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The effect of aging on entrepreneurial behavior

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Abstract

Empirical evidence shows that younger individuals are more likely to start a new firm than older ones. As a result, the age distribution of a population may be important for the rate of new firm creation. Building upon Becker's theory of time allocation, we present a model in which individuals select a career path according to the dynamic interplay of age, wealth and risk aversion. Our analysis complements existing literature on the motivations of entrepreneurial behavior and discusses the potential implications of age for individuals' employment status choices.

Keywords: Entrepreneurship; Time allocation; Aging; Decision model; Career choice

1. Executive summary

It is a known empirical fact that new firm creation tends to be a young man's game. The median age of the CEOs of the fastest growing American private companies was 34 in 2001 and 32 in 2000 (*Inc.* 500, 2000, 2001). Also, a recent large cross-country study of new firm creation shows younger people to be more active in new firm creation than older ones (Reynolds et al., 2002). This paper investigates the role of age in motivating entrepreneurial behavior.

Several variables have been identified as triggering factors of entrepreneurship. Such variables can be distinguished between contextual factors and inherent factors. Contextual

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factors, such as education or taxation systems, are features of the socio-economic environment within which entrepreneurial decisions are taken. Inherent factors, such as age or alertness, instead, are characteristics of the individual. The two groups are clearly interdependent. Nevertheless, the distinction is important because it has consequences for the way we think about entrepreneurship. It has also important practical implications since while contextual factors may be altered relatively quickly by exogenous shocks such as policy interventions, inherent factors may not.

In this paper, age is identified as an inherent triggering factor of entrepreneurship. We suggest the existence of a negative relationship between entrepreneurial attitude and age. Building on Becker's theory of time allocation (Becker, 1965), we present a model showing that, for any individual, there exists a threshold age which is critical for the distribution of that individual working time between entrepreneurship and waged labor. Specifically, we show that, after this threshold age is reached, an individual willingness to invest time in starting new firms declines.

If an individual is employed in waged labor, she receives income at the time in which she performs that activity. If an individual allocates time to starting a new firm, instead, she does not receive income instantaneously, but a stream of future returns. Time is a limited resource. As the individual gets closer to extinguishing her time endowment, and her expectation of collecting future payments declines, the subjective discount rate she attaches to future earnings from a new firm increases. Thus, over her life span, the individual's incentives to starting new firms decline. Moreover, income from waged labor is likely to increase over time as the individual gains experience and seniority. This possibility further reduces her incentives to allocate time to starting a new firm.

Our theory of the relationship between age and new firm creation contributes to our understanding of the origins and causes of entrepreneurship. Many variables have been identified as triggering factors of entrepreneurial behavior. To our knowledge, however, a framework accounting for both contextual socio-economic factors and inherent individual characteristics is still lacking. Our simple model allows age, risk propensity and wealth to be time dependent. In our model, individuals select a career path according to the dynamic interplay of these variables. Thus, we provide a way to study new firm creation as the outcome of a complex system whose dynamism, that is, whose ability to mature, change, and adapt, emerges from the interaction of a broad set of psychological and socio-economic variables. We believe that our model has the potential to become a useful tool for the systematic study of new firm creation.

2. Introduction

Recent research on new firm creation shows that entrepreneurial behavior is, to a large extent, an embedded phenomenon and that most of its triggering factors and their relative importance depend on contextual circumstances and may vary significantly in intensity across locations. Jack and Anderson (2002) argue that new firm creation is not merely an economic process but draws from the social context which shapes and forms entrepreneurial outcomes. Chell and Baines (2000) find that the information and