Foundations of High Impact Entrepreneurship

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Boston – Delft

Foundations and Trends® in Entrepreneurship

Published, sold and distributed by:
now Publishers Inc.
PO Box 1024
Hanover, MA 02339
USA
Tel. +1-781-985-4510
www.nowpublishers.com
sales@nowpublishers.com

Outside North America:
now Publishers Inc.
PO Box 179
2600 AD Delft
The Netherlands
Tel. +31-6-51115274

The preferred citation for this publication is Z. J. Acs, Foundations of High Impact Entrepreneurship, Foundations and Trends® in Entrepreneurship, vol 4, no 6, pp 535–620, 2008

ISBN: 978-1-60198-142-4

Foundations and Trends® in Entrepreneurship

Volume 4 Issue 6, 2008

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Foundations and Trends® in Entrepreneurship, 2008, Volume 4, 6 issues. ISSN paper version 1551-3114. ISSN online version 1551-3122. Also available as a combined paper and online subscription.

Foundations and Trends® in
Entrepreneurship
Vol. 4, No. 6 (2008) 535–620

DOI: 10.1561/0300000025

Foundations of High Impact Entrepreneurship*

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Abstract

This survey reviews the theoretical literature on high impact entrepreneurship. The survey is guided in part by the recent classification changes at the *Journal of Economic Literature* (JEL) regarding entrepreneurship. The board voted to create a new classification code, L26, for entrepreneurship. The JEL intends to use this code for all articles and books that focus on economic questions related to entrepreneurial activity. Publications related to questions on occupational choice issues will be cross classified with J23; those focusing on innovation and entrepreneurship will be cross classified with O31; those focusing on finance will be cross classified with G24 Investment

* This project was conceived while I was a scholar in residence at the Kauffman Foundation. I would like to thank Robert E. Litan, Robert J. Strom, William J. Baumol, and Carl J. Schramm for their valuable insights on the early stage of this project and Alyse Freilich for valuable assistance with the manuscript. Sameeksha Desai, Lawrence Plummer, Siri Terjesen and Robert Wuebker assembled the literature and offered valuable insights on several drafts of the manuscript. Section 4 has benefited greatly from my long-term collaboration with David B. Audretsch and our recent project on entrepreneurship and growth with Bo Carlson and Pontus Braunerhjelm. The policy section draws heavily on the Kaufman Roadmap for Entrepreneurship Policy. The Kauffman Foundation provided generous financial support.

Banking, venture capital, brokerage and rating agencies; those focusing on new firms, start ups; and business related publications on how to be an entrepreneur will be cross classified (or solely classified) with M13. What does this economic literature tell us about entrepreneurship? In order to answer the questions this review covers the intersection of entrepreneurship with labor markets, innovation, and capital markets — the three pillars of high impact entrepreneurship.

Keywords: Entrepreneurship; high impact firms; occupational choice; innovation; finance; policy; leveraged start-ups.

JEL codes: L26, O31, J23, G24

Contents

Introduction

Entrepreneurs recognize the latent power and utility of inventions and play a crucial role in bringing those inventions to market. These entrepreneurs — those that Schumpeter described as "the promoters of new combinations" — are individuals who can both see new possibilities and assess market needs (Acs and Audretsch, 2003). *High Impact Entrepreneurship* (HIE) is fundamentally the study of the actions of individuals responding to market opportunities by bringing inventions to market that create wealth and growth. These entrepreneurs are distinct from mere creators of new firms, those that replicate thousands of other establishments. According to Leibenstein (1968, pp. 72, 73, emphasis added):[1]

> "We may distinguish two broad types of entrepreneurial activity: at one pole there is routine entrepreneurship, *which is really a type of management*, and for the rest of the spectrum we have Schumpeterian or "new type" entrepreneurship... By routine entrepreneurship we mean the activities involved in coordinating and

[1] This review therefore does not cover studies on JEL M13.

> carrying on a well established, going concern in which the parts of the production function in use (and likely alternatives to current use) are well known and which operates in well-established and clearly defined markets." By high impact entrepreneurship "… we mean the activities necessary to create or carry on an enterprise where not all the markets are well established or clearly defined and/or in which the relevant parts of the production function are not completely known."

