Experiments on Entrepreneurial Decision Making: A Different Lens Through Which to Look at Entrepreneurship

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Abstract

In this paper, we propose that researchers might analyze key questions in entrepreneurship as problems of decision making. We believe that this allows for new insights. Experiments are especially suited to empirically test hypotheses derived within such a framework. In this paper, we thus introduce the decision-making perspective as well as general characteristics of the experimental method. We also discuss existing experimental studies in entrepreneurship with respect to the use of a decision-making perspective and specifics of their experimental designs. Finally, we present "research cases" that demonstrate the shift in perspective that occurs when common questions in entrepreneurship are analyzed through the lens of decision making. We conclude that entrepreneurial decision making (EDM) bears the potential of a scientific paradigm. This paper is intended to stimulate theory development to establish such a paradigm and (experimental) research within the perspective of EDM.

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1

Introduction

A number of authors in entrepreneurship have used the term entrepreneurial decision making (EDM) to label their contributions (e.g., Busenitz and Barney (1997), Lévesque and MacCrimmon (1997), Forlani and Mullins (2000), Simon and Houghton (2002), Mullins and Forlani (2005), Lévesque and Schade (2005), Gustafsson (2006)). By the use of this term, each author may have had something slightly different in mind, but the general idea always traces back to decision theory: sometimes of the kind more rooted in economics and sometimes of the kind more rooted in psychology. Despite subtle differences, the joint perspective of economic and psychological approaches is to look at individuals' choices among alternatives as the object of investigation (Schade and Koellinger, 2007). For a psychologist a decision is a rich phenomenon involving all kinds of cognitive, emotional, motivational, judgmental, perceptual, personal, and environmental factors (Kunreuther and Krantz, 2007). For a mainstream economist, factors

¹ Common distinctions are made between normative decision theory and descriptive decision theory (the latter having much in common with cognitive psychology) as well as normative and descriptive game theory (the latter having much in common with social psychology). Whereas the two normative theories try to answer the question how one should behave

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such as emotions and perceptions are typically not dealt with in detail (or not at all).

Investigating entrepreneurial decision making might imply having a specific perspective on entrepreneurship. It implies the analysis of key questions in entrepreneurship research as decision making of entrepreneurs and of other individuals in entrepreneurial contexts. This is different from general research on decision making because it looks at specific individuals in a specific context. Entrepreneurs have been demonstrated already to decide differently than others (see, Busenitz and Barney (1997) and Burmeister and Schade (2007)), and there are contexts specific to entrepreneurship. This makes it necessary to study entrepreneurship as a separate management discipline. According to Baron (1998), the behavior of entrepreneurs differs from that of other individuals because entrepreneurs either self-select into this career path or are shaped by the specifics of the environment: uncertainty, high-stakes decisions, short windows of opportunity, etc.

Why is the investigation of decision making a specific "lens"? With the word lens we refer to the fact that every individual and specifically every researcher has an idiosyncratic way of looking at the same research object. The idiosyncratic perspective is formed by the researcher's original training, knowledge, and his or her openness for different perspectives. Let us demonstrate the effect of applying the EDM lens by looking at "classic" questions in entrepreneurship. We use those questions that were covered in the first issue of the *Journal of Business Venturing* in 1985 (see also Alvarez (2007)) because they are still reflective of a vast majority of research endeavors in entrepreneurship. The first question, "who is the entrepreneur?" has been analyzed earlier in the so-called trait approach and has also been dealt with in cognitive psychology.

What is the specific EDM take on this question? An example is the study of Burmeister and Schade (2007). In this research, entrepreneurs, bankers, and students are confronted with exactly the same decision situations. However, entrepreneurs appear to exhibit a so-called status

⁽if he or she intends to be rational — how difficult a convincing definition of rationality might be!), the descriptive parts deal with the question how people actually behave.

quo bias to a lesser extent in their decisions than bankers. Therefore, the authors can safely conjecture that entrepreneurs make decisions differently than other individuals. Unlike psychological questionnaires on individual characteristics that have been used in the trait approach,² these differences are established somewhat closer to the actual "playing ground," than everyday decisions that individuals make.

The second question, "how do entrepreneurs raise capital?" can be dealt with as a decision process too; however, not only the entrepreneurs but also the venture capitalists (VCs), bankers, etc. are relevant decision makers, here. In contrast to the first question, a decision-making perspective has been adopted earlier for this question, e.g., in conjoint experiments.

With the third question, "how do entrepreneurs manage rapid growth?" literature mostly adopted a fairly aggregated (i.e., organization level) perspective, whereas a decision-making perspective would imply analyzing these problems more directly, e.g., by having entrepreneurs making decisions on growth related investments, organizational changes, etc.

"What impact do networks have on entrepreneurial phenomena?" is the fourth question. Here a sociological perspective is adopted in most of the literature. Namely, the structure of networks between organizations is the level of analysis. A decision-making perspective would focus on the decision of an entrepreneur whether or not to contact a specific person and whether to maintain this relationship or simply on how much to invest into networking rather than problem-solving activities.

The fifth question is "what role does corporate entrepreneurship have?" Different methods are employed that are more or less focused on individuals or higher units of aggregation. Sometimes, the focus is on decisions of individuals or groups, and sometimes on companies or products. While the view on aggregated units is not consistent with an EDM perspective, the view on the decision making of individuals or groups is.

 $^{^2}$ The trait approach refers to an extensive body of literature that tried to identify a specific entrepreneurial personality in the 70s and 80s of the last century (see, e.g., Brockhaus (1982)).

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Summing up, EDM is a perspective bearing the potential of being applied to many research questions in entrepreneurship. Apparently, this perspective has specific requirements regarding the information needed to analyze a research question and it might lead to a shift in focus. For example, a network analysis from the perspective of EDM would partially shift the focus away from the resulting social network structure and draw attention to the determinants of the entrepreneur's decision, whom and how to contact in order to establish a business relationship. The information needed is much more detailed than the information required to understand the structure of the network. The researcher would have to know the information the entrepreneur possesses about the potential partners, her goals and restrictions, and her long-term strategy. In many cases, additional information on her risk propensity, professional background, and social skills would be helpful. Since such detailed information requires controlling, measuring, or manipulating a variety of factors with each individual, experiments are often a method of choice.

This paper tries to make the point that EDM opens an important perspective on entrepreneurship that contributes to our knowledge and is complementary to other perspectives. It might have the potential to become a research paradigm. When the researcher decides to adopt this perspective, it is important to understand which of the different kinds of experiments is appropriate in each situation.

The experiments we are going to propose are often different from those currently used to analyze entrepreneurial cognition or heuristics and biases. An example is a quasi-experiment analyzing whether entrepreneurs are more overconfident than managers, e.g., Busenitz and Barney (1997) propose a test of overconfidence where, instead of making decisions, individuals are asked general knowledge questions. Busenitz and Barney (1997) also conduct a test of the representativeness bias in the same publication — a decision experiment of the type we are going to propose. Here, subjects are given scenarios representing various types of what the authors call real-to-life strategic decisions.

This paper continues with a characterization of the decision-making perspective: it defines the structure of a decision-making process and analyzes an example. We then suggest a classification of experiments,

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explain different experimental designs, describe quality criteria of experiments and address the differences between economic and psychological experiments. The subsequent section discusses existing experimental work on entrepreneurial decision making. In the next section, we develop three "scientific cases" where we start with existing theory, we then delineate the decision-making take on the respective problems, and finally we develop experimental designs to analyze the resulting questions. The final section addresses the question whether EDM might have the potential for becoming a research paradigm and how applying this perspective might contribute to the development of knowledge in entrepreneurship.

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