Full text available at: http://dx.doi.org/10.1561/0300000071

Start-up Actions and Outcomes: What Entrepreneurs Do to Reach Profitability

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Foundations and Trends® in Entrepreneurship

Published, sold and distributed by:
now Publishers Inc.
PO Box 1024
Hanover, MA 02339
United States
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

P. D. Reynolds. *Start-up Actions and Outcomes: What Entrepreneurs Do to Reach Profitability*. Foundations and Trends® in Entrepreneurship, vol. 12, no. 6, pp. 443–559, 2016.

This Foundations and Trends® issue was typeset in LaTeX using a class file designed by Neal Parikh. Printed on acid-free paper.

ISBN: 978-1-68083-229-7

Foundations and Trends® in Entrepreneurship
Volume 12, Issue 6, 2016

Editorial Board

Full text available at: http://dx.doi.org/10.1561/0300000071

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Foundations and Trends® in Entrepreneurship, 2016, Volume 12, 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. 12, No. 6 (2016) 443–559

DOI: 10.1561/0300000071

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*Comments of the editors and an anonymous reviewer were the basis for substantial improvements in the presentation and were much appreciated. The author, however, is fully responsible for all errors of commission or omission.

Contents

Abstract

Globally, hundreds of millions enter the firm creation process every year. About a third will actually develop a profitable new firm. Understanding how these successful efforts reach initial profits has been a major challenge for entrepreneurial scholars. A recently developed research protocol has involved systematic collection of data on the start-up activities of representative samples of nascent ventures and tracking their outcomes; a number of Panel Study of Entrepreneurial Dynamics [PSED] projects have been completed. Assembling data from five PSED cohorts in four countries has allowed for attention to the effect of start-up activities on the outcomes of a harmonized sample of 2,500 nascent ventures. There is no difference in outcomes related to the gender of the nascent entrepreneur, a small effect associated with age, and modest impacts associated with educational attainment, work history, and experience with other start-up initiatives. There is a systematic country effect; the U.S. has a lower proportion of profitable new firms than Australia, China, or Sweden. Many aspects of the start-up effort are related to the outcomes. A greater range of start-up activities early in the start-up process is associated with profitability, less terminations, and fewer with a long tenure in the start-up process. Activities emphasizing promotion of the nascent venture, assembling a firm infrastructure, and implementing a production process are associated with initial profitability and fewer terminations. Business planning increases the tendency to quit and reduces the proportion active in the start-up process. It may reduce the time to reach disengagement. Implementing of promotion, infrastructure development, and establishing a production process also reduces the time to reach initial profits. The results have implications for both aspiring entrepreneurs and policy development.

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DOI: 10.1561/0300000071

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Introduction

Business creation, a fundamental feature of entrepreneurship, is not only widespread, with over 250 million efforts in place around the world, it is a core aspect of modern market economies.[1] New firms are a major source of new jobs, economic innovation and adaptation, as well as a major career option for hundreds of millions.[2] There is now substantial interest in facilitating firm creation by political leaders at all levels of government in all parts of the world, to say nothing of the strong attraction for millions of young adults exploring work career options. This has led to considerable efforts to promote business creation by educational institutions, government agencies, not for profits, and international organization. A substantial commercial sector facilitating entrepreneurship has also emerged.

Business creation can be considered a two-stage process. The first stage, entry into the start-up process, begins when individuals or a team takes action to create a new business. The second stage involves the efforts to create a profitable firm, which is completed by a transition to

[1] Estimates of the scope of participation are provided in Reynolds (2012, 2015a).

[2] Summary overview by Van Praag and Versloot, 2007. A recent assessment on job creation is provided by Lawless (2014).

profitability or disengagement. While a number of factors may affect achieving profitability, most would assume that what is done in the start-up process has a major effect. There is no shortage of books, programs, seminars, workshops, media experts, and the like standing ready to offer advice on how entrepreneurs should proceed. This mass of cheerleaders and coaches find it exciting and profitable to promote entrepreneurship, particularly if someone else bears the risks.

