondent is regarded as an informant on behalf of the venture (rather than constituting 'the case') and where applicable the resources and so on

provided by other team members are assessed alongside those provided by the respondent. Again, Chapter 6 is the main chapter to be mentioned but not the sole source of further discussion.

As regards analysis and interpretation it can be worth reiterating that a singular focus on the firm level can be rather myopic. This is especially true in the current environment of increasing takeover of entrepreneurship study by strategy scholars (Baker & Pollock, 2007). What entrepreneurial action appears productive, unproductive or destructive (Baumol, 1990) may be vastly different depending on what level of analysis is applied. Similarly, a largely unsuccessful entrepreneur may occasionally be involved in a successful venture while a venture's dissolution is not necessarily associated with misfortune of the entrepreneur(s) involved – they may simply have moved on to some better prospect in employment or in another venture. Further, the multi-level nature of the phenomenon may call for application of software like HLM or MLWin, just as entrepreneurship's process character calls for longitudinal analysis models. The issue of levels related to analysis and interpretation are elaborated in chapters 2 and 7.

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The previously published manuscripts in this volume appear as when first published, less correction of pure errors, updating of 'forthcoming' references, and the like. The previously unpublished chapters (4 and 7) are, well, previously unpublished, and consequently I have felt free to make whatever changes I saw fit relative to versions previously presented at conferences. As I have published in both UK- and US-based outlets and now live in Australia the formal specific branch of English used (spelling-wise and so on) is somewhat variable across chapters but hopefully reasonably consistent within them. Because I am born Swedish I cannot exclude the possibility that the actual style may sometimes look foreign to all native English speakers irrespective of specific origin. While this is a deficiency for which I apologize I feel confident my short-of-perfect English is more intelligible for most than a masterfully crafted text in my mother tongue would be. So please bear with me!

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