It is certainly the case that replicative entrepreneurs can be of great social significance. However, innovative entrepreneurs — the focus of this essay — ensure the utilization of invention, contribute to increased productivity, and both facilitate and contribute to economic growth. Again Leibenstein (1968, pp. 79, 80):

> The input-completing and gap-filling capacities of the potential entrepreneurial pool determines the response of members of this pool to changes in opportunities and motivational states. An important aspect of the abilities involved is both the perception of economic opportunities and the capacity to assess such opportunities. These are presumably determined in part by factors exogenous to the system such as those involved in nurture, informal training, experience, as well as formal education of individuals.

In recent years, economists have come to recognize the crucial role of entrepreneurs in innovation and growth and the significant contribution of innovation and growth to prosperity and economic welfare (Acs and Armington, 2006; Schramm, 2006; Audretsch, 2007). Innovation and growth — much more than state-guided efforts to ameliorate static "market failures" such as monopoly power — allow economies to lift individuals out of poverty and to provide for growing and aging populations. Leibenstein goes on: (1978, p. 50)

> [Only] those individuals who have the necessary skills to perceive entrepreneurial opportunities, to carry out

> the required input gap filling activities, and to be input-completers can be entrepreneurs.

Indeed, for developed countries high impact entrepreneurship has become the main form of entrepreneurship driving their economies. With this recognition has come a growing interest by the economics profession in the phenomenon of entrepreneurship: the role it plays in the economy, the process of new and innovative business creation, the personal attributes of entrepreneurs, and the public policies that encourage entrepreneurial success.

While this essay will explore and summarize the theoretical literature on high impact entrepreneurship, it is important to note upfront that economics lacks a body of formal theory that corresponds to the other three factors of production — land, labor, and capital (Baumol, 1968, 2005).[2] The absence of the entrepreneur from value theory does not mean that the study of entrepreneurship is void of theory. While no formal value theory exists a large body of literature on labor markets, technological change, and capital markets — the three pillars of high impact entrepreneurship — makes our understanding of the economic landscape far from incomplete. Thus, this essay for the first time seeks to survey the theoretical literature on high impact entrepreneurship in order to address these issues and reveal the policies that do the most to encourage high impact entrepreneurship.[3]

This survey proceeds as follows. After defining the concept, Section 2 frames our discussion of entrepreneurship through the exposition of a collection of stylized facts concerning the rate of entrepreneurship, focusing our attention on high impact entrepreneurship. In Section 3, we examine the question "why do people choose to become entrepreneurs" from the perspective of labor market theories on occupational choice. Section 4 examines the role of entrepreneurship and innovation, paying particular attention to the various modes of available entrepreneurial activity. Section 5 examines the financing of

[2] For an up to date discussion of this issue see Bianchi and Henrekson (2005).

[3] For a review of the broader theoretical and historical literature on entrepreneurship see Parker (2004, 2005), Hebert and Link (2007), Acs and Audretsch (2003) and Casson et al. (2006). For a review of the empirical literature on high impact entrepreneurship, see van Praag and Versloot (2007).

entrepreneurial firms: the resources to them and the issues and limitations associated with various financing options. Finally, we close with a discussion of the policies that theory suggests will enhance the entrepreneurial activity and where researchers should, therefore, focus their efforts. While the policy section is written with the United States in mind and focuses on ways to improve the functioning of the three pillars of high impact entrepreneurship in the United States, the lessons from this analysis should be applicable to other countries, both developed and developing.

1

Definition of High Impact Entrepreneurship

The domain of high impact entrepreneurship (HIE) is parallel to the development of other entrepreneurship literatures — social entrepreneurship, ethnic entrepreneurship, family-owned business, international entrepreneurship, gender and entrepreneurship, self-employment. HIE is a "class" of entrepreneurship. As you might expect there are similarities between types, and important differences. The important differences can be best distinguished by examining the literatures that have floated around HIE but have yet to be integrated as a distinct domain: innovation, occupational choice, human capital, venture capital, endogenous growth, knowledge spillovers, capital markets, entrepreneurial rents, and even the personality bits of traditional entrepreneurship. The goal of HIE is more than growth and change — it is different from other domains primarily because it operates with leverage as its outcome.[1]

We have been poking around like "blind men examining an elephant," touching upon risk-bearing preferences of entrepreneurs, uncertainty, the magic of technical innovation, and the intermediaries that

[1] I would like to thank Robert Wuebker for the following definition of HIE.

have emerged to finance these special firms. HIE is innovation driven, operates in a highly uncertain environment and is Schumpeterian in outcome. Integrating these various literatures gives us a clear picture of what HIE is, where it is aligned with other types of entrepreneurship, and where it is not. HIE is a distinct domain of entrepreneurship research. When seen from this perspective one can surmise that many of the confounds in existing entrepreneurship research are the result of conflating different types of entrepreneurs.