But what is the risk? What proportion of those coordinating people, resources, and ideas to implement a new venture actually reach profitability? The best available evidence suggests that only one in three active in business creation achieve initial profits after six years.[3]

The majority of start-up efforts, therefore, do not reach profitability. While the positive impact of vigorous business creation on economic growth is widely recognized, the total social cost of the entrepreneurial sector is not well understood. And until a nascent venture reach profitability, the owners—and sponsors—will not recoup their financial investments and the start-up team will have little—except experience—to show for their sweat equity. An analysis of the early years of the sunk costs associated with two U.S. cohorts of nascent ventures found that 80% of the time and money invested in start-ups were in ventures that did not achieve profitability a year after entering the process.[4] While the average invested in still-born start-ups is less than those achieving profitability, the much larger number of initiatives leads to a larger aggregate sunk costs.

But the development of effective educational procedures and public policies to promote firm creation has been hampered by little reliable knowledge about the entrepreneurial process. There is little solid information on a wide range of issues, such as:

- What proportion of start-up efforts reach initial profits?

[3]This is consistent with a recent global assessment comparing the prevalence of those in the pre-profit phase with the prevalence of those managing a new firm, profitable for up to 18 months (Bergmann and Stephan, 2012). Across 48 countries there were about three nascent entrepreneurs in the pre-profit stage for each new firm owner.

[4]Reynolds and Curtin (2009).

- How long does it take to determine the outcome after entering business creation?
- What do start-up teams do to implement new firms?[5]
- What is unique about efforts that become profitable new firms?

The major complication has been the absence of reliable, detailed descriptions of representative samples of nascent ventures during the start-up process. This would involve longitudinal data collection that tracks a cohort of nascent ventures from the beginning, when the first steps are taken to implement a new firm, to the final resolution, when the initiative has either reached initial profits or been abandoned by the start-up team. Such projects have now been completed and this unique resource is the basis for the following analysis.

The primary objective of this assessment is to provide a description of the firm creation process based on five harmonized data sets from four countries that track the business creation process. As all are based on representative samples, this is an unprecedented portrayal.

The second objective is to explore the role of start-up activities on the outcomes for these nascent ventures. Outcomes include not only whether they reach profitability or disengage but how long it takes to achieve a resolution. The sooner a start-up team can determine if a nascent venture is profitable or hopeless the lower the sunk costs.

The presentation begins with a review of the conceptualization of business creation, followed by a discussion of assessments of the role of business planning, the start-up activity that has received the most attention in relation to outcomes. A summary of the Panel Study of Entrepreneurial Dynamics (PSED) protocol describes the basis for the five cohort data set. Description of the outcomes reported in the first 72 months after entering the start-up process clarifies the nature of the dependent variables. Presenting the prevalence and timing of 19 activities associated with the start-up process provides a unique, detailed

[5]There is an enormous literature of participant observation of "firms in development," often gathering much retrospective information, using samples of convenience (Mueller, Volery, and von Siemens, 2012). The following assessment is distinctive in utilizing representative samples of nascent ventures.

description of how nascent teams pursue business creation. Attention to the effect of specific activities on the outcomes indicates the presence of complex interrelationships. A factor analysis is the basis for multi-item indices that represent six domains of start-up activity. All start-up domains have a significant relationship to the outcomes and the time required to reach an outcome.

To identify the impact of different background factors and start-up domains on outcomes two assessments are completed. First, linear additive models are developed using stepwise regression. Second, interactions among factors are identified using a three level decision tree assessment. In both there are major differences related to the host country and the total amount of start-up activity. To identify the impact of specific start-up domains, the assessments are replicated without measures of total start-up activity. The final section summarizes the major patterns and the implications for those starting new firms, developing public policy, or planning the next stages of research.

Most analysis of start-up activity that may affect outcomes has focused on the development of business plans. Most of this, however, has considered business planning in isolation; there has been little research comparing the implementation of business planning in relation to the impact of other activities associated with the start-up process. The following assessment indicates a statistically significant relationship between business planning and outcomes, but with less impact than other start-up activities. Efforts to determine customer acceptance and organize a new venture appears to be have more impact on the outcomes. The major benefit of business planning appears to be on reducing the time required to reach an outcome. It is highly associated with speeding up decisions to abandon a start-up venture.

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