From the new venture process springs the new business forms with which we are familiar: a local clothing boutique; a boulangerie; a local fast-food franchise; Google. The focus of this survey is the latter form at the earliest stage of its development: a sub-specie of entrepreneurial new venture known as a leveraged start-up. Leveraged start-ups are distinct from other types of businesses that get lumped into discussions about other nascent ventures: potential lifestyle businesses, a service business, a franchise, or anything else related to job replacement or job substitution. A company has to be more than small and newly founded to be a leveraged start-up. In this context, a leveraged start-up is a firm engaged in the act of innovation: the development and commercialization of disruptive breakthroughs that shift the wealth creation curve at the industry and the individual level. Often, those participating in a new venture fail to understand the distinction, and there are many entrepreneurs who think that they are engaged in a "leveraged start-up" when they are not: these companies are lifestyle businesses, franchises, consulting firms, and (eventually) venture capital funded zombie companies (Shane, 2008). The latter, however, is in part facilitated by the fact that, "… some percentage of those individuals that form firms to generate and appropriate economic rents do so because they believed they possessed rare knowledge about a market opportunity. Given this belief, these individuals may have behaved in way perfectly consistent with the theory developed here, only to discover that their knowledge was not valuable or not rare or both (Alvarez and Barney, 2004, p. 633)."

Leverage is a key component of any high impact start-up, and entails *being a product business and not a service business.* To be a leveraged start-up you have to be interested in selling one thing to a lot of people rather than a lot of different or semi-custom products to individual clients. This is not a strict dichotomy: products and services business range along a continuum. It is a state of mind, an intention implicit in the notion of being a product business is that start-ups are growth businesses, not job replacement businesses.

Recent research has done a decent job of unpacking the previously confounded distinction between different types of entrepreneurial ventures. Entrepreneurs do not form leveraged start-ups as a substitute for a day job! That is because leveraged start-ups have nothing to do with job replacement. The essence of a leveraged start-up is the opportunity to shift the wealth curve, compress time, and get paid a multiple in the future for doing so. As (Alvarez and Barney, 2004, p. 633) point out: "...this entire analysis is based on the assumption that economic actors are seeking to generate and appropriate economic rents in their organizing decision, and that they are interested in minimizing the costs of doing so."

Understanding the essential nature of the leveraged start-up exchange — *building a growth business and shifting the wealth creation curve* — helps to explain why those engaged in the process of building new ventures and those studying them encourage individuals to start early (Reynolds, 2007). There are some times that are more advantageous than others to be an entrepreneur. How an entrepreneur frames risk is not the issue here. How much attention an entrepreneur can devote to the business, and how aligned their life is for the single-minded pursuit of business success is the crucial success factor.

The leveraged start-up by definition is a new organization founded by an entrepreneur who has identified an opportunity and has decided to act on it. In other words, the opportunity is objective and the recognition of the opportunity is subjective consistent with the theories of Schumpeter, Knight, and Hayek. This *de novo* start-up rests on the three foundations of high impact entrepreneurship. First, occupational choice explains how people choose to become entrepreneurs, why human capital matters, what kind of jobs do they leave and what kind of education do they have. Second, technological change explains how leveraged start-ups impact the economy through innovation by focusing on the knowledge spillover theory of entrepreneurship. In this theory agents in the possession of new knowledge is exogenous to the model and the agent endogenously engages in a leveraged start-up. The firm does not exist exogenously as it does in strategy and most theories of the firm — resource based theory, agency theory or transaction cost economics. Finally, how leveraged start-ups are financed is the final pillar that is examined. Again, venture capital is most applicable for the start-up firm. If the firm is exogenous to the model and endogenously engages in HIE there is no need for the study of leveraged start-ups. We now turn to the stylized facts.

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